

October 25, 2019

Mr. Steven Morgan, Air & Solid Waste Permitting Manager  
Permitting & Waste Cleanup Program  
Florida Department of Environmental Protection  
13051 North Telecom Parkway  
Temple Terrace, FL 33637-0926

**RE: Response to First Request for Additional Information (RAI)**  
**Pasco County – Solid Waste**  
**Facility Name: Enterprise Road Class III Recycling and Disposal**  
**Facility Site ID: 87895**  
**DEP Application No.: 177982-029-SO/T3**

Dear Mr. Morgan:

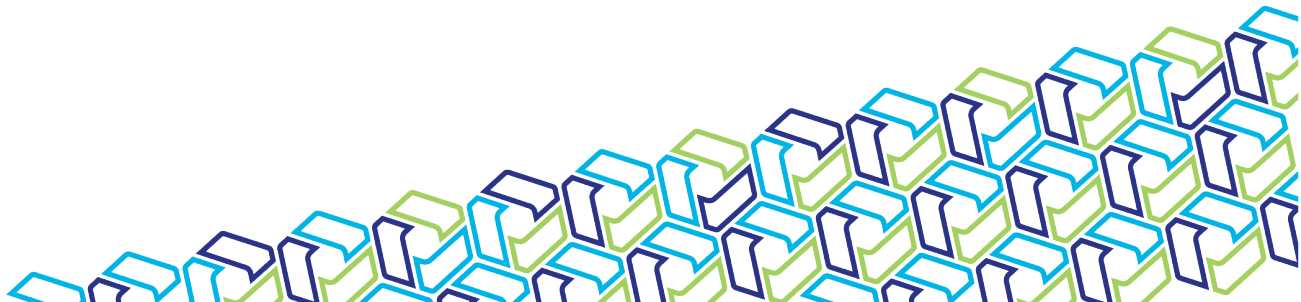
Thank you for your review of the application for a minor modification to the operations permit submitted on July 11, 2019 for the above referenced facility. The following information is provided in response to the Department's First Request for Additional Information (RAI) letter dated August 2, 2019. Information is provided in the order requested in the referenced correspondence. In each case, the Department's request is stated in *italics* with the response immediately following in **bold**.

***Application to Construct, Operate, Modify, or Close a Solid Waste Management Facility (DEP Form # 62-701.900(1), F.A.C.), dated and received July 11, 2019***

*Application Cover Letter & Cover Page*

1. *The facility WACS No. is incorrectly listed as SWD/29/41084 in the cover letter and the application cover page. Please correct the WACS No. to SWD/51/87895.*

**Response to Comment 1: The facility WACS No. has been corrected.**



### Introduction

2. *The Operations permit # referenced in this section is incorrect. The permit # should be 177982-028-SO/T3. Please revise.*

**Response to Comment 2:** The operation permit number referenced in the introduction has been corrected.

### Section 1 - Permit Application [Rule 62-701.330(3), F.A.C.]

3. *Part A.7.: The datum used to obtain the latitude/longitude coordinates was listed as "National Geodetic Vertical Datum of 1929 (NGVD 29)". This is a vertical, not horizontal datum. Please revise to reflect the proper horizontal datum used (i.e. North American Datum of 1983 (NAD83)).*

**Response to Comment 3:** The datum listed in the permit application has been corrected.

4. *Part A.17.: The expected weight of waste is given as 550 +/- tons/day. This is inconsistent with the amount provided throughout the rest of the application documents (approx. 1500 tons/day).*

**Response to Comment 4:** The expected weight of waste has been consistently updated throughout the application to reflect 1500 +/- ton/day.

5. *Part G.2.f.(4)(a) through (d), (f) and (g): The application form indicates specifications from the listed parts are provided in the Engineering Report. However, it does not appear these specifications were supplied with Section 3 of this application. Please review and revise this part accordingly.*

**Response to Comment 5:** Part G of the application has been revised accordingly.

### Section 3 - Engineering Report [Rules 62-701.320(7)(d) & 62-701.330(3)(d), F.A.C.]

6. *3.1 General: This section indicates the report is part of a permit renewal application. Please revise this section to describe this permit modification application.*

**Response to Comment 6:** Section 3.1 has been revised accordingly.

7. *3.5 Soils: The report indicates Astatula fine sand has a seasonal high water-table that is typically at 72 inches. However, the cited reference indicates the high water table for Astatula fine sand is at a depth greater than 72 inches. Please revise section accordingly.*

**Response to Comment 7:** Section 3.5 has been revised accordingly.

8. *3.7 Excavation Operations and Cell Construction: Please provide additional details on how the minimum requirements for the liner will be achieved.*

**Response to Comment 8:** Section 3.7 has been revised accordingly.

9. *3.8 Method of Cell Sequence:*

- a. *Phasing Sequence 3: Please revise to indicate the top of waste will be graded from 212' to 217'.*



- b. *Phasing Sequence 4: See Comment #30, below. Please include the correct percent range for the top grade of the cover system.*

**Response to Comments 9a and 9b:** Section 3.8 has been revised accordingly.

10. *3.8.1 Vertical Expansion / Conceptual Closure: The final sentence of this section indicates the top to be sloped from 1% to 2% grade and side slopes to have slope of 3:1V and 4H:1V. However, this is inconsistent with the Phasing Sequence 4 conceptual closure drawings in the Plan Set. Please revise text and/or drawings accordingly.*

**Response to Comment 10:** Section 3.8.1 has been revised to accurately reflect the plan set.

11. *3.8.2 Erosion Control: The third bullet discusses after construction of the clay layer, “begin to fill against Cell 7 2H:1V slope”. This appears to be obsolete. Please review text and remove or revise accordingly.*

**Response to Comment 11:** The bullet in question listed in Section 3.8.2 has been removed.

12. *3.8.3 Life Expectancy: The bulleted assumptions utilized to build the three-dimensional AutoCAD model for cell capacity appears to use side slopes ratios, bench elevations and waste elevations in the calculation that are inconsistent with those provided in the Plan Set and the Operation Plan. Please recalculate using the most recent conceptual closure numbers and revise section, including airspace volume remaining and remaining life, accordingly.*

**Response to Comment 12:** Section 3.8.3 has been revised accordingly.

13. *3.10.1.1 Gas Probe Locations: Please revise the text to indicate: GP 1 through 5 and 16 are proposed and will be installed as part of future cell construction or completion certification at closure.*

**Response to Comment 13:** Section 3.10.1.1 has been revised accordingly. Gas probe locations have been updated to accurately reflect existing conditions which now include GP-4 and GP-5. GP-1, GP-2, GP-3 and GP-16 are the remaining probes still to be installed.

14. *3.10.2 Leachate Control: Please revise discussion to indicate that if leachate is discovered to be hazardous, it will be managed as hazardous waste.*

**Response to Comment 14:** Section 3.10.2 has revised accordingly.

15. *Table 3.10 - Gas Probe Installation Schedule:*

- a. *The table does not include information on gas probes GP-4 and GP-5. Please revise to include these gas probes in the table.*
- b. *The table footnotes appear obsolete as all gas probes that were located immediately adjacent to the disposal area have been removed and replaced with probes along the east property boundary. Please remove/revise footnotes accordingly.*

**Response to Comments 15a and 15b:** Gas probes GP-4 and GP-5 are currently installed. The table footnotes have been revised accordingly.

16. 3.11 Erosion Control: This section indicates the landfill side slopes will be constructed at 3H:1V from base grade to elevation 220' NGVD. This elevation is inconsistent with the elevation provided in the Plan Set and the Operation Plan. Please revise text accordingly (to 212' NGVD).

**Response to Comment 16:** Section 3.11 has been revised accordingly.

17. 3.15 Certification: Please provide additional discussion and descriptions of field test methods, including rejection criteria and corrective measures to insure proper soil liner.

**Response to Comment 17:** Section 3.15 has been revised accordingly to include additional information.

Section 3 - Appendix 3-A Operations Plan [Rule 62-701.330(3)(i), F.A.C. & Rule 62-701.500(2), F.A.C.]

18. 1.0 Designation of Responsible Person(s) and References: This section indicates "[u]pdated plan sheets and figures are provided in Sections 3 and 4". Please revise to clarify as only updated plan sheets were provided in Section 4 and that the Section 3 figures were unchanged and therefore are referenced and not provided as part of this application.

**Response to Comment 18:** Section 1.0 of Appendix 3-A has been revised accordingly.

19. 8.2 Erosion Control: The first bullet discusses after construction of the clay layer, "begin to fill against the 2H:1V slope". This appears to be obsolete. Please review and remove/revise accordingly.

**Response to Comment 19:** Section 8.2 of Appendix 3-A has been revised accordingly.

20. 10.2 Leachate Control: Please revise discussion to indicate that if leachate is discovered to be hazardous, it will be managed as hazardous waste.

**Response to Comment 20:** Section 10.2 of Appendix 3-A has been revised accordingly.

21. 15.0 Landfill Personnel: The operating hours included in the typical work schedule table does not match the hours of operation listed on the Facility Entrance Sign (Attachment 1). Please revise table and/or Attachment 1 accordingly.

**Response to Comment 21:** Section 15.0 of Appendix 3-A has been revised accordingly.

22. 17.0 Equipment Inventory: The equipment inventory list does match the equipment listed as currently onsite at the facility as provided in Section 4.0 of the Operation Plan. Please review and revise accordingly.

**Response to Comment 22:** Section 17.0 has been revised accordingly.

23. 23.0 Certification: Please provide additional discussion and descriptions of field test methods, including rejection criteria and corrective measures to insure proper soil liner.

**Response to Comment 23:** Section 23.0 of Appendix 3-A has been revised to include additional information.

24. Attachment 1 – Facility Entrance Sign: See Comment #21, above. If the hours of operation listed in Section 15.0 of the Operation Plan are correct, please update the entrance sign and provide photographic documentation.

**Response to Comment 24:** The facility entrance sign photograph is accurate and current.

25. Attachment 4 – Gas Monitoring Survey Form: Section 3.10.1.1 of the Engineering Report indicates that GP-16 is a proposed monitoring location. However, this form does not indicate gas probe GP-16 as being “not installed”. Please revise form accordingly.

**Response to Comment 25:** Attachment 4 of Appendix 3-A has been revised accordingly.

26. Attachment 6 - Training Certificates [Rule 62-701.320(15)(b), F.A.C.]: The supplied training certificates are out of date. Please provide updated training certificates.

**Response to Comment 26:** Attachment 6 of Appendix 3-A has been updated with up to date training certificates.

Section 3 - Appendix 3-B Contingency Plan [Rule 62-701.320(7)(e)2., F.A.C.]

27. 1.2 Major Storm or Disaster 5.: This section indicates the emergency equipment locations, such as first aid and eye wash stations, are shown on Site Plan. However, the Site Plan included in the Plan Set (Section 4.0), does not have these items labeled. Please review and revise text and/or drawing accordingly.

**Response to Comment 27:** Section 1.2 of Appendix 3-B has been revised accordingly.

Section 4 - Operations Plan Minor Modification Permit Plan Set [Rule 62-701.320(7)(f) & 62-701.330(3)(b), F.A.C.]

28. Drawing C0.02 – Aerial Site Plan: Pond No.3. is existing and the TOP and BTM elevations are not provided. Please revise drawing accordingly.

**Response to Comment 28:** Drawing C0.02 of the Operations Plan minor Modification Permit Plan Set has been revised accordingly.

29. Drawing C0.03 – Site Plan:

- a. The map symbol for gas probe GP-11 indicates the probe is “to be abandoned”. However, GP-11 has already been abandoned. Please remove GP-11 from the site map.
- b. The map symbol for gas probe GP-11R indicates it is a “future gas probe location”; however, this gas probe has already been installed. Please revise the map symbol for this probe to indicate it as a “gas probe location”.

**Response to Comments 29a and 29b:** Drawing C0.03 of the Operations Plan minor Modification Permit Plan Set has been revised accordingly.

30. Drawing C3.00 – Phasing Sequence No. 4 Conceptual Closure: The top of concept closure indicates final top slopes of 2% MIN and 4% MAX which appears inconsistent with the percent range of top

*slopes indicated within Sections 3 and Appendix 3-A. Please review and revise drawing/text accordingly.*

**Response to Comment 30:** Drawing C3.00 is consistent with final closure procedures. Sections 3 in Appendix 3-A have been edited and are included with this response.

*31. Drawing C3.10 – Phasing Sequence No. 4 Conceptual Closure Sections: See Comment #30, above and revise drawing accordingly.*

**Response to Comment 31:** Drawing C3.00 is consistent with final closure procedures. Sections 3 in Appendix 3-A have been edited and are included with this response.

*Section 5 - Groundwater Monitoring Plan [Rule 62-701.510, F.A.C.]*

*32. 1.e. Surface Water Monitoring Requirements: This section references an outdated operation permit which has been replaced with the current permit #177982-028-SO/T3. Please revise section accordingly.*

**Response to Comment 32:** The Groundwater Monitoring Plan in Section 5 has been revised accordingly.

*33. 1.g.(2) Sampling Frequency and Requirements: This section references an outdated water quality monitoring plan evaluation report (2012 WQMPE). Please revise text to refer to the most recent flow velocity determination submitted within the Groundwater Monitoring Technical Report 2015 – 2017, dated March 2018.*

**Response to Comment 33:** The Groundwater Monitoring Plan in Section 5 has been revised accordingly.

*34. Figure 1 – Site Map:*

- a. The map symbol for gas probe GP-14 indicates the probe is current “gas probe location”. However, GP-14 has already been abandoned. Please remove GP-14 from the site map.*
- b. The map symbol for gas probe GP-14R indicates it is a “future gas probe location”; however, this gas probe has already been installed. Please revise the map symbol for this probe to indicate it as a “gas probe location”.*
- c. The site map does not show the locations of monitoring wells MW-3, MW-3B and MW-17B which are scheduled to be abandoned during the construction of Cell 17. This is inconsistent with Drawing C0.03 of the Plan Set which shows the monitoring wells with map symbols indicating they are to be abandoned. Please revise Figure 1 to include the wells.*

**Response to Comments 34a, 34b and 34c:** Figure 1 in Section 5 Groundwater Monitoring Plan has been revised to accurately reflect existing conditions. MW-3, MW-3B and MW-17B were abandoned on July 3<sup>rd</sup>, 2019. Abandonment documentation was submitted to the Southwest Florida Water Management District on July 9<sup>th</sup>, 2019. District documentation can be found in Exhibit 2.

Please feel free to call me or John Locklear at (352) 672-6867 with any questions regarding this submittal.

Sincerely,

*Lisa Baker*

Lisa J. Baker, P.E.  
Engineering Division Director  
Locklear & Associates

cc: John Arnold, Angelo's Recycled Materials  
John Locklear, Locklear & Associates

Attachments

Exhibit 1:	Revised Permit Renewal Application
Exhibit 2:	Well Abandonment Documentation

## **Exhibit 1**

### **Revised Permit Renewal Application**

**MINOR MODIFICATION PERMIT APPLICATION  
FOR THE  
ENTERPRISE ROAD CLASS III RECYCLING AND DISPOSAL FACILITY**

WACS Facility ID: 87895  
WACS No.: SWD/~~2951~~/~~4108487895~~  
Operations Permit No.: 177982-~~024028~~-SO/T3

*Prepared for:*

**ANGELO'S AGGREGATE MATERIALS, LTD.**  
855 28<sup>th</sup> Street South  
St. Petersburg, Florida 33712

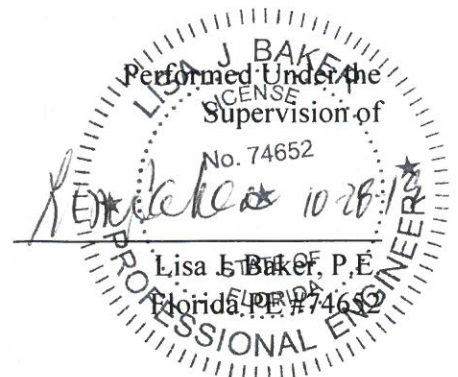
*Presented to:*

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SOLID WASTE SECTION**  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

*Prepared by:*

**LOCKLEAR AND ASSOCIATES, INC.**  
4140 NW 37 Place, Suite A  
Gainesville, Florida 32606  
Certificate of Authorization #30066

~~JULY~~OCTOBER 2019



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NOTE: Contents page is from the 2018 Permit Renewal Application submitted by Locklear & Associates, Inc. Only items in **BOLD** are provided in the current application package. The remaining items are unchanged.

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### SECTION 2 CHECKLIST SUPPORT

#### PART C PROHIBITIONS

#### C-1 WELL INVENTORY

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#### I-2 SLOPE STABILITY ANALYSIS



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## INTRODUCTION

Locklear & Associates, Inc. (L&A) is submitting one (1) copy of the completed Form 62-701.900(1), F.A.C. and all supporting documentation for the modification of Solid Waste Operations Permit 177982-~~024028~~-SO/T3 on behalf of Angelo's Aggregate Materials, LTD (Applicant) for the Enterprise Road Class III Recycling and Disposal Facility (Facility) located in Pasco County, Florida. L&A has been authorized by the Applicant to act on its behalf in the preparation and submittal of this document. A letter of authorization was previously provided.

In accordance with Rule 62-701.320, F.A.C., facility information that was submitted to the Department to support the current permits, and which is still valid, has not been re-submitted for permit modification. This permit modification application lists and reaffirms the information that was previously provided to the Department that is still valid. Information related to the specific modification requests has been revised/consolidated/updated and is being resubmitted as discussed herein.

The application generally involves modifying the current permit to allow for: (1) the operation of an approximately 14.5 acre lateral expansion referred to as Cell 17; and (2) a vertical expansion of the entire permitted facility (Cells 1-7, 15-17) to a new maximum height of 220 feet with 3H:1V side slopes.

## **SECTION 1**

# **APPLICATION FOR PERMIT TO CONSTRUCT, OPERATE, MODIFY, OR CLOSE A SOLID WASTE MANAGEMENT FACILITY**

**DEP FORM 62-701.900(1)**



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

DEP Form #: 62-701.900(1), F.A.C.

Form Title: Application to Construct, Operate, Modify, or  
Close a Solid Waste Management Facility

Effective Date: February 15, 2015

Incorporated in Rule: 62-701.330(3), F.A.C.

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

### APPLICATION TO CONSTRUCT, OPERATE, MODIFY, OR CLOSE A SOLID WASTE MANAGEMENT FACILITY

### APPLICATION INSTRUCTIONS AND FORMS

Northwest District  
160 Governmental Street  
Suite 308  
Pensacola, FL 32502-5794  
850-595-8300

Northeast District  
7777 Baymeadows Way West  
Suite 100  
Jacksonville, FL 32256-7590  
904-256-1700

Central District  
3319 Maguire Boulevard  
Suite 232  
Orlando, FL 32803-3767  
407-897-4100

Southwest District  
13051 North Telecom Pkwy  
Temple Terrace, FL 33637  
813-470-5700

South District  
2295 Victoria Ave, Suite 364  
P.O. Box 2549  
Fort Myers, FL 33901-3881  
239-344-5600

Southeast District  
3301 Gun Club Road  
MSC 7210-1  
West Palm Beach, FL 33406  
561-681-6600

## INSTRUCTIONS TO APPLY FOR A SOLID WASTE MANAGEMENT FACILITY PERMIT

### I. General

Solid Waste Management Facilities shall be permitted pursuant to Section 403.707, Florida Statutes (FS) and in accordance with Florida Administrative Code (FAC) Chapter 62-701. A permit application shall be submitted in accordance with the requirements of Rule 62-701.320(5)(a), F.A.C., to the appropriate Department office having jurisdiction over the facility. The appropriate fee in accordance with Rule 62-701.315, FAC, shall be submitted with the application by check made payable to the Department of Environmental Protection (DEP).

Complete appropriate sections for the type of facility for which application is made. Entries shall be typed or printed in ink. All blanks shall be filled in or marked "Not Applicable" or "No Substantial Change". Information provided in support of the application shall be marked "Submitted" and the location of this information in the application package indicated. The application shall include all information, drawings, and reports necessary to evaluate the facility. Information required to complete the application is listed on the attached pages of this form.

### II. Application Parts Required for Construction and Operation Permits

- A. Landfills and Ash Monofills - Submit Parts A through S
- B. Asbestos Monofills - Submit Parts A, B, C, D, E, F, I, K, M, O through S
- C. Industrial Solid Waste Disposal Facilities - Submit Parts A through S

**NOTE:** Portions of some Parts may not be applicable.

**NOTE:** For facilities that have been satisfactorily constructed in accordance with their construction permit, the information required for A, B and C type facilities does not have to be resubmitted for an operation permit if the information has not substantially changed during the construction period. The appropriate portion of the form should be marked "no substantial change".

### III. Application Parts Required for Closure Permits

- A. Landfills and Ash Monofills - Submit Parts A, B, L, N through S
- B. Asbestos Monofills - Submit Parts A, B, M, O through S
- C. Industrial Solid Waste Disposal Facilities - Submit Parts A, B, L through S

**NOTE:** Portions of some Parts may not be applicable.

### IV. Permit Renewals

The above information shall be submitted at time of permit renewal in support of the new permit. However, facility information that was submitted to the Department to support the expiring permit, and which is still valid, does not need to be re-submitted for permit renewal. Portions of the application not re-submitted shall be marked "no substantial change" on the application form.

**V. Application Codes**

S	-	Submitted
LOCATION	-	Physical location of information in application
N/A	-	Not Applicable
N/C	-	No Substantial Change

**VI. Listing of Application Parts**

PART A:	GENERAL INFORMATION
PART B:	DISPOSAL FACILITY GENERAL INFORMATION
PART C:	PROHIBITIONS
PART D:	SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL
PART E:	LANDFILL PERMIT REQUIREMENTS
PART F:	GENERAL CRITERIA FOR LANDFILLS
PART G:	LANDFILL CONSTRUCTION REQUIREMENTS
PART H:	HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS
PART I:	GEOTECHNICAL INVESTIGATION REQUIREMENTS
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PART N:	GAS MANAGEMENT SYSTEM REQUIREMENTS
PART O:	LANDFILL CLOSURE REQUIREMENTS
PART P:	OTHER CLOSURE PROCEDURES
PART Q:	LONG-TERM CARE
PART R:	FINANCIAL ASSURANCE
PART S:	CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

**STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
APPLICATION FOR A PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE A  
SOLID WASTE MANAGEMENT FACILITY**

Please Type or Print

**PART A. GENERAL INFORMATION**

1. Type of disposal facility (check all that apply):

- |  |  |
|--|--|
| <input type="checkbox"/> Class I Landfill              | <input type="checkbox"/> Ash Monofill      |
| <input checked="" type="checkbox"/> Class III Landfill | <input type="checkbox"/> Asbestos Monofill |
| <input type="checkbox"/> Industrial Solid Waste        |  |
| <input type="checkbox"/> Other (describe):             |  |
- 
- 
- 

**NOTE:** Waste Processing Facilities should apply on Form 62-701.900(4), FAC;  
Yard Trash Disposal Facilities should notify on Form 62-701.900(3), FAC;  
Compost Facilities should apply on Form 62-709.901(1), FAC; and  
C&D Disposal Facilities should apply on Form 62-701.900(6), FAC

2. Type of application:

- ☐ Construction  
☒ Operation  
☐ Construction/Operation  
☐ Closure  
☐ Long-term Care Only

3. Classification of application:

- |                                  |  |
|----------------------------------|--|
| <input type="checkbox"/> New     | <input type="checkbox"/> Substantial Modification      |
| <input type="checkbox"/> Renewal | <input type="checkbox"/> Intermediate Modification     |
|                                  | <input checked="" type="checkbox"/> Minor Modification |

4. Facility name: Enterprise Road Class III Recycling and Disposal Facility

5. DEP ID number: SWD/51/87895 County: Pasco

6. Facility location (main entrance):

The main entrance gate is on the north side of Enterprise Road, 1.5 miles east  
C.R. 35 Alt. The address is 41111 Enterprise Road in Dade City, Florida 33525.

7. Location coordinates:

Section: 5 and 8 Township: 25 S Range: 22 E  
Latitude: 28 ° 19 ' 53 " Longitude: 82 ° 08 ' 06 "  
Datum: NAD83 Coordinate method: State Plane West

Collected by: Professional Land Surveyor Company/Affiliation: Picket Surveying and Photogrammetry

8. Applicant name (operating authority): Angelo's Aggregate Materials, Ltd.  
Mailing address: 855 28th St. South St. Petersburg FL 33712  
Street or P.O. Box City State Zip  
Contact person: John Arnold, P.E. Telephone: (813) 477-1719  
Title: Director of Engineering & Facilities  
john.phillip.arnold@gmail.com  
E-Mail address (if available)
9. Authorized agent/Consultant: Locklear & Associates, Inc.  
Mailing address: 4140 NW 37th Place, Suite A Gainesville FL 32606  
Street or P.O. Box City State Zip  
Contact person: Lisa Baker, P.E. Telephone: (352) 672-6867  
Title: Engineering Division Director  
lisa@locklearconsulting.com  
E-Mail address (if available)
10. Landowner (if different than applicant): Same as Applicant  
Mailing address: \_\_\_\_\_  
Street or P.O. Box City State Zip  
Contact person: \_\_\_\_\_ Telephone: (\_\_\_\_) \_\_\_\_\_  
\_\_\_\_\_  
E-Mail address (if available)
11. Cities, towns, and areas to be served:  
Pasco County and surrounding areas  
\_\_\_\_\_  
\_\_\_\_\_
12. Population to be served:  
Current: 515,077 (Pasco County 2018 Census Est) Five-Year Projection: 554,625 (Pasco County 2023 Projections)
13. Date site will be ready to be inspected for completion: N/A
14. Expected life of the facility: 11+ years
15. Estimated costs:  
Total Construction: \$ N/A Closing Costs: \$ \_\_\_\_\_
16. Anticipated construction starting and completion dates:  
From: Ongoing To: Ongoing
17. Expected volume or weight of waste to be received:  
\_\_\_\_\_ yds<sup>3</sup>/day 1500 +/- tons/day \_\_\_\_\_ gallons/day



**PART B. DISPOSAL FACILITY GENERAL INFORMATION**

1. Provide brief description of disposal facility design and operations planned under this application:  
This application is submitted as a modification of operations for an existing  
permitted Class III landfill to include Cell 17.

2. Facility site supervisor: Alfredo "Freddie" Martinez  
Title: Landfill Manager Telephone: (352) 567-7676

N/A  
E-Mail address (if available)

3. Disposal area: Total acres: 81.4 Used acres: 67.0 Available acres: 14.4

4. Weighing scales used: ☒ Yes ☐ No

5. Security to prevent unauthorized use: ☒ Yes ☐ No

6. Charge for waste received: +/- \$9.00 \$/yds<sup>3</sup> \_\_\_\_\_ \$/ton

7. Surrounding land use, zoning:

- |  |  |
|--|--|
| <input type="checkbox"/> Residential             | <input type="checkbox"/> Industrial        |
| <input checked="" type="checkbox"/> Agricultural | <input type="checkbox"/> None              |
| <input type="checkbox"/> Commercial              | <input type="checkbox"/> Other (describe): |

Surrounding zoning is AC (Agricultural Commercial) and AR (Agricultural Residential).

8. Types of waste received:

- |   |  |
|---|--|
| <input type="checkbox"/> Household              | <input checked="" type="checkbox"/> C & D debris       |
| <input type="checkbox"/> Commercial             | <input checked="" type="checkbox"/> Shredded/cut tires |
| <input type="checkbox"/> Incinerator/WTE ash    | <input checked="" type="checkbox"/> Yard trash         |
| <input type="checkbox"/> Treated biomedical     | <input type="checkbox"/> Septic tank                   |
| <input type="checkbox"/> Water treatment sludge | <input type="checkbox"/> Industrial                    |
| <input type="checkbox"/> Air treatment sludge   | <input type="checkbox"/> Industrial sludge             |
| <input type="checkbox"/> Agricultural           | <input type="checkbox"/> Domestic sludge               |
| <input checked="" type="checkbox"/> Asbestos    | <input checked="" type="checkbox"/> Other (describe):  |

Class III waste

9. Salvaging permitted: ☐ Yes ☒ No
10. Attendant: ☒ Yes ☐ No      Trained operator: ☒ Yes ☐ No
11. Trained spotters: ☒ Yes ☐ No      Number of spotters used: 1 - 2
12. Site located in: ☐ Floodplain      ☐ Wetlands      ☒ Other (describe):  
Orange groves
- 
13. Days of operation: Monday through Friday, Saturday
14. Hours of operation: 7 am to 6 pm (M-F); 7 am - 2 pm (Sat)
15. Days working face covered: Once per week
16. Elevation of water table: 55 - 70 ft. Datum Used: NGVD 29
17. Number of monitoring wells: 32
18. Number of surface monitoring points: 0
19. Gas controls used: ☒ Yes ☐ No      Type controls: ☐ Active ☒ Passive
- Gas flaring: ☐ Yes ☒ No      Gas recovery: ☐ Yes ☒ No
20. Landfill unit liner type:
- |   |  |
|---|--|
| <input type="checkbox"/> Natural soils                | <input type="checkbox"/> Double geomembrane      |
| <input checked="" type="checkbox"/> Single clay liner | <input type="checkbox"/> Geomembrane & composite |
| <input type="checkbox"/> Single geomembrane           | <input type="checkbox"/> Double composite        |
| <input type="checkbox"/> Single composite             | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Slurry wall                  | <input type="checkbox"/> Other (describe):       |
- 
21. Leachate collection method:
- |   |   |
|---|---|
| <input type="checkbox"/> Collection pipes             | <input type="checkbox"/> Double geomembrane |
| <input type="checkbox"/> Geonets                      | <input type="checkbox"/> Gravel layer       |
| <input type="checkbox"/> Well points                  | <input type="checkbox"/> Interceptor trench |
| <input type="checkbox"/> Perimeter ditch              | <input type="checkbox"/> None               |
| <input checked="" type="checkbox"/> Other (describe): |   |
- Gravity drainage to toe drain along the northern boundary of Cell 17 and Cell 16 which is pumped to the adjacent IW pond.
-

22. Leachate storage method:

☐ Tanks ☐ Surface impoundments

☐ Other (describe):

None

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23. Leachate treatment method:

☐ Oxidation ☐ Chemical treatment

☐ Secondary ☐ Settling

☐ Advanced ☐ None

☒ Other (describe):

As described in the IW permit, the leachate will be treated by dilution and evaporation.

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24. Leachate disposal method:

☐ Recirculated ☐ Pumped to WWTP

☐ Transported to WWTP ☐ Discharged to surface water/wetland

☐ Injection well ☒ Percolation ponds

☐ Evaporation ☐ Spray irrigation

☐ Other (describe):

Leachate will be disposed in a percolation pond.

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25. For leachate discharged to surface waters:

Name and Class of receiving water:

N/A

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26. Storm Water:

Collected: ☒ Yes ☐ No

Type of treatment:

100 year, 24-hour storm event retained on-site without discharge.

Name and Class of receiving water:

None

27. Environmental Resources Permit (ERP) number or status:

ERP 51-0172489-006

**PART C. PROHIBITIONS (62-701.300, FAC)**

**LOCATION**

- |                                  |  |   |
|----------------------------------|--|---|
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 1. Provide documentation that each of the siting criteria will be satisfied for the facility; (62-701.300(2), FAC)  |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 2. If the facility qualifies for any of the exemptions contained in Rules 62-701.300(12), (13) and (16) through (18), FAC, then document this qualification(s); |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 3. Provide documentation that the facility will be in compliance with the burning restrictions; (62-701.300(3), FAC)  |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 4. Provide documentation that the facility will be in compliance with the hazardous waste restrictions; (62-701.300(4), FAC)                                    |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 5. Provide documentation that the facility will be in compliance with the PCB disposal restrictions; (62-701.300(5), FAC)                                       |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 6. Provide documentation that the facility will be in compliance with the biomedical waste restrictions; (62-701.300(6), FAC)                                   |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 7. Provide documentation that the facility will be in compliance with the Class I surface water restrictions; (62-701.300(7), FAC)                              |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 8. Provide documentation that the facility will be in compliance with the special waste for landfills restrictions; (62-701.300(8), FAC)                        |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 9. Provide documentation that the facility will be in compliance with the liquid restrictions; (62-701.300(10), FAC)  |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 10. Provide documentation that the facility will be in compliance with the used oil and oily waste restrictions; (62-701.300(11), FAC)                          |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 11. Provide documentation that the facility will be in compliance with the CCA treated wood restrictions; (62-701.300(14), FAC)                                 |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 12. Provide documentation that the facility will be in compliance with the dust control restrictions; (62-701.300(15), FAC)                                     |

**PART D. SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL (62-701.320, FAC)**

**LOCATION**

- |   |  |
|---|--|
| <p>S <input checked="" type="checkbox"/> <u>Section 1</u>    N/A <input type="checkbox"/> N/C <input type="checkbox"/></p>                    | <p>1. A minimum of one completed electronic application form, all supporting data and reports; (62-701.320(5)(a), FAC)</p>   |
| <p>S <input checked="" type="checkbox"/> <u>Sections 1, 3 &amp; 4</u>    N/A <input type="checkbox"/> N/C <input type="checkbox"/></p>        | <p>2. Engineering and/or professional certification (signature, date, and seal) provided on the applications and all engineering plans, reports, and supporting information for the application; (62-701.320(6), FAC)</p>  |
| <p>S <input checked="" type="checkbox"/> <u>Cover Letter</u>    N/A <input type="checkbox"/> N/C <input type="checkbox"/></p>                 | <p>3. A letter of transmittal to the Department; (62-701.320(7)(a), FAC)</p>   |
| <p>S <input checked="" type="checkbox"/> <u>Section 1</u>    N/A <input type="checkbox"/> N/C <input type="checkbox"/></p>                    | <p>4. A completed application form dated and signed by the applicant; (62-701.320(7)(b), FAC)</p>  |
| <p>S <input checked="" type="checkbox"/> <u>Cover Letter</u>    N/A <input type="checkbox"/> N/C <input type="checkbox"/></p>                 | <p>5. Permit fee specified in Rule 62-701.315, FAC in check or money order, payable to the Department; (62-701.320(7)(c), FAC)</p>   |
| <p>S <input checked="" type="checkbox"/> <u>Section 3</u>    N/A <input type="checkbox"/> N/C <input type="checkbox"/></p>                    | <p>6. An engineering report addressing the requirements of this rule and with the following format: a cover sheet, text printed on 8 ½ inch by 11 inch consecutively numbered pages, a table of contents or index, the body of the report and all appendices including an operation plan, contingency plan, illustrative charts and graphs, records or logs of tests and investigations, engineering calculations; (62-701.320(7)(d), FAC)</p> |
| <p>S <input checked="" type="checkbox"/> <u>Sec. 3, App 3-A &amp; Sec. 7</u>    N/A <input type="checkbox"/> N/C <input type="checkbox"/></p> | <p>7. Operation Plan and Closure Plan; (62-701.320(7)(e)1, FAC)</p>  |
| <p>S <input checked="" type="checkbox"/> <u>Section 3, App 3-B</u>    N/A <input type="checkbox"/> N/C <input type="checkbox"/></p>           | <p>8. Contingency Plan; (62-701.320(7)(e)2, FAC)</p>   |
| <p>S <input checked="" type="checkbox"/> <u>Section 4</u>    N/A <input type="checkbox"/> N/C <input type="checkbox"/></p>                    | <p>9. Plans or drawings for the solid waste management facilities in appropriate format (including sheet size restrictions, cover sheet, legends, north arrow, horizontal and vertical scales, elevations referenced to NGVD 1929) showing: (62-701.320(7)(f), FAC)</p>  |
| <p>S <input type="checkbox"/> _____    N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/></p>                               | <p>a. A regional map or plan with the project location in relation to major roadways and population centers;</p>   |
| <p>S <input checked="" type="checkbox"/> <u>Section 4</u>    N/A <input type="checkbox"/> N/C <input type="checkbox"/></p>                    | <p>b. A vicinity map or aerial photograph no more than one year old showing the facility site and relevant surface features located within 1000 feet of the facility;</p>  |
| <p>S <input checked="" type="checkbox"/> <u>Section 4</u>    N/A <input type="checkbox"/> N/C <input type="checkbox"/></p>                    | <p>c. A site plan showing all property boundaries certified by a Florida Licensed Professional Surveyor and Mapper;</p>  |
| <p>S <input checked="" type="checkbox"/> <u>Section 4</u>    N/A <input type="checkbox"/> N/C <input type="checkbox"/></p>                    | <p>d. Other necessary details to support the engineering report, including referencing elevations to a consistent, nationally recognized datum, and identifying the method used for collecting latitude and longitude data;</p>  |

**LOCATION****PART D CONTINUED**S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

10. Documentation that the applicant either owns the property or has legal authority from the property owner to use the site; (62-701.320(7)(g), FAC)

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

11. For facilities owned or operated by a county, provide a description of how, if any, the facilities covered in this application will contribute to the county's achievement of the waste reduction and recycling goals contained in Section 403.706, FS; (62-701.320(7)(h), FAC)

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

12. Provide a history and description of any enforcement actions taken by the Department against the applicant for violations of applicable statutes, rules, orders, or permit conditions relating to the operation of any solid waste management facility in the state; (62-701.320(7)(i), FAC)

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

13. Proof of publication in a newspaper of general circulation of notice of application for a permit to construct or substantially modify a solid waste management facility; (62-701.320(8), FAC)

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

14. Provide a description of how the requirements for airport safety will be achieved, including proof of required notices if applicable. If exempt, explain how the exemption applies; (62-701.320(13), FAC)

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

15. Explain how the operator and spotter training requirements and special criteria will be satisfied for the facility; (62-701.320(15), FAC)

**PART E. LANDFILL PERMIT REQUIREMENTS (62-701.330, FAC)****LOCATION**S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

1. Regional map or aerial photograph no more than five years old showing all airports that are located within five miles of the proposed landfill; (62-701.330(3)(a), FAC)

S ☒ Section 4 N/A ☐ N/C ☐

2. Plot plan with a scale not greater than 200 feet to the inch showing: (62-701.330(3)(b), FAC)

S ☒ Section 4 N/A ☐ N/C ☐

a. Dimensions;

S ☒ Section 5 N/A ☐ N/C ☐

b. Locations of proposed and existing water quality monitoring wells;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

c. Locations of soil borings;

S ☒ Section 4 N/A ☐ N/C ☐

d. Proposed plan of trenching or disposal areas;

S ☒ Section 4 N/A ☐ N/C ☐

e. Cross sections showing original elevations and proposed final contours which shall be included either on the plot plan or on separate sheets;

**LOCATION****PART E CONTINUED**S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 3 N/A ☐ N/C ☐S ☒ Section 3 N/A ☐ N/C ☐S ☒ Section 3 N/A ☐ N/C ☐S ☒ Section 3 N/A ☐ N/C ☐S ☒ Section 3 N/A ☐ N/C ☐S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

f. Any previously filled waste disposal areas;

g. Fencing or other measures to restrict access;

3. Topographic maps with a scale not greater than 200 feet to the inch with five foot contour intervals showing: (62-701.330(3)(c), FAC)

a. Proposed fill areas;

b. Borrow areas;

c. Access roads;

d. Grades required for proper drainage;

e. Cross sections of lifts;

f. Special drainage devices if necessary;

g. Fencing;

h. Equipment facilities;

4. A report on the landfill describing the following: (62-701.330(3)(d), FAC)

a. The current and projected population and area to be served by the proposed site;

b. The anticipated type, annual quantity, and source of solid waste expressed in tons;

c. Planned active life of the facility, the final design height of the facility, and the maximum height of the facility during its operation;

d. The source and type of cover material used for the landfill;

5. Provide evidence that an approved laboratory shall conduct water quality monitoring for the facility in accordance with Chapter 62-160, FAC; (62-701.330(3)(g), FAC)

6. Provide a statement of how the applicant will demonstrate financial responsibility for the closing and long-term care of the landfill; (62-701.330(3)(h), FAC)



**PART F. GENERAL CRITERIA FOR LANDFILLS (62-701.340, FAC)**

**LOCATION**

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

1. Describe (and show on a Federal Insurance Administration flood map, if available) how the landfill or solid waste disposal unit shall not be located in the 100 year floodplain where it will restrict the flow of the 100 year flood, reduce the temporary water storage capacity of the floodplain unless compensating storage is provided, or result in a washout of solid waste; (62-701.340(3)(b), FAC)

S ☒ Section 4 N/A ☐ N/C ☐

2. Describe how the minimum horizontal separation between waste deposits in the landfill and the landfill property boundary shall be 100 feet, measured from the toe of the proposed final cover slope; (62-701.340(3)(c), FAC)

**PART G. LANDFILL CONSTRUCTION REQUIREMENTS (62-701.400, FAC)**

**LOCATION**

S ☒ Section 3 N/A ☐ N/C ☐

1. Describe how the landfill shall be designed so the solid waste disposal units will be constructed and closed at planned intervals throughout the design period of the landfill, and shall be designed to achieve a minimum factor of safety of 1.5 using peak strength values to prevent failures of side slopes and deep-seated failures; (62-701.400(2), FAC)

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

2. Landfill liner requirements; (62-701.400(3), FAC)

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

a. General construction requirements; (62-701.400(3)(a), FAC)

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

(1) Provide test information and documentation to ensure the liner will be constructed of materials that have appropriate physical, chemical, and mechanical properties to prevent failure;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

(2) Document foundation is adequate to prevent liner failure;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

(3) Constructed so bottom liner will not be adversely impacted by fluctuations of the ground water;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

(4) Designed to resist hydrostatic uplift if bottom liner located below seasonal high ground water table;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

(5) Installed to cover all surrounding earth which could come into contact with the waste or leachate;

**LOCATION**S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐**PART G CONTINUED**

b. Composite liners; (62-701.400(3)(b), FAC)

- (1) Upper geomembrane thickness and properties;
- (2) Design leachate head for primary leachate collection and removal system (LCRS) including leachate recirculation if appropriate;
- (3) Design thickness in accordance with Table A and number of lifts planned for lower soil component;

c. Double liners; (62-701.400(3)(c), FAC)

- (1) Upper and lower geomembrane thickness and properties;
- (2) Design leachate head for primary LCRS to limit the head to one foot above the liner;
- (3) Lower geomembrane sub-base design;
- (4) Leak detection and secondary leachate collection system minimum design criteria ( $k \geq 10$  cm/sec, head on lower liner  $\leq 1$  inch, head not to exceed thickness of drainage layer);

d. Standards for geosynthetic components; (62-701.400(3)(d), FAC)

- (1) Factory and field seam test methods to ensure all geomembrane seams achieve the minimum specifications;
- (2) Geomembranes to be used shall pass a continuous spark test by the manufacturer;
- (3) Design of 24-inch-thick protective layer above upper geomembrane liner;
- (4) Describe operational plans to protect the liner and leachate collection system when placing the first layer of waste above a 24-inch-thick protective layer;
- (5) HDPE geomembranes, if used, meet the specifications in GRI GM13, and LLDPE geomembranes, if used, meet the specifications in GRI GM17;
- (6) PVC geomembranes, if used, meet the specifications in PGI 1104;

**LOCATION**S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐**PART G CONTINUED**

- (7) Interface shear strength testing results of the actual components which will be used in the liner system;
- (8) Transmissivity testing results of geonets if they are used in the liner system;
- (9) Hydraulic conductivity testing results of geosynthetic clay liners if they are used in the liner system;
- e. Geosynthetic specification requirements; (62-701.400(3)(e), FAC)
- (1) Definition and qualifications of the designer, manufacturer, installer, QA consultant and laboratory, and QA program;
- (2) Material specifications for geomembranes, geocomposites, geotextiles, geogrids, and geonets;
- (3) Manufacturing and fabrication specifications including geomembrane raw material and roll QA, fabrication personnel qualifications, seaming equipment and procedures, overlaps, trial seams, destructive and non-destructive seam testing, seam testing location, frequency, procedure, sample size, and geomembrane repairs;
- (4) Geomembrane installation specifications including earthwork, conformance testing, geomembrane placement, installation personnel qualifications, field seaming and testing, overlapping and repairs, materials in contact with geomembranes, and procedures for lining system acceptance;
- (5) Geotextile and geogrids specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials and any overlying materials;
- (6) Geonet and geocomposites specifications including handling and placement, conformance testing, stacking and joining, repair, and placement of soil materials and any overlying materials;
- (7) Geosynthetic clay liner specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials and any overlying materials;

**LOCATION**S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☒ **Section 3** \_\_\_\_\_ N/A ☐ N/C ☐S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☒ **Section 3** \_\_\_\_\_ N/A ☐ N/C ☐S ☒ **Section 3** \_\_\_\_\_ N/A ☐ N/C ☐**PART G CONTINUED**

f. Standards for soil liner components; (62-701.400(3)(f), FAC)

- (1) Description of construction procedures including over-excavation and backfilling to preclude structural inconsistencies and procedures for placing and compacting soil components in layers;
- (2) Demonstration of compatibility of the soil component with actual or simulated leachate in accordance with EPA Test Method 9100, or an equivalent test method;
- (3) Procedures for testing in situ soils to demonstrate they meet the specifications for soil liners;
- (4) Specifications for soil component of liner including at a minimum:
  - (a) Allowable particle size distribution, and Atterberg limits including shrinkage limit;
  - (b) Placement moisture and dry density criteria;
  - (c) Maximum laboratory-determined saturated hydraulic conductivity using simulated leachate;
  - (d) Minimum thickness of soil liner;
  - (e) Lift thickness;
  - (f) Surface preparation (scarification);
  - (g) Type and percentage of clay mineral within the soil component;
- (5) Procedures for constructing and using a field test section to document the desired saturated hydraulic conductivity and thickness can be achieved in the field;

g. If a Class III landfill is to be constructed with a bottom liner system, provide a description of how the minimum requirements for the liner will be achieved;

**LOCATION****PART G CONTINUED**S ☒ **Section 3** N/A ☐ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

## 3. Leachate collection and removal system (LCRS); (62-701.400(4), FAC)

## a. The primary and secondary LCRS requirements; (62-701.400(4)(a), FAC)

- (1) Constructed of materials chemically resistant to the waste and leachate;
- (2) Have sufficient mechanical properties to prevent collapse under pressure;
- (3) Have granular material or synthetic geotextile to prevent clogging;
- (4) Have a method for testing and cleaning clogged pipes or contingent designs for reducing leachate around failed areas;

## b. Other LCRS requirements; (62-701.400(4)(b), (c) and (d), FAC)

- (1) Bottom 12 inches having hydraulic conductivity  $\geq 1 \times 10^{-3}$  cm/sec;
- (2) Total thickness of 24 inches of material chemically resistant to the waste and leachate;
- (3) Bottom slope design to accommodate for predicted settlement and still meet minimum slope requirements;
- (4) Demonstration that synthetic drainage material, if used, is equivalent or better than granular material in chemical compatibility, flow under load, and protection of geomembranes liner;
- (5) Schedule provided for routine maintenance of LCRS.

## 4. Leachate recirculation; (62-701.400(5), FAC)

## a. Describe general procedures for recirculating leachate;

## b. Describe procedures for controlling leachate runoff and minimizing mixing of leachate runoff with storm water;

## c. Describe procedures for preventing perched water conditions and gas buildup;

**LOCATION****PART G CONTINUED**S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

d. Describe alternate methods for leachate management when it cannot be recirculated due to weather or runoff conditions, surface seeps, wind-blown spray, or elevated levels of leachate head on the liner;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

e. Describe methods of gas management in accordance with Rule 62-701.530, FAC;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

f. If leachate irrigation is proposed, describe treatment methods and standards for leachate treatment prior to irrigation over final cover, and provide documentation that irrigation does not contribute significantly to leachate generation;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

5. Leachate storage tanks and leachate surface impoundments; (62-701.400(6), FAC)

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

a. Surface impoundment requirements; (62-701.400(6)(b), FAC)

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

(1) Documentation that the design of the bottom liner will not be adversely impacted by fluctuations of the ground water;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

(2) Designed in segments to allow for inspection and repair, as needed, without interruption of service;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

(3) General design requirements;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

(a) Double liner system consisting of an upper and lower 60-mil minimum thickness geomembrane;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

(b) Leak detection and collection system with hydraulic conductivity  $\geq 1$  cm/sec;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

(c) Lower geomembrane place on subbase  $\geq 6$  inches thick with  $k \leq 1 \times 10^{-5}$  cm/sec or on an approved geosynthetic clay liner with  $k \leq 1 \times 10^{-7}$  cm/sec;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

(d) Design calculation to predict potential leakage through the upper liner;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

(e) Daily inspection requirements, and notification and corrective action requirements if leakage rates exceed that predicted by design calculations;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

(4) Description of procedures to prevent uplift, if applicable;

**LOCATION**S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐**PART G CONTINUED**

(5) Design calculations to demonstrate minimum two feet of freeboard will be maintained;

(6) Procedures for controlling vectors and off-site odors;

b. Above-ground leachate storage tanks; (62-701.400(6)(c), FAC)

(1) Describe tank materials of construction and ensure foundation is sufficient to support tank;

(2) Describe procedures for cathodic protection for the tank, if needed;

(3) Describe exterior painting and interior lining of the tank to protect it from the weather and the leachate stored;

(4) Describe secondary containment design to ensure adequate capacity will be provided and compatibility of materials of construction;

(5) Describe design to remove and dispose of stormwater from the secondary containment system;

(6) Describe an overfill prevention system, such as level sensors, gauges, alarms, and shutoff controls to prevent overfilling;

(7) Inspections, corrective action, and reporting requirements;

(a) Weekly inspection of overfill prevention system;

(b) Weekly inspection of exposed tank exteriors;

(c) Inspection of tank interiors when tank is drained, or at least every three years;

(d) Procedures for immediate corrective action if failures detected;

(e) Inspection reports available for Department review;

c. Underground leachate storage tanks; (62-701.400(6)(d), FAC)

**LOCATION**S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐**PART G CONTINUED**

(1) Describe materials of construction;

(2) A double-walled tank design system to be used with the following requirements:

(a) Interstitial space monitoring at least weekly;

(b) Corrosion protection provided for primary tank interior and external surface of outer shell;

(c) Interior tank coatings compatible with stored leachate;

(d) Cathodic protection inspected weekly and repaired as needed;

(3) Describe an overfill prevention system, such as level sensors, gauges, alarms, and shutoff controls to prevent overfilling, and provide for weekly inspections;

(4) Inspection reports available for Department review;

## 6. Liner systems construction quality assurance (CQA); (62-701.400(7), FAC)

a. Provide CQA Plan including:

(1) Specifications and construction requirements for liner system;

(2) Detailed description of quality control testing procedures and frequencies;

(3) Identification of supervising professional engineer;

(4) Identify responsibility and authority of all appropriate organizations and key personnel involved in the construction project;

(5) State qualifications of CQA professional engineer and support personnel;



**LOCATION****PART G CONTINUED**S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☒ Section 3 N/A ☐ N/C ☐S ☒ Section 3 N/A ☐ N/C ☐S ☒ Section 3 N/A ☐ N/C ☐S ☒ Section 3 N/A ☐ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☒ Section 3 N/A ☐ N/C ☐S ☒ Section 3 N/A ☐ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

(6) Description of CQA reporting forms and documents;

b. An independent laboratory experienced in the testing of geosynthetics to perform required testing;

7. Soil liner CQA; (62-701.400(8), FAC)

a. Documentation that an adequate borrow source has been located with test results, or description of the field exploration and laboratory testing program to define a suitable borrow source;

b. Description of field test section construction and test methods to be implemented prior to liner installation;

c. Description of field test methods, including rejection criteria and corrective measures to insure proper liner installation;

8. For surface water management systems at aboveground disposal units, provide documentation showing the design of any features intended to convey stormwater to a permitted or exempted treatment system; (62-701.400(9), FAC)

9. Gas control systems; (62-701.400(10), FAC)

a. Provide documentation that if the landfill is receiving degradable wastes, it will have a gas control system complying with the requirements of Rule 62-701.530, FAC;

10. For landfills designed in ground water, provide documentation that the landfill will provide a degree of protection equivalent to landfills designed with bottom liners not in contact with ground water; (62-701.400(11), FAC)

**PART H. HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS (62-701.410(2), FAC)****LOCATION**S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

1. Submit a hydrogeological investigation and site report including at least the following information:

a. Regional and site specific geology and hydrology;

b. Direction and rate of ground water and surface water flow including seasonal variations;

**LOCATION**S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

2. Report signed, sealed, and dated by P.E. and/or P.G.

**PART H CONTINUED**

c. Background quality of ground water and surface water;

d. Any on-site hydraulic connections between aquifers;

e. Site stratigraphy and aquifer characteristics for confining layers, semi-confining layers, and all aquifers below the site that may be affected by the disposal facility;

f. Description of topography, soil types, and surface water drainage systems;

g. Inventory of all public and private water wells within a one mile radius of the site including, where available, well top of casing and bottom elevations, name of owner, age and usage of each well, stratigraphic unit screened, well construction technique, and static water level;

h. Identify and locate any existing contaminated areas on the site;

i. Include a map showing the locations of all potable wells within 500 feet of the waste storage and disposal areas;

**PART I. GEOTECHNICAL INVESTIGATION REQUIREMENTS (62-701.410(3) and (4), FAC)****LOCATION**S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

1. Submit a geotechnical site investigation report defining the engineering properties of the site including at least the following:

a. Description of subsurface conditions including soil stratigraphy and ground water table conditions;

b. Investigate for the presence of muck, previously filled areas, soft ground, and lineaments;

c. Estimates of average and maximum high water table across the site;

d. Evaluation of potential for fault areas and seismic impact zones;

e. Foundation analysis including:

**LOCATION****PART I CONTINUED**S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

(1) Foundation bearing capacity analysis;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

(2) Total and differential subgrade settlement analysis;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

(3) Slope stability analysis;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

f. Evaluation of potential for sinkholes and sinkhole activity at the site that is based upon the investigations required in Rule 62-701.410(3)(f), F.A.C.;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

g. A geotechnical report providing a description of methods used in the investigation, and includes soil boring logs, laboratory results, analytical calculations, cross sections, interpretations, conclusions, and a description of any engineering measures proposed for the site;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

2. Report signed, sealed, and dated by P.E. and/or P.G.

**PART J. VERTICAL EXPANSION OF LANDFILLS (62-701.430, FAC)****LOCATION**S ☒ SECTION 3 N/A ☐ N/C ☐

1. Describe how the vertical expansion shall not cause or contribute to any violations of water quality standards or criteria, shall not cause objectionable odors, or adversely affect the closure design of the existing landfill;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

2. Describe how the vertical expansion over unlined landfills will meet the requirements of Rule 62-701.400, FAC with the exceptions of Rule 62-701.430(1)(c), FAC;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

3. Provide foundation and settlement analysis for the vertical expansion;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

4. Provide total settlement calculations demonstrating that the final elevations of the lining system, gravity drainage, and no other component of the design will be adversely affected;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

5. Minimum stability factor of safety of 1.5 for the lining system component interface stability and for deep stability;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

6. Provide documentation to show the surface water management system will not be adversely affected by the vertical expansion;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

7. Provide gas control designs to prevent accumulation of gas under the new liner for the vertical expansion;

**PART K. LANDFILL OPERATION REQUIREMENTS (62-701.500, FAC)**

**LOCATION**

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

1. Provide documentation that the landfill will have at least one trained operator during operation and at least one trained spotter at each working face; (62-701.500(1), FAC)

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

2. Provide a landfill operation plan including procedures for: (62-701.500(2), FAC)

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

a. Designating responsible operating and maintenance personnel;

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

b. Emergency preparedness and response, as required in subsection 62-701.320(16), FAC;

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

c. Controlling types of waste received at the landfill;

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

d. Weighing incoming waste;

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

e. Vehicle traffic control and unloading;

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

f. Method and sequence of filling waste;

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

g. Waste compaction and application of cover;

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

h. Operations of gas, leachate, and stormwater controls;

S ☒ Section 5 N/A ☐ N/C ☐

i. Water quality monitoring;

S ☒ Section 3 N/A ☐ N/C ☐

j. Maintaining and cleaning the leachate collection system;

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

3. Provide a description of the landfill operation record to be used at the landfill, details as to location of where various operational records will be kept (i.e. DEP permit, engineering drawings, water quality records, etc.); (62-701.500(3), FAC)

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

4. Describe the waste records that will be compiled monthly and provided to the Department annually; (62-701.500(4), FAC)

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

5. Describe methods of access control; (62-701.500(5), FAC)

S ☒ Section 3, App 3-A N/A ☐ N/C ☐

6. Describe load checking program to be implemented at the landfill to discourage disposal of unauthorized waste at the landfill; (62-701.500(6), FAC)

**LOCATION****PART K CONTINUED**S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

7. Describe procedures for spreading and compacting waste at the landfill that include: (62-701.500(7), FAC)

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

a. Waste layer thickness and compaction frequencies;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

b. Special considerations for first layer of waste placed above the liner and leachate collection system;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

c. Slopes of cell working face and side grades above land surface, and planned lift depths during operation;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

d. Maximum width of working face;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

e. Description of type of initial cover to be used at the facility that controls:

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

(1) Vector breeding/animal attraction;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

(2) Fires;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

(3) Odors;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

(4) Blowing litter;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

(5) Moisture infiltration;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

f. Procedures for applying initial cover, including minimum cover frequencies;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

g. Procedures for applying intermediate cover;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

h. Time frames for applying final cover;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

i. Procedures for controlling scavenging and salvaging;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

j. Description of litter policing methods;

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

k. Erosion control procedures;

**LOCATION****PART K CONTINUED**S ☒ Section 3, App 3-A N/A ☐ N/C ☐S ☒ Section 3, App 3-A N/A ☐ N/C ☐S ☒ Section 3, App 3-A N/A ☐ N/C ☐S ☒ Section 3, App 3-A N/A ☐ N/C ☐S ☒ Section 3, App 3-A N/A ☐ N/C ☐S ☒ Section 3, App 3-A N/A ☐ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☒ Section 3, App 3-A N/A ☐ N/C ☐S ☒ Section 3, App 3-A N/A ☐ N/C ☐S ☒ Section 3, App 3-A N/A ☐ N/C ☐S ☒ Section 3, App 3-A N/A ☐ N/C ☐S ☒ Section 3, App 3-A N/A ☐ N/C ☐

8. Describe operational procedures for leachate management including: (62-701.500(8), FAC)

a. Leachate level monitoring;

b. Operation and maintenance of leachate collection and removal system, and treatment as required;

c. Procedures for managing leachate if it becomes regulated as a hazardous waste;

d. Identification of treatment or disposal facilities that may be used for off-site discharge and treatment of leachate;

e. Contingency plan for managing leachate during emergencies or equipment problems;

f. Procedures for recording quantities of leachate generated in gal/day and including this in the operating record;

g. Procedures for comparing precipitation experienced at the landfill with leachate generation rates and including this information in the operating record;

h. Procedures for water pressure cleaning or video inspecting leachate collection systems;

9. Describe how the landfill receiving degradable wastes shall implement a gas management system meeting the requirements of Rule 62-701.530, FAC; (62-701.500(9), FAC)

10. Describe procedures for operating and maintaining the landfill stormwater management system to comply with the requirements of Rule 62-701.400(9), FAC; (62-701.500(10), FAC)

11. Equipment and operation feature requirements; (62-701.500(11), FAC)

a. Sufficient equipment for excavating, spreading, compacting, and covering waste;

b. Reserve equipment or arrangements to obtain additional equipment within 24 hours of breakdown;

c. Communications equipment;

**LOCATION**

- S ☒ Section 3, App 3-A N/A ☐ N/C ☐
- S ☒ Section 3, App 3-A N/A ☐ N/C ☐
- S ☒ Section 3, App 3-A N/A ☐ N/C ☐
- S ☒ Section 3, App 3-A N/A ☐ N/C ☐
- S ☒ Section 3, App 3-A N/A ☐ N/C ☐
- S ☒ Section 3, App 3-A N/A ☐ N/C ☐
- S ☒ Section 3, App 3-A N/A ☐ N/C ☐
- S ☒ Section 3, App 3-A N/A ☐ N/C ☐
- S ☒ Section 3, App 3-A N/A ☐ N/C ☐

**PART K CONTINUED**

- d. Dust control methods;
- e. Fire protection capabilities and procedures for notifying local fire department authorities in emergencies;
- f. Litter control devices;
- g. Signs indicating operating authority, traffic flow, hours of operation, and disposal restrictions;

12. Provide a description of all-weather access road, inside perimeter road, and other on-site roads necessary for access at the landfill; (62-701.500(12), FAC)

13. Additional record keeping and reporting requirements; (62-701.500(13), FAC)

- a. Records used for developing permit applications and supplemental information maintained for the design period of the landfill;
- b. Monitoring information, calibration and maintenance records, and copies of reports required by permit maintained for at least 10 years;
- c. Maintain annual estimates of the remaining life of constructed landfills, and of other permitted areas not yet constructed, and submit this estimate annually to the Department;
- d. Procedures for archiving and retrieving records which are more than five years old;

**PART L. WATER QUALITY MONITORING REQUIREMENTS (62-701.510, FAC)****LOCATION**

- S ☒ Section 5 N/A ☐ N/C ☐
- S ☒ Section 5 N/A ☐ N/C ☐

1. A water quality monitoring plan shall be submitted describing the proposed ground water and surface water monitoring systems, and shall meet at least the following requirements:

- a. Based on the information obtained in the hydrogeological investigation and signed, dated, and sealed by the P.G. or P.E. who prepared it; (62-701.510(2)(a), FAC)

**LOCATION**

- S ☒ Section 5 N/A ☐ N/C ☐
- S ☒ Section 5 N/A ☐ N/C ☐
- S ☒ Section 5 N/A ☐ N/C ☐
- S ☒ Section 5 N/A ☐ N/C ☐
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- S ☒ Section 5 N/A ☐ N/C ☐
- S ☒ Section 5 N/A ☐ N/C ☐
- S ☒ Section 5 N/A ☐ N/C ☐
- S ☒ Section 5 N/A ☐ N/C ☐

**PART L CONTINUED**

b. All sampling and analysis performed in accordance with Chapter 62-160, FAC; (62-701.510(2)(b), FAC)

c. Ground water monitoring requirements; (62-701.510(3), FAC)

- (1) Detection wells located downgradient from and within 50 feet of disposal units;
- (2) Downgradient compliance wells as required;
- (3) Background wells screened in all aquifers below the landfill that may be affected by the landfill;
- (4) Location information for each monitoring well;
- (5) Well spacing no greater than 500 feet apart for downgradient wells and no greater than 1500 feet apart for upgradient wells, unless site specific conditions justify alternate well spacings;
- (6) Properly selected well screen locations;
- (7) Monitoring wells constructed to provide representative ground water samples;
- (8) Procedures for properly abandoning monitoring wells;
- (9) Detailed description of detection sensors, if proposed;

d. Surface water monitoring requirements; (62-701.510(4), FAC)

- (1) Location of and justification for all proposed surface water monitoring points;
- (2) Each monitoring location to be marked and its position determined by a registered Florida land surveyor;

e. Initial and routine sampling frequency and requirements; (62-701.510(5), FAC)

- (1) Initial background ground water and surface water sampling and analysis requirements;



**LOCATION****PART L CONTINUED**S ☒ Section 5 N/A ☐ N/C ☐S ☒ Section 5 N/A ☐ N/C ☐S ☒ Section 5 N/A ☐ N/C ☐S ☒ Section 5 N/A ☐ N/C ☐S ☒ Section 5 N/A ☐ N/C ☐S ☒ Section 5 N/A ☐ N/C ☐S ☒ Section 5 N/A ☐ N/C ☐

(2) Routine monitoring well sampling and analysis requirements;

(3) Routine surface water sampling and analysis requirements;

f. Describe procedures for implementing evaluation monitoring, prevention measures, and corrective action as required; (62-701.510(6), FAC)

g. Water quality monitoring report requirements; (62-701.510(8), FAC)

(1) Semi-annual report requirements; (see paragraphs 62-701.510(5)(c) and (d), FAC for sampling frequencies)

(2) Documentation that the water quality data shall be provided to the Department in an electronic format consistent with requirements for importing into Department databases, unless an alternate form of submittal is specified in the permit;

(3) Two and one-half year, or annual, report requirements, or every five years if in long-term care, signed dated, and sealed by P.G. or P.E.;

**PART M. SPECIAL WASTE HANDLING REQUIREMENTS (62-701.520, FAC)****LOCATION**S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

1. Describe procedures for managing motor vehicles; (62-701.520(1), FAC)

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

2. Describe procedures for landfilling shredded waste; (62-701.520(2), FAC)

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

3. Describe procedures for asbestos waste disposal; (62-701.520(3), FAC)

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

4. Describe procedures for disposal or management of contaminated soil; (62-701.520(4), FAC)

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

5. Describe procedures for disposal of biological wastes; (62-701.520(5), FAC)

**PART N. GAS MANAGEMENT SYSTEM REQUIREMENTS (62-701.530, FAC)**

**LOCATION**

S ☒ Section 3 N/A ☐ N/C ☐

1. Provide documentation for a gas management system that will: (62-701.530(1), FAC)

S ☒ Section 3 N/A ☐ N/C ☐

a. Be designed to prevent concentrations of combustible gases from exceeding 25% the LEL in structures and 100% the LEL at the property boundary;

S ☒ Section 3 N/A ☐ N/C ☐

b. Be designed for site specific conditions;

S ☒ Section 3 N/A ☐ N/C ☐

c. Be designed to reduce gas pressure in the interior of the landfill;

S ☒ Section 3 N/A ☐ N/C ☐

d. Be designed to not interfere with the liner, leachate control system, or final cover;

S ☒ Section 3 N/A ☐ N/C ☐

2. Provide documentation that will describe locations, construction details, and procedures for monitoring gas at ambient monitoring points and with soil monitoring probes; (62-701.530(2), FAC)

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

3. Provide documentation describing how the gas remediation plan and odor remediation plan will be implemented; (62-701.530(3), FAC)

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

4. Landfill gas recovery facilities; (62-701.530(5), FAC)

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

a. Provide information required in Rules 62-701.320(7) and 62-701.330(3), FAC;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

b. Provide information required in Rule 62-701.600(4), FAC, where relevant and practical;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

c. Provide estimates of current and expected gas generation rates and description of condensate disposal methods;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

d. Provide description of procedures for condensate sampling, analyzing, and data reporting;

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

e. Provide closure plan describing methods to control gas after recovery facility ceases operation, and any other requirements contained in Rule 62-701.400(10), FAC;

**PART O. LANDFILL FINAL CLOSURE REQUIREMENTS (62-701.600, FAC)**

**LOCATION**

S ☒ Section 7 N/A ☐ N/C ☐

S ☒ Section 7 N/A ☐ N/C ☐

S ☒ Section 7 N/A ☐ N/C ☐

S ☒ Section 7 N/A ☐ N/C ☐

S ☒ Section 7 N/A ☐ N/C ☐

S ☒ Section 7 N/A ☐ N/C ☐

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

S ☒ Section 4 N/A ☐ N/C ☐

S ☒ Section 4 N/A ☐ N/C ☐

S ☒ Section 4 N/A ☐ N/C ☐

S ☒ Section 4 N/A ☐ N/C ☐

S ☒ Section 4 N/A ☐ N/C ☐

S ☒ Section 4 N/A ☐ N/C ☐

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

S ☐ \_\_\_\_\_ N/A ☒ N/C ☐

1. Closure permit requirements; (62-701.600(2), FAC)

a. Application submitted to the Department at least 90 days prior to final receipt of wastes;

b. Closure plan shall include the following:

(1) Closure design plan;

(2) Closure operation plan;

(3) Plan for long-term care;

(4) A demonstration that proof of financial assurance for long-term care will be provided;

2. Closure design plan including the following requirements: (62-701.600(3), FAC)

a. Plan sheet showing phases of site closing;

b. Drawings showing existing topography and proposed final grades;

c. Provisions to close units when they reach approved design dimensions;

d. Final elevations before settlement;

e. Side slope design including benches, terraces, down slope drainage ways, energy dissipaters, and description of expected precipitation effects;

f. Final cover installation plans including:

(1) CQA plan for installing and testing final cover;

(2) Schedule for installing final cover after final receipt of waste;

(3) Description of drought resistant species to be used in the vegetative cover;

**LOCATION**S ☒ Section 4 N/A ☐ N/C ☐S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☐ \_\_\_\_\_ N/A ☒ N/C ☐S ☒ Section 4 N/A ☐ N/C ☐S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☒ Section 3, App 3-A N/A ☐ N/C ☐S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒S ☐ \_\_\_\_\_ N/A ☐ N/C ☒**PART O CONTINUED**

(4) Top gradient design to maximize runoff and minimize erosion;

(5) Provisions for cover material to be used for final cover maintenance;

g. Final cover design requirements;

(1) Protective soil layer design;

(2) Barrier soil layer design;

(3) Erosion control vegetation;

(4) Geomembrane barrier layer design;

(5) Geosynthetic clay liner design, if used;

(6) Stability analysis of the cover system and the disposed waste;

h. Proposed method of stormwater control;

i. Proposed method of access control;

j. Description of the proposed or existing gas management system which complies with Rule 62-701.530, FAC;

3. Closure operation plan shall include: (62-701.600(4), FAC)

a. Detailed description of actions which will be taken to close the landfill;

b. Time schedule for completion of closing and long-term care;

c. Describe proposed method for demonstrating financial assurance for long-term care;

d. Operation of the water quality monitoring plan required in Rule 62-701.510, FAC;

e. Development and implementation of gas management system required in Rule 62-701.530, FAC;

**LOCATION****PART O CONTINUED**

- S ☐ \_\_\_\_\_ N/A ☐ N/C ☒ 4. Certification of closure construction completion and final reports including: (62-701.600(6), FAC)
- S ☐ \_\_\_\_\_ N/A ☐ N/C ☒ a. Survey monuments; (62-701.600(6)(a), FAC)
- S ☐ \_\_\_\_\_ N/A ☐ N/C ☒ b. Final survey report; (62-701.600(6)(b), FAC)
- S ☐ \_\_\_\_\_ N/A ☐ N/C ☒ c. Closure construction quality assurance report; (62-701.400(7), FAC)
- S ☐ \_\_\_\_\_ N/A ☐ N/C ☒ 5. Declaration to the public; (62-701.600(7), FAC)
- S ☐ \_\_\_\_\_ N/A ☐ N/C ☒ 6. Official date of closing; (62-701.600(8), FAC)
- S ☐ \_\_\_\_\_ N/A ☐ N/C ☒ 7. Justification for and detailed description of procedures to be followed for temporary closure of the landfill, if desired; (62-701.600(9), FAC)

**PART P. OTHER CLOSURE PROCEDURES (62-701.610, FAC)****LOCATION**

- S ☐ \_\_\_\_\_ N/A ☒ N/C ☐ 1. Describe how the requirements for use of closed solid waste disposal areas will be achieved; (62-701.610(1), FAC)
- S ☐ \_\_\_\_\_ N/A ☒ N/C ☐ 2. Describe how the requirements for relocation of wastes will be achieved; (62-701.610(2), FAC)

**PART Q. LONG-TERM CARE (62-701.620, FAC)****LOCATION**

- S ☐ \_\_\_\_\_ N/A ☐ N/C ☒ 1. Maintaining the gas collection and monitoring system; (62-701.620(5), FAC)
- S ☐ \_\_\_\_\_ N/A ☐ N/C ☒ 2. Stabilization report requirements; (62-701.620(6), FAC)
- S ☐ \_\_\_\_\_ N/A ☐ N/C ☒ 3. Right of access; (62-701.620(7), FAC)
- S ☐ \_\_\_\_\_ N/A ☐ N/C ☒ 4. Requirements for replacement of monitoring devices; (62-701.620(8), FAC)
- S ☐ \_\_\_\_\_ N/A ☐ N/C ☒ 5. Completion of long-term care signed and sealed by professional engineer; (62-701.620(9), FAC)

**PART R. FINANCIAL ASSURANCE** (62-701.630, FAC)

**LOCATION**

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

1. Provide cost estimates for closing, long-term care, and corrective action costs estimated by a P.E. for a third party performing the work, on a per unit basis, with the source of estimates indicated; (62-701.630(3) & (7), FAC)

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

2. Describe procedures for providing annual cost adjustments to the Department based on inflation and changes in the closing, long-term care, and corrective action plans; (62-701.630(4) & (8), FAC)

S ☐ \_\_\_\_\_ N/A ☐ N/C ☒

3. Describe funding mechanisms for providing proof of financial assurance and include appropriate financial assurance forms. (62-701.630(5), (6), & (9), FAC)

1. Applicant:

\_\_\_\_\_ is aware that statements made in this form and attached information are an application for a minor modification permit from the Florida Department of Environmental Protection, and certifies that the information in this application is true, correct, and complete to the best of his/her knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.

E-Mail Address (if available)

Telephone Number

Date:

2. Professional Engineer registered in Florida (or Public Officer if authorized under Sections 403.707 and 403.7075, Florida Statutes):

This is to certify that the engineering features of this solid waste management facility have been designed/examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and operation of the facility.

Name and Title (please type)

74652

Florida Registration Number (please affix seal)

E-Mail Address (if available)

(352) 672-6867

Telephone Number \_\_\_\_\_

Date:

**SECTION 3**  
**ENGINEERING REPORT**



**ENTERPRISE ROAD CLASS III RECYCLING AND DISPOSAL FACILITY  
MINOR MODIFICATION PERMIT APPLICATION  
ENGINEERING REPORT**

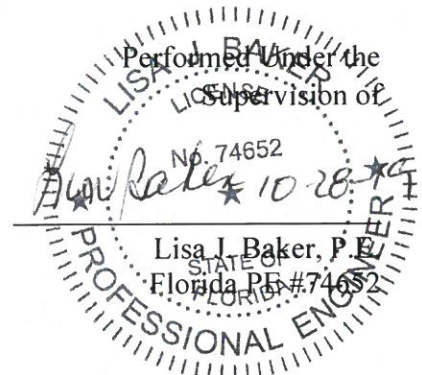
*Prepared for:*

**ANGELO'S AGGREGATE MATERIALS, LTD**  
855 28<sup>th</sup> Street South  
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*Prepared by:*

**LOCKLEAR & ASSOCIATES, INC.**  
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Gainesville, Florida 32606

JULY-OCTOBER 2019



**ENTERPRISE RECYCLING AND DISPOSAL FACILITY  
ENGINEERING REPORT  
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## APPENDICES

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APPENDIX 3-C	FIGURES
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## SECTION 3 ENGINEERING REPORT

### 3.1 GENERAL

This Engineering Report is part of a comprehensive Florida Department of Environmental Protection (FDEP or Department) permit renewal-modification application for the Enterprise Road Class III Recycling and Disposal Facility (Facility). The Engineering Report is designed to meet the requirements of Rule 62-701, F.A.C. and Pasco County's Land Development Code (LDC) and includes the following major components (and their respective location within this Engineering Report):

- Operations Plan Minor Modification Permit Plan Set, by Locklear & Associates, Inc. (Section 4);
- Figures (Appendix 3-C);
- An evaluation of the applicability of bottom liner and leachate collection system requirements (Section 2, Part G, G-1);
- Updated report evaluating geotechnical site conditions (Section 2, Part I, I-1);
- Updated Groundwater Monitoring Plan (Section 5);
- An analysis of slope stability (Section 2, Part I, I-2);
- Updated Closure and Reclamation Plan (Section 7);
- Updated financial assurance cost estimates (Section 7 Appendix 7-A);
- Updated Operations Plan (Section 3 Appendix 3-A);
- Updated Contingency Plan (Section 3 Appendix 3-B).

### 3.2 SITE LOCATION AND DESCRIPTION

The facility receives approximately 1500 tons per day of Class III waste, which includes Construction and Demolition debris, from Pasco County and other surrounding Counties (including Pinellas, Hernando, Hillsborough and Polk). The Facility was originally permitted by the Department on October 5, 2001.

The subject site is located in Sections 5 and 8, Township 25 South, Range 22 East, in Pasco County, Florida, as shown on the United States Geological Survey (USGS) quadrangle map presented in Figure 3-1 in Appendix 3-C. More specifically, the Facility is located at the northwest corner of the intersection of Enterprise Road and Auton Road, southeast of Dade City, Florida (Figure 3-1 in Appendix 3-C). The site occupies approximately 160 acres of land on the north side of Enterprise Road. The square property is approximately 2,640 feet on a side and is located in the southwest quarter of Section 5 and the northwest quarter of Section 8.

There are no airports within 5 miles of the site, see Figure S-4 (Appendix 3-C).

### 3.2.1 Prohibition Compliance

In order to comply with Rule 62-701.300, F.A.C., the Facility will abide by the following:

- The Facility will not dispose of solid waste at the proposed site until proper permitting is obtained.
- Disposal of solid waste will not occur in areas that are: unable to provide support for the waste; geological formation or subsurface features that would allow unimpeded discharge to surface water on groundwater; are within 500 feet of an existing potable water well (Figure S-1 in Appendix 3-C); are within a dewatered pit; are in a frequently flooded area; are in a body of water; are within 200 feet of a surface water body that discharges offsite (Figure S-2 in Appendix 3-C); are on a right of way; are within 1,000 feet of an existing community potable water; or are within 3,000 ft. of Class I surface waters (Figure S-3 in Appendix 3-C).
- Open burning will not occur on the site unless the burning takes place in a permitted air curtain incinerator.
- Hazardous wastes, PCB's, biohazardous wastes, special wastes, liquids, and oily wastes will not be disposed of at the Facility. Random load checks and the use of spotters at the working face will ensure that these wastes are not placed for disposal at the Facility.

### 3.3 SURROUNDING LAND USES AND ZONING

Figure 3-2 in Appendix 3-C presents an aerial photograph map depicting the surrounding land uses and designated FDOT FLUCCS codes in the site vicinity. Open land, pastureland, row crop, tree crop, and upland hardwood forest land uses surround the site. A few scattered residences also surround the site. All adjoining properties are zoned AC. Parcel 05-25-22-0000-00500-0000 to the northwest of the facility has a mining permit and is not part of the landfill operations. To the north is the East Pasco County Class I Sanitary Landfill, which is closed. To the east is an old borrow pit and agricultural land. South of the site is agricultural land and orange groves, and to the west are orange groves. Figure 3-2B in Appendix 3-C presents an aerial photograph map with future land use classifications.

Current site zoning designation, AC with a conditional use, is consistent with the Class III Landfill use. Revised Figure S-1 depicts the locations of five (5) water wells proximate to the landfill limit. The well north of future cell 17 has been abandoned. The on-site non-potable Supply Well is operated and maintained by the facility and only utilized to flush on-site toilets. The well approximately 1000' south of the southeast corner of the facility is identified as "irrigation" by

SWFWMD. The 500-foot setback from the approved landfill footprint to potable wells complies with the setback requirements of Rule 62-701.300(2)(C), F.A.C.

### 3.4 TOPOGRAPHY

The USGS 7.5 minute quadrangle map shown in Figure 3-3 in Appendix 3-C shows the land surface of the subject site has elevations ranging from 85 feet to 175 feet National Geodetic Vertical Datum (NGVD). Natural land surface generally slopes to the northeast on the northern half of the property and southeast on the southern half of the site. A 2018 site-specific topographic survey is shown on Sheets 1 and 2 of the Operations Plan Minor Modification Permit Plan Set provided in Section 4.

#### 3.4.1 100-Year Flood Prone Areas

Figure S-5 depicts a 100-year flood prone area map from the U.S. Federal Emergency Management Administration for the subject vicinity. As shown, the site is not within and would not be impacted by an estimated 100-year storm flood.

### 3.5 SOILS

According to the Soil Survey of Pasco County, Florida, published by the U.S. Department of Agriculture Soil Conservation Services (USDA-SCS), the majority of the subject site and surrounding areas are covered by fine sands. A copy of the USDA-SCS Soils Survey Map showing the mapped areas of the major soil types at the subject site and its vicinity is presented in Figure 3-5 Soil Survey Map.

USDA-SCS soil type 12- Astatula fine sands encompass a small portion in the northeast portion of the site. Astatula sands are nearly level to gently sloping, and excessively drained mainly in the sandhills. Seasonal high water table (SHWT) is typically at a depth ~~of~~ greater than 72 inches in Astatula soil. The permeability is very rapid throughout the soil. Both the available water capacity and natural fertility of the Astatula soil are low.

USDA soil type 32 - Lake fine sands comprise the majority of the soils found on the property. These soils are nearly level to gently sloping and excessively well drained. They occur along ridgetops and on low hillsides in the uplands. Permeability is rapid throughout the soil and the water table is below a depth of 120 inches. The available water capacity is very low in all layers and the natural fertility and organic matter content are both low.

USDA soil type 72 - Orlando fine sands are found in a small area in the northeast portion of the property. These soils are nearly level to gently sloping and well drained. The water table is typically at a depth greater than 72 inches with permeability of the soil rapid throughout. The available water capacity is low in the surface layer and very low in the other layers.

### 3.6 LANDFILL SITE IMPROVEMENTS

Portions of the 160-acre landfill site are also currently being operated as orange groves. The following site improvements have been installed to meet landfill operational requirements.

#### 3.6.1 Entrance Facilities

An office trailer (gatehouse) is located onsite for the gate attendant. This trailer has hand washing and toilet facilities. Potable bottled water is supplied to the trailer. Electric and telephone services are available to the trailer office. Site entrance improvements also include an all-weather entrance roadway, scales and perimeter road as shown in Operations Plan Minor Modification Permit Plan Set provided in Section 4.

#### 3.6.2 Roads

The primary haul route servicing the Facility is Enterprise Road. Enterprise Road is serviced by Clinton Avenue and C.R. 35A.

Enterprise Road has been improved to an all-weather access roadway from C.R. 35A to the entrance of the Facility. All on-site roads are maintained by the Applicant to allow for all weather access. Access roads to the working face are constructed from on-site soils and/or recovered materials such as concrete and asphalt. This is done on an as needed basis

#### 3.6.3 Effective Barrier

A 6-foot high security fence has been constructed along the south and east boundaries. The security fence consists of a 6-foot high-galvanized chain link fence, hereafter referred to as the "security fence." A five-foot wire fence runs along the north and west property boundaries. The chain link fence has been installed in accordance with the permit issued October 2001. Three (3) foot square "NO TRESPASSING" signs with 5-inch letters have been installed at no less than 500-foot spacing and at all corners to notice unauthorized access. The only point of access into the facility will be through the gate at the entrance. This gate will be locked during closed hours.

An 8-foot high landscape berm has been constructed along the site's frontage to Enterprise and Auton Roads, see Operations Plan Minor Modification Permit Plan Set provided in Section 4.

#### 3.6.4 Weighing or Measuring Incoming Waste

A scale system is used to keep records of materials received at the Facility. The scales are calibrated every six (6) months. Vehicles are weighed when they enter the Facility, and based upon the tare weight of the vehicle, the waste tonnage will be determined. Prior to unloading debris, the tonnage or volume of waste materials received will be determined and the appropriate fee assessed.

### 3.6.5 Vehicle Traffic Control and Unloading

Generally, truck traffic will be controlled on a first-in, first-out basis, as directed by the spotter at the working face. There is adequate space for truck staging at the site's entrance gate (7-8 trucks) to mitigate any queuing onto Enterprise Road. The Facility will discourage any truck staging prior to landfill opening. Signs will be posted at the entrance gate and on interior roads to guide truck traffic.

## 3.7 EXCAVATION OPERATIONS AND CELL CONSTRUCTION

On-site soils will be excavated according to the Pasco County Class I Mining Permit. The soils will be excavated and removed for various uses, including construction, roadways, and in landfilling operations. The County permit allows an excavation up to within a 200-foot setback from the property boundary and an excavation slope of 6H:1V. The Class I Mine will be "reclaimed" as a Class III landfill. The 6H:1V excavation slopes are associated with the mining of the existing soil. Once the landfill is ready to accept waste, the mine side slopes will be excavated to 2H:1V side slopes (cell slopes). Waste will be placed against this excavated slope and then built above existing grade. The Operations Plan Minor Modification Permit Plan Set (Section 4) show the phasing of the cell construction and filling operation at the Facility.

Excavation slopes will not exceed 6H:1V pursuant to the Pasco County permit; however, once an excavation phase is complete and construction commences on a new cell, the slopes will be excavated to 2H:1V. A portion of the excavated soils from the mining operation will be used as landfill construction material. Excavated soils will be reserved to provide adequate cover material for the landfill operation. Cell construction will follow the sequence described in Section 3.8.

As new cells are excavated and constructed, the cells will be over excavated to approximately three-feet below the approved excavation base grade to allow for the construction of a 3' clay layer. If limerock is encountered during construction, the following actions will be taken: **Where limerock is encountered at or below the elevation of the cell clay layer:**

- In the event that limerock is encountered during clay layer excavation or construction activities, the excavation / construction activities shall cease and the Department shall be notified by email within 24 hours of discovery.
- Excavation / construction activities related to determining location, elevation, and extent of limestone or to remediation in accordance with these procedures will resume no sooner than 24 hours after notice, unless otherwise directed by the Department
- Written notification will be submitted within 7 days of discovery.
- The written notification shall include the location, elevation, and extent of limestone noted on a plan sheet, a description of the materials encountered, and a description of the completion of excavation / clay backfill in the identified area or the anticipated



timeframe for completion of these activities.

- The limerock will be over-excavated (5-feet laterally beyond limerock boundary and 3-feet vertically below the bottom of the compacted clay layer) and the area backfilled with clay meeting the specifications in the FDEP Operation/Construction permit and Engineering Report.
- Excavation / construction activities will resume no sooner than 24 hours after notice, unless otherwise directed by the Department

**Where limerock is encountered during mining operations at elevations above the elevation of the cell clay layer and do not extend into the clay layer:**

- Document on the limerock observation log the location, elevation, and extent of limestone noted on a plan sheet, and a description of the materials encountered
- Submit limerock observation log to FDEP within 7 days of discovery
- Where limerock is encountered within 10-feet of the design elevation of the top of compacted clay layer, in addition to the procedures noted above, over excavate 1-foot vertically and laterally around the exposed limerock and backfill with compacted clay to temporarily prevent infiltration during mining operations.

If limerock encountered during mining operations at elevations above the cell clay layer extends to or below the elevation of the cell clay layer, the procedures identified above under the heading *“Where limerock is encountered at or below the elevation of the cell clay layer”* shall be followed.

Stockpiled clay, obtained from on-site excavation, will be sampled for laboratory proctor testing for use as cell floor and cell side slope material to construct a three-foot thick clay barrier layer. Material with acceptable permeability and proctor test results will be placed onto the constructed cell floor in lifts, and compacted by multiple passes with a 40,000 lb., D-6 Dozer, or equivalent.

A three-foot thick clay layer will also be placed on the 2H:1V side slopes of the exterior excavation side slopes of each cell to complete the continuous clay barrier layer. Due to the steepness of the slope, clay placement and compaction will require an iterative process consisting of several horizontal lifts, stepped up progressively until the base elevation of the landfill is reached. In order to achieve the required compaction and hydraulic conductivity, as well as to achieve a constant three feet of clay along the slope, each lift along the cell wall will need to exceed three feet wide and be wide enough for the compacting equipment. Soil in excess of three feet wide on the slopes may be removed after compaction and compliance testing have been approved. Acceptable test results means the results of the laboratory proctor and permeability tests indicate that the permeability of the material meets the requirements of the construction permit ( $1 \times 10^{-8}$  cm/s), and the optimum moisture content is not too high for the equipment to manage. Soil liner construction quality assurance shall be in compliance with 62-701.400(8). Optimum moisture content for the on-site stockpiles has been approximately 13 to 20 percent.

The dozer will compact the material in the bottom of the excavation and up the side slopes into

the dozer track marks. After each lift is compacted with the dozer, a 12-ton, 84-inch vibratory sheeps-foot roller, or equivalent, will be used to roll the material. The daily activities will be recorded, including any tie-in locations, thickness of each compacted lift, verification of the compaction and moisture content testing, verification of equipment used for compaction, and verification of dozer tracks at the tie-in surfaces (no smooth surfaces). Field logs and photographs documenting the field work will be provided to the Department. A topographic survey will confirm the top of excavation and top of clay grades.

Excavation will be such that 2H:1V slopes will only be encountered on the outer edge boundaries of each cell. A 3H:1V working face slope, beginning at the 2H:1V slope face, will be used for landfilling the waste.

Leachate generated from all cells currently flows to a toe drain extending east to west along the northern perimeter of Cell 16. Leachate generated will flow north to the proposed toe drain extension. The existing toe drain will be extended along the northern perimeter to the northwest corner of Cell 17. The toe drain flows west to east and terminates in a manhole located between Cell 16 and Pond 3. The toe drain will “daylight” approximately 3 feet above the bottom of the manhole. A dedicated pump with float control system will be used to transfer leachate from the manhole to Pond 3 as needed.

### 3.8 METHOD OF CELL SEQUENCE

Angelo’s Aggregate Materials is currently (as of January 2019) filling in Cells 1 – 7, 15 and 16 of the Class III Landfill. The cell construction and filling sequence operations will be as follows:

Phasing Sequence 1	As shown in Operations Plan Minor Modification Permit Plan Set Continue filling Cells 1-7, 15 and 16 in 10 – 12-foot lifts to waste elevation of 172’ Maximum slope is 3H:1V from base grade to waste elevation 167’; 1% to 2% grade from waste elevation 167’ to 172’ Sideslope berms and stormwater appurtenances are to be constructed at final closure. Construct Cell 17 in accordance with permitted design.
Phasing Sequence 2	As shown in Operations Plan Minor Modification Permit Plan Set Continue filling Cells 1-7, 15 and 16 in 10 – 12-foot lifts to waste elevation of 172’ Begin filling Cell 17 with 4 – 6 feet lift north of the temporary stormwater and leachate diversion swale until cell is floored out. Remove temporary swale and fill with 4 – 6 feet lift. Continue filling Cell 17 in 10 – 12 feet lifts from base grade to waste

elevation 147'. Maximum slope is 3H:1V from base grade to waste elevation 147'.

A 10-ft wide stormwater bench is to be constructed at elevation 137'.

Sideslope berms and stormwater appurtenances are to be constructed at final closure.

#### Phasing Sequence 3

As shown in Operations Plan Minor Modification Permit Plan Set Construct overall landfill vertical expansion to include maximum sideslope of 3H:1V from base grade to waste elevation 137', 187' and 212'; 1% to 2% grade from waste elevation ~~217'~~ 212' to 217'

10-ft wide stormwater benches to be constructed at waste elevations 137' and 187'.

#### Phasing Sequence 4

As shown in Operations Plan Minor Modification Permit Plan Set Construct final closure cover system over Cells 1, 2, 3, 4, 5, 6, 6B, 7, 15, 16 and 17 in accordance with the revised overall landfill vertical expansion closure design.

Construct sideslope berms (2% min. to 4% max.) and stormwater appurtenances.

Construct landfill gas vents.

Lift height includes cover material. Due to the landfill bottom elevation, some lifts may not be a full 10 feet in height.

As each sequence is active, the following procedures will be followed.

- The access road to the working face will be constructed and graded as necessary.
- Waste will be compacted as it is placed. General lift height will be 10 feet and will come within three (3) feet of the final elevation to provide for final cover.
- The working face will remain approximately 100 feet in length.
- Avoid channelizing stormwater flows
- Use mulch, grass, and maintain intermediate covers
- Weekly cover of six (6) inches of soil will be placed on the working face.
- Intermediate cover of 12 inches of soil will be placed in areas that will not receive waste within 180 days. The cover may be removed immediately prior to placement of new waste.

### 3.8.1 Vertical Expansion / Conceptual Closure

The landfill is permitted to be completed to a maximum height of 220 feet, NGVD. The final grading plan is shown on Drawing C2.00 of the Operations Plan Minor Modification Permit Plan Set provided in Section 4. The Conceptual Closure Plan includes permitted Cells 1-7 and 15, 16 and 17.

The Conceptual Closure Plan includes construction of berms on the stormwater benches that will direct stormwater to drop inlets and downcomer pipes spaced approximately every 400 – 500 feet along the benches. The downcomer pipes will discharge through an energy dissipater to the existing stormwater system. The facility's overall stormwater management system is governed by the mining operations and ERP Permits. Grades and elevation vary based on ongoing mining operations and topography. A detailed design that will tie the conceptual closure plan into the facility's stormwater management system will be submitted at the time of closure.

The top (~~12%~~ min. to 24% max. grade) and side slope (~~4H:1V and~~ 3H:1V) designs provide for proper drainage and minimize rainfall infiltration into the landfill surface.

### 3.8.2 Erosion Control

The following engineering controls will be used to minimize erosion at the working face:

- Regrade a maximum of 100 linear feet of the outer edge slopes at a time to 2H:1V. The purpose of this recommendation is that a relatively small area will be subjected to surface erosion at any given time.
- Construct a berm along the top of the slope during the regrading to redirect any rainfall runoff away from the face of the slope. The area along the berm should be graded so as to allow rapid runoff along the top of the slope. Ponding of water near the top of the slope should not be allowed, since seepage through the slope may initiate slope erosion.
- ~~• As soon as possible following the construction of the clay layer, begin to fill against the Cell 7 2H:1V slope with the landfill material.~~
- Avoid channelizing stormwater flows
- Vegetative cover will be placed on top of the intermediate cover for erosion control purposes. All or part of the intermediate cover may be removed before placing additional waste or installing final cover.

### 3.8.3 Life Expectancy

The cell capacity and lifespan estimates for Cells 1 – 7, 15, 16 and 17 and vertical expansion have been estimated using the October 2018 topographic survey performed by Pickett and Associates (Sheets 1 and 2 of Section 4 in the Operations Plan Minor Modification Plan Set); and recent and projected tonnages.

Using the October 2018 topographic survey as a base, a three-dimensional AutoCAD model of Cells 1 – 7, 15, 16 and 17 with vertical expansion at closure was generated, using the following assumptions:

- For all cells except Cell 16 and Cell 17, 3H:1V side slopes from base grade to waste elevation 122'; 4H:1V from waste elevation 122' to 167'; 1% to 2% grade from waste elevation 167' to 172'
- For Cell 16 and Cell 17, 3H:1V from base grade to waste elevation 122'; 4H:1V from waste elevation 122' to 147'.
- 10-foot inset for benches at waste elevations 122-ft and 147-ft NGVD
- 36 inches of cover over the 67.0 acre 2D surface was subtracted from the maximum volume

The airspace volume remaining as of October ~~2018-2019~~ was calculated to be approximately ~~259,312~~6,536,314 yd<sup>3</sup> after accounting for the final cover volume of 322,829 yd<sup>3</sup>.

The following design parameters were used to compute landfill design life remaining:

- **Density:** An in-place density of 1,350 lb/yd<sup>3</sup> (0.675 tons/ yd<sup>3</sup>) was used for the design life estimate and is a typical density for Class III waste.
- **Waste acceptance rate:** a waste acceptance rate of 1500 tons per day was used based on facility records.

The remaining life in Cells 1 – 7, 15, 16 and 17 and vertical expansion was calculated to be ~~11~~10 years from the survey date, or 2029.

### 3.9 WASTE COMPACTION AND APPLICATION OF COVER

Waste received will be segregated based on compactability. Bulky, incompressible items, such as concrete, asphalt, and tree debris, will be separated and stockpiled for future processing. Tree debris may be separated from the waste and periodically mulched on-site. The remaining debris is disposed of in designated cells using onsite equipment to place the debris and a Caterpillar 826 Compactor, or equivalent, to weekly compact the waste. Initial cover material is planned to be excavated from onsite areas and placed weekly in approximately 6-inch layers on the compacted lifts to control vectors, reduce rain infiltration and provide a more stable working face area. An intermediate cover of one (1) foot of compacted soil will be applied if final cover or an additional lift is not to be applied within 180 days of cell completion. Cell closure will occur when all

permitted cells are filled. For final buildout grade and closure detail, see Operations Plan Minor Modification Permit Plan Set provided in Section 4, respectively. The Conceptual Closure Plan includes permitted Cells 1-7, 15, 16, 17 and vertical expansion. Fill grades shall be such that final cover elevations are not exceeded on all slopes.

Final cover consisting of 18 inches of compacted soil barrier layer and 18 inches of soil that will sustain vegetative growth, as specified in the Closure and Reclamation Plan provided in Section 7. Cell closure shall generally conform to the lines and maximum grades specified on the Plan Set (Operations Plan Minor Modification Permit Plan Set provided in Section 4 and the requirements of Rule 62-701.600 F.A.C., Rule 62-701.400 (7), F.A.C., and Rule 62-701.400(8), F.A.C.). Pesticides when deemed necessary to control rodents, insects and other vectors shall be used as specified by the Florida Department of Agriculture and Consumer Services. Uncontrolled and unauthorized scavenging shall not be permitted at the landfill site. Controlled recycling may be permitted by the Landfill Manager. Temporary storage of soil fill or recycling materials may occur within the inactive, or closed cell areas.

### 3.10 DESIGN OF GAS, LEACHATE AND STORMWATER CONTROLS

#### 3.10.1 Gas Monitoring and Control

The type of materials to be disposed of in the Class III Landfill are not expected to generate significant amounts of methane or other gases since the landfill's design prevents groundwater contact. Therefore, no active gas control systems or venting is proposed. However, because some biodegradable waste may be accepted, a passive gas control system is proposed, see Section 3.10.1.5. The Landfill Manager will conduct daily and weekly inspections of the landfill and will check for objectionable odors or gas around the perimeter of the site. The Manager will notify the FDEP of any exceedances and immediately take corrective actions. Corrective actions will include placement of additional cover material or mulch, or lime containing materials such as crushed concrete that is documented to abate the odors. Quarterly gas point monitoring is currently conducted. The facility only accepts Class III debris for disposal and accepts no putrescible household wastes. Surface water and groundwater contact with the Class III wastes will be prevented by the approved facility design. Other best management practices to prevent odors include: 1) closure of each cell as it is completed; 2) weekly soil cover application; and, 3) immediate corrective actions to abate any detected onsite odors.

##### 3.10.1.1 Gas Probe Locations

Gas monitoring points are spaced approximately 600 linear feet apart surrounding the landfill. Operations Plan Minor Modification Permit Plan Set provided in Section 4 presents these locations of the gas probes surrounding the landfill. Gas Probes (GP) ~~6-4~~ through 15 are existing, GP 1 through ~~5-3~~ and 16 are proposed and will be installed as part of future cell construction completion ~~or~~ certification at closure. The remaining gas probes are to be installed in accordance with the following schedule in Table 3.10:

Table 3.10 Gas Probe Installation Schedule	
Gas Probe	Cell Construction Completion
GP-1	Future Cell 10 or closure
GP-2	Future Cell 11 or closure
GP-3	Future Cell 12 or closure
GP-16	Future Cell 9 or closure

~~One remaining gas probe on the eastern portion of the property is currently located immediately adjacent to the disposal area rather than at the property boundary as required by Rule. Probes GP-6, 7, 8, 11, 12 and 13 were abandoned and replaced with GP-6R, 7R, 8R, 11R, 12R and 13R along the property boundary in 2013 and 2017.~~

### 3.10.1.2 Gas Probe Design

Figure 3-14 presents the gas probe design for the subject landfill site. These gas probes are designed to be surface sealed and to provide a greater permeability than the surrounding sediments to act as collector points for any methane gas, if present. Based on the landfill design, all of the gas probes are designed to be approximately 20-foot in depth with an 18-foot open screen for the monitoring point, or to depth of adjacent waste. These depths will allow the screened interval to intercept the full cross-section of the landfilled waste that could potentially generate methane.

The groundwater table may be encountered at depths of approximately 50-foot, or more below land surface (bls) across most of the site. Accordingly, gas probes are not designed to intercept the groundwater table. The gas probes are constructed of Schedule-40 polyvinyl chloride plastic pipe (PVC). The PVC casing and screen will be flush-threaded and have a screen slot size large enough to accommodate easy methane extraction from the monitoring point. The sand/bentonite slurry proposed for a surface seal will be a blend of 4 parts of sand to one part of granular bentonite. The sand and the bentonite will be mixed dry and hydrated immediately prior to placing it in the annular space of the borehole. The gas probe points are proposed to be installed by hollow-stem auger to construct an eight-inch borehole to be filled with pea gravel. The pea gravel will meet the requirements of FDOT standard size No. 10 aggregate washed pea gravel. Each gas probe will be protected by a surface mounted well protector and locked for security purposes. Each gas probe will terminate at the surface with a PVC ball valve to accommodate easy monitoring of methane levels, with a portable meter. The ball valve will remain closed between monitoring events and pre-purge measurements will be recorded. In the event of a positive gas measurement, the post-purge measurement will also be recorded.

### 3.10.1.3 Methane Gas Measurement

In accordance with the requirements of the current FDEP permits, methane gas levels are monitored at each of the active gas monitoring points quarterly, with results submitted to the FDEP. A lower explosive limit (LEL) meter will be used to measure methane levels from each



of the gas probes. LEL meters, such as the MSA Model 260 or GEM 500 or equivalent, will be used to conduct this monitoring. These meters are capable of measuring percent volume of methane in air and the percent LEL level of the methane by volume. The meter will be calibrated in accordance with manufacturer's specifications prior to each methane monitoring event. Attachment 4 of the Operations Plan provided in Appendix 3-A presents the proposed gas monitoring probe survey form to be used to conduct the quarterly monitoring at the subject site. This form will document at the time of each gas probe reading, air temperature in degrees Fahrenheit, methane levels in percent volume in air and percent LEL. The reporting action level for methane in air will be considered 5 percent by volume in air as measured by the lower explosive limit. The reporting action limit for methane in structures is 25% of the LEL, or 1.25% methane by volume. The results of each quarterly gas probe survey will be submitted to the Department on the presented form within two weeks of each monitoring event. These events are planned to be coordinated with the semi-annual groundwater monitoring at the subject site.

#### 3.10.1.4 Gas Contingency Plan

The following Contingency Plan will be implemented if any of the measured gas monitoring points methane levels are detected above the 100% LEL of greater than 5 percent methane in air, or if 25% of the LEL or higher is measured in a structure. If this level of methane or greater is detected in any of the probes, the Facility operator will institute measurement of methane in nearby, at, or below grade structures, i.e., stormwater collection points, or any maintenance or office buildings within 100 feet of the subject gas probe on a weekly basis until these levels go below the 100% LEL at the subject probe. If methane levels measured in any on-site building exceed 25% of the LEL, building windows and/or doors will be opened for ventilation and all personnel evacuated until methane readings are maintained below 25% of the LEL for methane. The monitoring report for any event that detects methane above the LEL will also report methane levels from nearby structures, as indicated above, until the levels go below the methane LEL level or until corrective actions are conducted to reduce methane levels. The FDEP will be notified within seven days of any gas monitoring levels that exceed the reporting action levels.

#### 3.10.1.5 Passive Gas Vents

Within 90 days of closure of each landfill cell, a passive landfill gas vent will be installed at the highest point of the cell to prevent explosions, fires and damages to vegetation from methane gas buildup. Sheet C3.00 in Section 4 shows the location of the 12 gas vents and Figure 3-16 presents the design of a typical vent. The facility's gas emissions are expected to be far below the threshold of a Title V or an NSPS permit.

#### 3.10.2 Leachate Control

Any leachate that may be produced at the landfill will be controlled with the use of a continuous 3-foot thick clay layer ( $1 \times 10^{-8}$  cm/s) on the bottom of the cells. The clay layer beneath each individual cell forms a continuous barrier layer that is graded to direct leachate to the toe drain



extending east to west along the northern perimeter of Cell 16 and Cell 17. The toe drain slopes from west to east and terminates in a manhole between Cell 16 and Pond 3. The toe drain “daylights” approximately 3 feet above the bottom of the manhole. A dedicated pump with float control system is used to transfer leachate from the manhole to Pond 3 as needed. Leachate that is discovered to be hazardous, will be managed as hazardous waste.

The controlled method of screening waste also supplements the leachate control. Because the Applicant privately owns the Enterprise Class III Landfill facility, most of the haulers, waste generators, and sources of waste are known to Angelo’s and the scale house attendants. For those haulers that are unfamiliar to the Applicant, the scale house attendants question the haulers more intensely to determine the contents of their loads. The spotters and operators add additional monitoring at the active disposal location. The addition of video surveillance to the monitoring process of incoming wastes helps to identify fires or smoking loads. Combined methods of screening waste is an effective method to reduce any possible threat to public health or the environment.

### 3.10.3 Stormwater Controls

The approved Stormwater Management Plan for the landfill consists of berms, swales, and ponds constructed within the 200-foot landscape buffer zone to divert, collect and contain stormwater runoff from the completed site. These stormwater facilities are designated to retain the 100-year, 24-hour storm volume as required by Pasco County and the FDEP. During excavation, construction and waste disposal a 6-foot berm adjacent to active and filled cells retains stormwater from the filling area and diverts stormwater from the excavation area and pumped to stormwater Pond 3. The remaining portion of the temporary stormwater pond will be filled as part of the construction of Cell 17. Pond 3 has been permitted through the Industrial Wastewater division of FDEP. Additional details concerning the stormwater management system are provided in Drawing Sheet C3.00.

## 3.11 EROSION CONTROL

The perimeter swales and ponds surrounding the landfill prevent stormwater from leaving the property. The series of berms described in Section 3.10.3 above will help prevent erosion.

Additionally, landfill side slopes will be constructed at 3H:1V from base grade to elevation 220’ 212’ NGVD and will receive intermediate cover to be maintained until final landfill closure that will occur when all existing and proposed cells are filled. See the Reclamation and Closure Plan provided in Section 7 for further details.

## 3.12 FINAL GRADE PLAN

The filling sequence of the landfill is shown on Sheets C1.00 through C3.10 of the Operations Plan Minor Modification Permit Plan Set provided in Section 4. The excavated areas will be

certified to the approved bottom grades prior to accepting any waste material. The finished elevation after all fill material has been placed and final cover provided is designed to reclaim excavated areas.

### 3.13 SETBACKS AND VISUAL BUFFERS

The following setbacks (buffers) shall be used:

1. Minimum of 200 feet from the property boundary to landfill footprint.
2. Minimum of 500 feet setback from surrounding potable residential wells to landfill footprint.

Buffer areas maintain visual screening of the landfill by the following methods.

1. 8-foot high berms along the frontage of Enterprise and Auton roads.
2. Landscaping and trees to provide visual buffers within setback areas
3. Existing trees within the setbacks will be maintained.

### 3.14 FOUNDATION ANALYSIS

A Geotechnical analysis was conducted on the landfill site to evaluate if the base and geologic setting are capable of providing structural support. Universal Engineering Sciences, Inc. completed the Geotechnical Report revised December 12, 2018. Slope stability and settlement analysis provided in Section 2, Appendix I-2 was completed by Civil Design Services, Inc. and revised December 21, 2018. These revisions included the Cell 17 and Cells 1-7, 15 and 16 vertical expansion. The report concludes that the landfill base will adequately support the Class III landfill wastes without excessive settlement. It also states that the potential for sinkhole development on the site is low. In the event a sinkhole is discovered on-site, or within 500-feet of the site, the Department will be notified within 24 hours. A reclamation plan of action will be submitted to the Department within seven days.

### 3.15 CERTIFICATION

Laboratory testing and observation of cell floor conditions during cell construction completion shall consist of the following:

- In-place density testing for each 12-inch thick soil lift, based on laboratory proctor test results for the construction material, will be recorded by a properly trained technician. These are to be conducted at the location of each permeability test.

- Thickness testing of each lift will be recorded at a minimum frequency of two tests per acre, per lift.
- Confirmation hydraulic conductivity testing of Shelby tube or drive cylinder samples of the compacted cell floor material will be performed at a minimum frequency of one test per lift, per acre.
- Observance for unstable areas such as limestone, sink holes and soft ground will be performed for each cell.

If the test data from a cell floor section does not meet the requirements of the anticipated conditions of the hydrogeological and geotechnical reports and the requirements of the facility construction permit, additional random samples may be tested from that cell section. If the additional testing demonstrates that the hydraulic conductivity meets the requirements, the cell will be considered acceptable. If not, that cell will be reworked or reconstructed so that it will meet these requirements. Field test methods, including rejection criteria and corrective measures, shall coincide with 62-701.400(8).

Upon completion of construction of any cell within the disposal facility, the certification of construction completion will be provided to the FDEP on form 62-701.900(2), F.A.C. The applicant will provide the completed form to the FDEP, along with the quality assurance test results described above, and arrange for an inspection prior to acceptance of Class III wastes into the constructed disposal area.

### 3.16 OPERATIONS PLAN

The Landfill's Operations Plan is included as Appendix 3-A.

### 3.17 CONTINGENCY PLAN

The Landfill's Contingency Plan is included as Appendix 3-B.

**ENGINEERING REPORT**  
**APPENDIX 3-A**  
**OPERATIONS PLAN**

**ENTERPRISE ROAD CLASS III RECYCLING AND DISPOSAL FACILITY  
MINOR MODIFICATION PERMIT APPLICATION  
LANDFILL OPERATIONS PLAN**

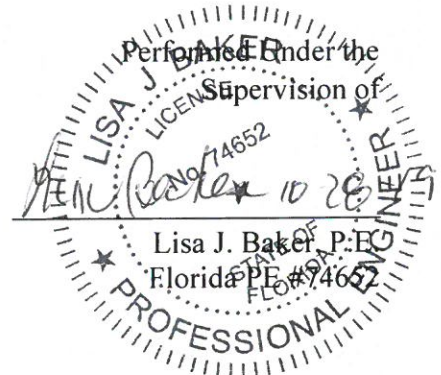
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~~JULY~~ OCTOBER 2019



**ENTERPRISE RECYCLING AND DISPOSAL FACILITY  
OPERATIONS PLAN  
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## ATTACHMENTS

ATTACHMENT 1	FACILITY ENTRANCE SIGN
ATTACHMENT 2	RANDOM LOAD INSPECTION FORM
ATTACHMENT 3	FACILITY TRAINING LOG
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ATTACHMENT 5	LIST OF APPROVED COURSES
ATTACHMENT 6	TRAINING CERTIFICATES
ATTACHMENT 7	SOURCE-SEPARATED ORGANICS PROCESSING FACILITY REGISTRATION



## 1.0 DESIGNATION OF RESPONSIBLE PERSON(S) AND REFERENCES

Mr. John Arnold, P.E. is designated by Angelo's Aggregate Materials, LTD. (Applicant) as the individual responsible for operation and maintenance of the Enterprise Road Class III Recycling and Disposal Facility (Facility) in accordance with Rule 62-701.500, F.A.C. All correspondence and inquiries concerning the Facility permits and operation should be addressed to him at:

Mr. John Arnold, P.E.  
Angelo's Aggregate Materials, LTD.  
855 28<sup>th</sup> Street South  
St. Petersburg, Florida 33712  
Telephone: (813) 477-1719

Updated plan sheets ~~and figures~~ are provided in Sections ~~3 and 4~~. Section 3 figures were unchanged and therefore are referenced and not provided as part of this application.

## 2.0 LANDFILL SITE IMPROVEMENTS

The 160 acre landfill site is also permitted by Pasco County to be a Class I mine (Pasco County Petition #CU04-26, approved 9/23/2004). The following site improvements have been installed to continue operation of the Class III Landfill.

### 2.1 Facilities

An office trailer (gate house) is located onsite for the gate attendant. This trailer has hand washing and toilet facilities. Bottled potable water is used to provide drinking water for the trailer. Electric and telephone services are available to the trailer office. Site entrance improvements also include an all-weather entrance roadway, scales and perimeter road as shown on the Operations Plan Minor Modification Plan Set provided in Section 4.

### 2.2 Primary Haul Routes

The primary haul routes used to reach the Facility are U.S. 301, S.R. 52, C.R. 35A, U.S. 98, and Clinton Avenue. These routes lead to Enterprise Road, which is used to access the facility.

Enterprise Road was improved by the Applicant to an all-weather, paved access roadway from C.R. 35A to Auton Road. Enterprise Road is a Pasco county owned roadway that is maintained by the county. The Facility has an all-weather, paved access roadway that will be maintained by the Applicant to provide adequate access at all times.

### 2.3 Effective Barrier

The existing Facility property previously had a five-foot high wire fence along the perimeter of the site. A 6-foot security fence has been constructed along the south and east boundaries. The security fence consists of a 6-foot high galvanized chain link fence, hereafter referred to as the “security fence.” The five-foot wire fence still exists along the north and west property boundaries. The chain link fence has been installed in accordance with permit issuance in October, 2001. Three (3) foot square “NO TRESPASSING” signs with five-inch letters has been installed at no less than 500-foot spacing and at all corners to notice unauthorized access. The only point of access into the landfill site will be through the ticket gate at the entrance. This gate will be locked during closed hours.

An 8-foot high landscape berm has been constructed along the frontages of Enterprise and Auton roads as a visual and noise buffer.

### 3.0 OPERATING HOURS

The landfill will have the following operating hours:

Day	Hours of Operation
Monday through Friday	7:00 am to <del>6</del> 5:00 pm
Saturday	7:00 am to <del>1</del> 2:00 pm

Operational hours may be extended periodically to meet special requests of customers, but at no time will normal operating hours extend beyond 7:00 A.M. to 7:00 P.M. Monday through Saturday. Waste will not be accepted during non-daylight hours.

### 4.0 CONTINGENCY OPERATIONS

If a natural disaster occurs at the facility rendering it unusable, the waste accepted at the Facility would be rerouted to another permitted landfill. If a storm occurs within the surrounding community, storm debris waste will also be accepted at the facility, providing additional staff if required. In terms of equipment breakdown, there will be two operating pieces of equipment for all stages of landfill operation. Currently, Angelo's has on-site two compactors [Cat 826 (2)], two loaders (Cat 950, Cat 980), two dozers (Cat D5, Cat D8), four excavators [John Deere 450 (2), Komatsu PC1100, Komatsu PC300], and two articulated dump trucks (Volvo). If both should breakdown, replacements can be rented or substituted from onsite or offsite within 24 hours.

The site access roads will be constructed to allow passage of vehicles under all expected weather conditions. See Appendix 3-B of the Engineering Report for the Contingency Plan.

### 5.0 WASTE STREAM QUALITY CONTROL PLAN

## 5.1 Visual Inspection

An estimated 1500 tons of Class III waste material is currently received at the facility daily. Materials brought onto the Enterprise Road Class III RDF site will be inspected three times. The first inspection takes place at the site entrance. The site will only accept Class III debris (which includes construction and demolition debris by definition); therefore, any vehicles hauling unacceptable waste can be turned away by the attendant at the ticket gate. The gate attendant will question all waste carriers as to the character and origination of their wastes. A mirror is installed overhead and angled to allow gate inspection of all loads after they are untarped. A video camera has been installed over the scale location that allows the gate attendant to visually screen all carrier loads prior to disposal, mainly to identify fire or smoking loads. For loads that are not accepted, a Rejected Load Form will be completed.

The second inspection is a visual inspection that will occur at the working face by a certified, trained spotter. The spotter stationed at the working face will be responsible for spotting trucks bringing in disposal loads. The spotter will show the drivers where to unload, and will also inspect the trucks to make sure unacceptable materials are not unloaded. The spotter will have the authority to ensure that unacceptable materials are reloaded on the truck the material was brought in on.

The third inspection will occur as the waste is spread by the equipment operator. Any unacceptable wastes observed will be placed in the appropriate container located at the working face. The equipment operator may also serve as the spotter and will perform both visual inspections - as the waste is unloaded and as the waste is spread.

The facility will deploy and use spotters based on the volume of waste disposed at the working face. No more than two loads will be allowed to dump simultaneously per spotter at the working face.

## 5.2 Documentation of Waste Received

Documentation includes recording the name of the company disposing of the waste, driver's signature/information, all vehicle identification numbers, quantity of waste (tons), and type of waste (to meet FDEP and Pasco County's requirements). All vehicles entering the landfill will be weighed. The type of material and location from which the waste was generated will be recorded. This provides a record for tracing ownership of individual loads. See Landfill Operating Records, Section 19.2 for more details.

## 5.3 Contingency for Unacceptable Materials

If unacceptable waste materials are delivered to the landfill, the truck will be refused entry after inspection at the gate. If the unacceptable waste materials are observed by a spotter while unloading, they will be reloaded onto the delivery vehicle. Should the vehicle leave before the unacceptable waste has been discovered, Enterprise Road Class III RDF personnel will place the

unacceptable material into an appropriate container located at the working face. A maximum of 20 cubic yards of covered dumpster storage for Class I waste will be provided near the active face of the landfill, as shown on the Operations Plan Minor Modification Permit Plan Set provided in Section 4. These containers are transported by Central Carting Disposal (or other qualified vendor) to a disposal facility permitted to accept Class I material. The covered storage containers will control vectors and odors and Class I waste will be removed within 30 days of discovery. If the storage containers cannot be secured to control vectors and odors, the putrescible waste will be stored no longer than 48-hours.

Unacceptable nonputrescible, non-hazardous wastes, such as batteries, paint, chemicals or similar items that are inadvertently accepted will be removed when observed and stored in a roll-off container or pile at the working face and removed daily to a lockable storage unit. A maximum of 40 cubic yards of stored unacceptable, nonputrescible, non-hazardous wastes may be provided near the active face of the landfill, as shown on the Operations Plan Minor Modification Permit Plan Set provided in Section 4. These materials will be removed from the site at least every 30 days (sooner if required) by a qualified vendor and taken to their facility for processing and proper disposal. Class I material is removed by Republic Services; Fluorescent bulbs and other related hazardous materials are removed by US Ecology. This plan should meet the inspection needs for the site to prevent disposal of unacceptable wastes.

If suspect regulated hazardous wastes are identified by operators or spotters by random load inspection or discovered deposited at the landfill, the FDEP will be notified promptly, as well as the hauler and generator of the wastes, if known. The area where the hazardous wastes are stored will immediately be secured from public access. If the generator or hauler cannot be identified, Enterprise Road Class III RDF will assume the cleanup, transportation and disposal of the waste at a permitted hazardous waste management facility.

#### 5.4 Acceptable and Unacceptable Class III Landfill Waste Materials

The Enterprise Road Class III RDF will accept only those solid wastes as defined in Rule 62-701.200 (14), F.A.C. as Class III wastes, except as allowed otherwise by permit.

Acceptable Class III waste materials include the following:

- Land clearing debris
- Demolition debris
- Glass
- Carpet
- Cardboard
- Asbestos
- Plastic
- Construction debris
- Non-Treated Wood Pallets
- Unpainted, painted and untreated wood scraps from manufacturing
- Waste Tires (Processed)\*
- Paper
- Furniture other than appliances
- Yard trash

- Automobiles and parts without visible contamination from petroleum products or other chemicals
- \* Processed waste tires are acceptable for disposal in the Class III Landfill provided that they have been cut into sufficiently small parts. The processed waste tire parts may be disposed of or used as initial cover at a permitted landfill. For use as initial cover, a sufficiently small part means that 70 percent of the waste tire material is cut into pieces of 4 square inches or less and 100 percent of the waste tire material is 32 square inches or less. For purposes of disposal, a sufficiently small part means that the tire has been cut into at least eight substantially equal pieces. Any processed tire which is disposed of in a landfill and which does not meet the size requirement above must receive initial cover, as defined in subsection 62-701.200(53), F.A.C., once every week.

The following is a compilation of unacceptable Class III waste materials:

- |  |  |
|--|--|
| • Putrescible Household Waste  | • Refrigerators, freezers, air conditioners (white goods)                                |
| • Paint (liquid)   | • Biomedical waste   |
| • Any toxic or hazardous Materials (i.e., batteries, solvents, oils, etc.) | • Automobiles or parts that are contaminated with petroleum products or other chemicals. |
| • Contaminated soils   | • Septic tanks and pumping   |
| • Electronics  | • Whole waste tires (except at the waste tire processing facility)                       |
|  | • CCA Treated wood   |

The site has a visible sign at the site entrance on Enterprise Road as provided in Attachment 1. The sign identifies the accepted wastes, hours of operation, landfill classification, and site's 24-hour emergency contact and telephone number. Industrial or excavated waste will be considered for acceptance on a case by case basis, only with prior consent of the Department.

## 5.5 Random Load Inspection

In accordance with Rule 62-701.500(6) a., F.A.C., the owner or operator will implement a load-checking program to detect and discourage attempts to dispose of unauthorized wastes at the landfill. The load checking program will consist of the following minimum requirements:

1. The landfill operator will examine at least three random loads of solid waste delivered to the landfill per week. The waste collection vehicle drivers selected by the inspector will be directed to discharge their loads at a designated location in the landfill. A detailed inspection of the discharged material will be made for any unauthorized wastes. The landfill operator will assure the random inspections will be distributed between both loads

originating from the transfer facility and other private waste haulers delivering waste to the landfill.

2. If unauthorized wastes are found, the facility will contact the generator, hauler, or other party responsible for shipping the waste to the landfill to determine the identity of the waste sources.

The following procedures will be followed when inspecting the load:

- A. The load will be "broken apart" by both the spotter and equipment operator to allow for a thorough inspection.
- B. The inspectors will be searching and removing de minimis amounts of unauthorized waste contained in the load.
- C. If the load contains more than de minimis amounts of unauthorized materials, they will immediately be reloaded onto the customer's vehicle for removal from the site. In the event that the transporter will not remove the unacceptable materials, the materials will be loaded into an appropriate container and removed from the site. The customer/generator will be contacted and notified of the site policies as well as charged for the off-site disposal services.
- D. In all cases, if more than minimal unacceptable wastes are found during the inspection, the customer will be notified to assure the prevention of future occurrences.

All inspection will be documented on the site's "Random Load Inspection Form," signed by the inspector, and kept in a current Log Book, see Attachment 2. Log books will be maintained at the landfill for at least 3 years. Inspections will be performed by trained site personnel.

## 5.6 Asbestos Waste Disposal

Asbestos-containing materials (ACM's) will be accepted for disposal in accordance with 40 CFR Part 61.154. Arrangements for disposal of ACM's between the Facility and the waste generator/hauler will be recorded in the operations record as to the quantity and date of shipment to the landfill. The loads are accepted at pre-arranged times during operational hours.

To ensure that all waste deposited at the Facility meets state and local requirements, all facility personnel will receive training from their supervisor on the identification of unacceptable materials, which is any waste other than properly labeled and bagged ACM. Unregulated, non-friable asbestos containing materials are not required to be bagged, but all other requirements are unchanged.

Each load of ACM arriving at the facility must be accompanied by a completed Waste Shipment Record (WSR) in accordance with 40 CFR 61.150. Each load will be inspected to insure that it is properly bagged, that bags are intact and properly sealed, and that the required warning labels and generator labels are affixed. Bags will not be opened prior to disposal.

ACM arriving at the Facility for disposal will be visually screened by facility personnel a minimum of two times. The first screening will be at the scales, controlling access to the Facility, where the truck drivers will be questioned as to the contents of the load and the shipping documents will be reviewed. The gate attendant will direct the drivers to the appropriate disposal area.

The second screening will be at the working face where a trained inspector/spotter will again question the driver and make a visual examination of the load prior to dumping and as it is dumped. This examination will insure the ACM is properly bagged, the bags are intact and properly sealed, and that the warning labels and generator labels are affixed.

Facility personnel will direct the waste hauler to the designated ACM disposal location in each cell, to be determined by the Operator. The ACM will be covered with 6-inches of soil at the end of any day that ACM is accepted. This designated ACM location will be recorded and updated by the annual topographic survey in accordance with 40 CFR 61.154. ACM disposal records will be maintained for the life of the landfill and disposal locations documented in the Closure Report.

#### 5.7 Incidental Recycling Operations

The Class III landfill does have a separate, dedicated materials recycling area. However, if recyclable wastes are incidentally received, such as metals, concrete rubble, asphalt, and wood wastes, the facility will separate them in stockpiles or in roll-off containers. Concrete and asphalt will be periodically transported to an appropriate location for crushing. Yard and wood wastes may be chipped for use onsite or be placed in roll-off containers for shipment to a wood recycler. These materials will be removed from the site approximately every 6 months. However, if the storage capacity is exceeded, the materials will be removed sooner. Incidental recyclable materials that are identified at the disposal area will be placed in containers located near the working face, as follows and as shown on the Operations Plan Minor Modification Permit Plan Set provided in Section 4.

TYPE	MAX. QTY	STORAGE
Ferrous Metal	500 CY	Roll-off or pile
Aluminum	300 CY	Roll-off or pile
Stainless Steel	300 CY	Roll-off or pile
Copper	25 CY	Trash pail, roll-off or pile
Asphalt	300 CY	Roll-off or pile
Concrete / Rubble	300 CY	Roll-off or pile
Recyclable electronics	8 CY	Covered dumpster



Trucks identified at the entrance as carrying primarily recyclable products, (i.e., concrete, metal, wood, paper) will be refused entrance into the landfill.

#### 5.7.1 Reports

A Recovered Materials report will be submitted by type of waste recovered and tonnage to the FDEP and Pasco County Solid Waste Department. These reports will also be compiled into an annual report to the FDEP.

#### 5.8 Wood Acceptance Area

The facility is a registered Source-Separated Organics Processing Facility and in compliance with the requirements specified in Rule 62-709.320 and Rule 62-709.330. Initial inspection will be performed at the scalehouse by the attendant. Wood wastes are stockpiled until processing takes place every 180 days. Personnel trained to identify and remove any unacceptable wastes will be present during processing. Unacceptable wastes, if found, will be removed prior to wood processing.

#### 5.9 CCA Treated Wood Management Plan

The following serves as the CCA-treated wood management plan required by 62-701.730(20), F.A.C. Employees will be trained in the proper management of CCA-treated wood. CCA-treated (chromate-copper arsenate) wood must be stored in the temporary storage container for waste destined to go to a lined facility. CCA-treated wood is not allowed to be disposed of in the Enterprise Class III Recycling and Disposal Facility.

The following is strictly prohibited:

- Disposal of CCA-treated wood in any unlined landfill or disposal facility
- Burning of CCA-treated wood in an open burn or an air curtain incinerator
- Mulching of CCA-treated wood or use of CCA-treated wood in other soil amendment products

There are several ways for employees to identify CCA-treated wood: 1) determining the place of origin, 2) identification by shape – typically large, dimensioned pieces of wood and 3) identification by color. CCA-treated wood has been used in a variety of applications including fencing, docks, outdoor decks and stairs, playground equipment and landscaping. The wood is typically large – dimensioned 4-inches or larger.

The most common method for visually identifying treated wood among lumber, timber and plywood is to look at the color of the wood. Untreated wood and borate-treated wood typically have a light yellow color. Wood treated with copper varies in color from a very light green to an intense green color depending on the degree of treatment. A higher degree of treatment is typical for marine applications and for structure with a high load-bearing support. Once the wood treated



with copper has been in-service and has weathered, the green color is generally converted to a silver color. It still may be difficult to visually distinguish weathered treated wood from weathered untreated wood.

Employees are cautioned against handling CCA-treated wood. Workers handling wood preserved with CCA should be sure to wash their hands before eating or smoking. CCA-treated wood splinters in the hands and fingers of workers are reported to be very problematic and should be removed as soon as possible. It is important to make sure that the entire splinter is removed. Removal may require medical attention.

The most efficient way to minimize CCA-treated wood disposal in the facility is to communicate with landfill customers. Dedicated, separate suitable temporary container for CCA-treated wood at demolition and construction job sites can be used. At the scale house, personnel will question transporters on the type of wood and direct customers to dispose CCA-treated wood at a Class I landfill. Personnel will also perform a visual inspection at the scale house if necessary especially for loads originating from the construction and demolition of fences and decks.

The facility shall incorporate CCA-treated wood into its spot-checking program. Spotters visually inspect and determine if any dimensioned wood is in the load, such as railroad ties and fence posts or building materials. If CCA-treated wood is found, the load will be diverted to a Class I landfill for disposal. Tipped loads will be spread and inspected for the presence of CCA-treated wood. CCA-treated wood will be adequately protected from rain to prevent leaching of contaminants.

## 6.0 WEIGHING OR MEASURING INCOMING WASTE

A scale system is used to weigh incoming waste. The scales will be calibrated every six (6) months. Vehicles will be weighed when they enter the disposal site, and based upon the tare weight of the vehicle, the waste tonnage will be determined. Prior to unloading debris, the tonnage or volume of the waste material disposed will be determined and the appropriate fee assessed. Weigh tickets will be kept on-site for a minimum of 5 years.

### 6.1 Fee Schedule

The fee schedule for disposal varies depending on the client, type of waste and volume received.

Waste Type	Unit	Fee per Unit
Class III	CY	Variable

This fee schedule will be periodically revised according to the prevailing market for waste disposal. The Operator will notify clients immediately in writing of all fee schedule changes.

## 7.0 VEHICLE TRAFFIC CONTROL AND UNLOADING

Generally, truck traffic will be controlled by first-in, first-out, as directed by the spotter located at the working. There will be adequate space for truck staging at the site's entrance (7-8 trucks) to mitigate any queuing onto Enterprise Road. Enterprise Road Class III RDF will discourage any truck staging prior to landfill opening. Signs will be posted at the entrance gate and on interior roads to guide mining truck traffic vs. landfill truck traffic to their appropriate areas of the site.

## 8.0 METHOD OF CELL SEQUENCE AND LIFE EXPECTANCY

### 8.1 Cell Sequence

Angelo's Aggregate Materials is currently (as of January 2019) filling in Cells 1 – 7, 15 and 16 of the Class III Landfill. The cell construction and filling sequence operations will be as follows:

Phasing Sequence 1	<p>As shown in Operations Plan Minor Modification Permit Plan Set Continue filling Cells 1-7, 15 and 16 in 10 – 12-foot lifts to waste elevation of 172'</p> <p>Maximum slope is 3H:1V from base grade to waste elevation 167'; 1% to 2% grade from waste elevation 167' to 172'</p> <p>Sideslope berms and stormwater appurtenances are to be constructed at final closure.</p> <p>Construct Cell 17 in accordance with permitted design.</p>
Phasing Sequence 2	<p>As shown in Operations Plan Minor Modification Permit Plan Set Continue filling Cells 1-7, 15 and 16 in 10 – 12-foot lifts to waste elevation of 172'</p> <p>Begin filling Cell 17 with 4 – 6 feet lift north of the temporary stormwater and leachate diversion swale until cell is floored out. Remove temporary swale and fill with 4 – 6 feet lift.</p> <p>Continue filling Cell 17 in 10 – 12 feet lifts from base grade to waste elevation 147'. Maximum slope is 3H:1V from base grade to waste elevation 147'.</p> <p>A 10-ft wide stormwater bench is to be constructed at elevation 137'.</p> <p>Sideslope berms and stormwater appurtenances are to be constructed at final closure.</p>
Phasing Sequence 3	<p>As shown in Operations Plan Minor Modification Permit Plan Set Construct overall landfill vertical expansion to include maximum sideslope of 3H:1V from base grade to waste elevation 137', 187' and 212'; 1% to 2% grade from waste elevation 212' to 217'</p> <p>10-ft wide stormwater benches to be constructed at waste elevations 137' and 187'.</p>

#### Phasing Sequence 4

As shown in Operations Plan Minor Modification Permit Plan Set Construct final closure cover system over Cells 1, 2, 3, 4, 5, 6, 6B, 7, 15, 16 and 17 in accordance with the revised overall landfill vertical expansion closure design.

Construct sideslope berms (2% min. to 4% max.) and stormwater appurtenances.

Construct landfill gas vents.

Lift height includes cover material. Due to the landfill bottom elevation, some lifts may not be a full 10 feet in height.

As each sequence is active, the following procedures will be followed

- The access road to the working face will be constructed and graded as necessary
- Waste will be compacted as it is placed. General lift height will be 10 feet and will come within three (3) feet of the final elevation to provide for final cover.
- The working face will remain approximately 100 feet in length
- Avoid channelizing stormwater flows
- Use mulch, grass, and maintain intermediate covers
- Weekly cover of six (6) inches of soil will be placed on the working face
- Intermediate cover of 12 inches of soil will be placed in areas that will not receive waste within 180 days. The cover may be removed immediately prior to placement of new waste
- During excavation, construction and waste disposal a 6-foot berm adjacent to active and filled cells retains stormwater from the filling area and diverts stormwater from the excavation area and pumped to stormwater Pond 3. The remaining portion of the temporary stormwater pond will be filled as the construction of Cell 17 is completed.

#### 8.2 Erosion Control

The following engineering controls will be used to minimize erosion at the working face:

- Regrade a maximum of 100 linear feet of the outer edge slopes at a time to 2H:1V. The purpose of this recommendation is that a relatively small area will be subjected to surface erosion at any given time.
- Construct a berm along the top of the slope during the regrading to redirect any rainfall runoff

away from the face of the slope. The area along the berm should be graded so as to allow rapid runoff along the top of the slope. Ponding of water near the top of the slope should not be allowed, since seepage through the slope may initiate slope erosion.

- ~~As soon as possible following the construction of the clay layer, begin to fill against the 2H:1V slope with the landfill material.~~

- Avoid channelizing stormwater flows

Vegetative cover will be placed on top of the intermediate cover for erosion control purposes. All or part of the intermediate cover may be removed before placing additional waste or installing final cover

### 8.3 Life Expectancy.

The capacity and lifespan estimates are provided in Section 3.8.3 of the Engineering Report.

## 9.0 WASTE COMPACTION AND APPLICATION OF COVER

Waste received will be segregated based on compatibility. Bulky, incompressible items, such as concrete and tree debris, will be separated and stockpiled for future processing. Tree debris is separated from the waste and periodically mulched for on-site uses. The remaining debris is disposed of in designated "cells" using a CAT 826G Compactor, or equivalent to place, spread the waste daily and compact the debris weekly. Initial cover material is planned to be excavated from onsite areas and placed weekly in approximately 6-inch layers on the compacted lifts to control vectors, reduce rain infiltration and provide a more stable working face area. The facility may also use a 50/50 mixture of mulch and soil as cover in accordance with Policy Memo # SWM-05.4 dated April 25, 2001. An intermediate cover of one (1) foot of compacted soil will be applied if final cover or an additional lift is not to be applied within 180 days of cell completion. Cell closure will occur when all permitted cells are filled. For final buildout grade and closure details, see Operations Plan Minor Modification Plan Set provided in Section 4. The Conceptual Closure Plan includes permitted Cells 1-7 and 15, 16, and Cell 17 and vertical expansion.

Cell closure will generally conform to the lines and grades specified in the Landfill Conceptual Closure Plan. The grading plan will conform to the rules and regulation specified in 62-701.600, as well as 62-701.400(7) and 62-701.400(8), Florida Administrative Code. Pesticides when deemed necessary to control rodents, insects and other vectors will be used as specified by the Florida Department of Agriculture and Consumer Services. Uncontrolled and unauthorized scavenging will not be permitted at the landfill site. Controlled recycling may be permitted by the Site Manager responsible for the operation of the landfill facility. Temporary storage of soil fill or recycling materials may occur in the closed cell areas.

## 10.0 OPERATION OF GAS, LEACHATE AND STORMWATER CONTROLS

### 10.1 Gas Monitoring and Control

The type of materials to be disposed in the Class III Landfill are not expected to generate significant amounts of methane or other toxic gases since the landfill's design prevents groundwater contact therefore, a passive gas control system is proposed. The Landfill Manager will conduct daily and weekly inspections of the landfill and will check for objectionable odors or gas by driving around the perimeter of the site, record the results, and notify the FDEP and County of any positive detection and immediately take corrective actions. Corrective actions will include placement of additional soil cover, or mulch, or lime containing materials such as crushed concrete that is documented to abate the odors. Quarterly gas monitoring is currently conducted.

Within 30 days of being notified by the Department that objectionable odors per Rule 62-701.200(77), F.A.C. have been confirmed off-site, the Facility will submit to the Department for approval an odor remediation plan. The plan will describe the nature and extent of the problem and the proposed long-term solution, which will be implemented within 30 days of approval. The plan will include procedures to implement a routine odor monitoring program to determine the timing and extent of objectionable odors and a means of evaluating the effectiveness of the remedy.

The facility only accepts Class III debris for disposal and accepts no putrescible household wastes. Surface water and groundwater contact with the Class III wastes will be prevented by the approved facility design thus preventing possible odor operation. Other best management practices to prevent odors include: 1) closure of each cell as it is completed; 2) weekly soil cover application; and, 3) immediate corrective actions to abate odors.

A system of passive gas vents will be installed to manage landfill gas. The location of the gas vents is shown on the Operations Plan Minor Modification Permit Plan Set provided in Section 4. The construction details of the vents are shown on Figure 3-16, Appendix 3-C of the Engineering Report. The vents will be installed during the final closure and installation of the final cover over each landfill cell.

A system of 16 gas monitoring points will be installed to monitor gas at the site, see Operations Plan Minor Modification Plan Set provided in Section 4. The construction details of a typical gas probe are shown on Figure 3-14, Appendix 3-C of the Engineering Report.

#### 10.1.1 Methane Gas Measurement

In accordance with the requirements of the current FDEP permits, methane gas levels are monitored at each of the active gas monitoring points quarterly, with results submitted to the

FDEP. A lower explosive limit (LEL) meter will be used to measure methane levels from each of the gas probes. LEL meters, such as the MSA Model 260 or GEM 500 or equivalent, will be used to conduct this monitoring. These meters are capable of measuring percent volume of methane in air and the percent LEL level of the methane by volume. The meter shall be calibrated in accordance with manufacturer's specifications prior to each methane monitoring event. Attachment 4 of the Operations Plan provided in Appendix 3A of the Engineering Report presents the proposed gas monitoring probe survey form to be used to conduct the quarterly monitoring at the subject site. This form will document at the time of each gas probe reading, air temperature in degrees Fahrenheit, methane levels in percent volume in air and percent LEL. The reporting action level for methane in air will be considered 5 percent by volume in air as measured by the lower explosive limit. The reporting action limit for methane in structures is 25% of the LEL, or 1.25% methane by volume. The results of each quarterly gas probe survey will be submitted to the Department on the presented form within two weeks of each monitoring event. These events are planned to be coordinated with the semi-annual groundwater monitoring at the subject site.

#### 10.1.2 Gas Contingency Plan

The following Contingency Plan will be implemented if any of the measured gas monitoring points methane levels are detected above the 100% LEL of greater than 5 percent methane in air, or if 25% of the LEL or higher is measured in a structure. If this level of methane or greater is detected in any of the probes, the Facility operator will institute measurement of methane in nearby, at, or below grade structures, i.e., stormwater collection points, or any maintenance or office buildings within 100 feet of the subject gas probe on a weekly basis until these levels go below the 100% LEL at the subject probe. If methane levels measured in any on-site building exceed 25% of the LEL, building windows and/or doors will be opened for ventilation and all personnel evacuated until methane readings are maintained below 25% of the LEL for methane. The monitoring report for any event that detects methane above the LEL will also report methane levels from nearby structures, as indicated above, until the levels go below the methane LEL level or until corrective actions are conducted to reduce methane levels. The FDEP will be notified within seven days of any gas monitoring levels that exceed the reporting action levels.

#### 10.2 Leachate Control

Any leachate that may be produced at the landfill will be controlled with the use of a continuous 3-foot thick clay layer ( $1 \times 10^{-8}$  cm/s) on the bottom of the cells. The clay layer beneath each individual cell forms a continuous barrier layer that is graded to direct leachate to the toe drain extending east to west along the northern perimeter of Cell 16 and Cell 17. The toe drain slopes from west to east and terminate in a manhole between Cell 16 and Pond 3. The toe drain "daylights" approximately 3 feet above the bottom of the manhole. A dedicated pump with float control system is used to transfer leachate from the manhole to Pond 3 as needed. Leachate that is discovered to be hazardous, will be managed as hazardous waste.

As described above, the leachate collection system is designed, constructed, and maintained to prevent clogging of the system. In the unlikely event the IW pond becomes unable to accept leachate, an alternate disposal facility is available for transport and disposal of the leachate.

In accordance with Rule 62-701.500(8)(h), F.A.C., a video inspection or high-pressure water cleaning of the leachate and detection system collection pipes, laterals and headers for the landfill will be performed every 5 years as part of the permit renewal process.

The controlled method of screening waste also supplements the leachate control. Because the Applicant privately owns the Enterprise Class III Landfill facility, most of the haulers, waste generators, and sources of waste are known to Angelo's and the scale house attendants. For those haulers that are unfamiliar to the Applicant, the scale house attendants question the haulers more intensely to determine the contents of their loads. The spotters and operators add additional monitoring at the active disposal location. The addition of video surveillance to the monitoring process of incoming wastes helps to identify fires or smoking loads. Combined methods of screening waste is an effective method to reduce any possible threat to public health or the environment.

### 10.3 Stormwater Control

The approved Stormwater Management Plan for the landfill consists of berms, swales, and ponds constructed within the 200-foot landscape buffer zone to divert, collect and contain stormwater runoff from the completed site. These stormwater facilities are designated to retain the 100-year, 24-hour storm volume as required by Pasco County and the FDEP. During excavation, construction and waste disposal a 6-foot berm adjacent to active and filled cells retains stormwater from the filling area and diverts stormwater from the excavation area and pumped to stormwater Pond 3. The remaining portion of the temporary stormwater pond will be filled as the construction of Cell 17 is completed. Pond 3 has been permitted through the Industrial Wastewater division of FDEP. Additional details concerning the stormwater management system are provided in Drawing Sheet C3.00.

The site manager will perform weekly inspections of the storm water management system. Any areas in need of maintenance will be repaired within seven days.

### 11.0 SIGNS

Signs will be posted at the entrance to the Facility site which will list the following information:

- The operating entity;
- Hours of operation;
- No scavenging allowed;
- No hazardous waste accepted;
- List of acceptable and unacceptable waste; and,



24-hour phone number of emergency contact.

The scalehouse attendant will direct each driver to the area appropriate to unload wastes. Signs will also be posted to direct trucks to either the borrow pit or the landfill working face.

## 12.0 DUST ABATEMENT PLAN

The Facility will provide a water tanker to water the landfill access roads if and when dust becomes a problem. This will also be done whenever the County receives complaints about dust or when a dust problem is observed during a County or State inspection.

## 13.0 DUST, LITTER, AND VECTOR CONTROL PLAN

The nature of the waste to be disposed in the landfill does not typically create litter and vector problems. Daily placement of waste and/or compaction will be the primary means utilized to control litter and vectors. The facility personnel will perform daily inspections of the facility and the access road to assure litter is controlled. As needed, laborers will pick up blowing debris and dispose of it in appropriate containers and/or on site. Temporary fencing to contain litter at the working face of the landfill may be used as needed. These litter controls will also be implemented whenever the County or State receives a complaint from adjacent landowners or a litter problem is observed during an inspection.

If vectors (rodents, insects, and domestic animals) become a nuisance at the Facility, the Operator may obtain the services of a licensed pest management company to review the operations and recommend control measures.

## 14.0 FIRE PROTECTION AND FIRE FIGHTING FACILITIES

Fires that originate in landfills are primarily extinguished by soil application. Supplemental fire protection will be furnished by the Dade City Fire Department (Station No. 1). The Fire Department will be notified immediately of all landfill fires. An emergency contact list will be posted at the scalehouse with contact phone numbers.

During a fire, incoming trucks will be directed toward another area of the landfill so that a temporary active face can be established. Once the fire is extinguished, appropriate cover will be applied to the waste and operations will continue at the original active face. If the fire is extensive and a temporary active face cannot be established, incoming trucks will be redirected to another landfill.

Onsite fire prevention facilities will include:

- Fire extinguishers mounted in the cab of all heavy equipment and in the office/ scalehouse;



- Telephones to notify personnel of a fire;
- Onsite equipment (dozer) and fill dirt to extinguish fires on working face; and
- Site water truck

Soil for firefighting purposes will be borrowed from the closest unexcavated area of the site to the fire. Details of all firefighting episodes will be recorded in the landfill operating record.

#### 14.1 Hot Loads and Spills

Any hot load (of authorized material) found will be dumped on an area at least 500 feet away from the active working face. The load will immediately be covered with soil if a fire is imminent. Once the fire is extinguished, the load will be pushed and spread using a dozer, allowing for the load to be inspected by a spotter. The waste will not be disposed of until it has cooled completely, and the fire hazard has been mitigated.

In the event of a fire at the working face, waste acceptance will cease until the fire has been completely extinguished and additional cover material compacted in the area of the fire. If the fire is located elsewhere in the landfill, waste acceptance operations may continue at the manager's discretion.

Since liquid disposal is prohibited in a Class III landfill, spills from waste vehicles are not anticipated. In the case of a fuel spill or leak, the contaminated soil will be collected to the extent possible, contained in a drum or roll off container, and taken offsite within thirty (30) days for proper disposal or treatment.

#### 15.0 LANDFILL PERSONNEL

The scalehouse attendant and certified landfill operator will be onsite during all operating hours. In addition, there will be a minimum of one (1) other person (spotter) onsite, for a total of three (3). The state certified landfill operator will be assigned to manage the daily landfill operations. The personnel will be stationed at the landfill ticket gate and active disposal face. Additional personnel will be assigned to the landfill operation as the demand necessitates. Two spotters are generally located at the working face at all times that waste is accepted. However, there are up to eight spotter-trained or in-house trained spotter employees on-site each day and therefore; additional trained employees can be relocated to the working face as necessary to inspect the incoming waste. Certificates for current trained personnel are attached as Attachment 6 to this plan.

At least one (1) spotter will be at the working face at all times the facility is accepting waste. The spotter will direct vehicle traffic around the working face and will direct drivers where to empty their vehicles. The loads will be inspected as described in Section 5.0. If the load is acceptable, the

waste will be spread and compacted as necessary. If the load is unacceptable, the spotter will direct the driver to reload the waste into the vehicle, if possible. If the driver is unable to reload the material, on-site personnel will reload the material for the driver using onsite equipment. The spotter will also discourage scavenging by the public.

The equipment operator spreading waste at the working face may also act as a spotter in accordance with the following:

1. The heavy equipment operator must be trained as a spotter;
2. When unauthorized waste is discovered, the heavy equipment operator must either move the unauthorized waste away from the active area for later removal and proper management, or must stop operation and notify another person on the ground or on other equipment who will come to the active area and remove the unauthorized waste before operations are resumed;
3. Each load of waste must be visually inspected for unauthorized waste prior to being compacted or loaded into a transfer vehicle.

A typical work schedule is as follows:

Day	Operating Hours	Scalehouse Attendant	Certified Operator	Spotter(s)	Equipment Operator*
M-F	7 am – <del>6</del> <u>5</u> pm	1 (7 am – <del>6</del> <u>5</u> pm)	1 (7 am – <del>6</del> <u>5</u> pm)	Min. 1 (7 am – <del>6</del> <u>5</u> pm) For 2 or more (7 am – 4 pm), (12 pm – <del>6</del> <u>5</u> pm)	Min. 1 (7 am – <del>6</del> <u>5</u> pm)
S	7 am – <u>12</u> pm	1 (7 am – <del>3</del> <u>pm1</u> pm)	1 (7 am – <del>3</del> <u>1</u> pm)		Min. 1 (7 am – <del>2</del> <u>12</u> pm)

\* - Equipment Operator may also serve as a spotter

### 15.1 Training Plan

The Facility will implement an employee training plan to properly train their landfill operators and spotters to operate the landfill in accordance with this Operations Plan, state and local regulations, and accepted disposal practices and to properly manage any hazardous or prohibited materials which are received at the landfill.

A trained operator will be at the site during all times that the landfill receives waste. All facility operators will be trained at an approved FDEP training course. Each operator will submit proof of training and documentation to the FDEP upon receipt of their certificates.

Landfill operators must have at least one year of work experience in landfill operation and a high school diploma; or have at least two (2) years' experience at a Class I, II, or III landfill. Each operator will complete at least 24 hours of initial training in an FDEP-approved training course,

and will pass an examination as part of that training. Sixteen (16) hours of continuing training will be completed within three (3) years of each operator's initial training from an approved course documented by the form in Attachment 3. A list of FDEP approved training courses for operators and spotters are included in Attachment 5.

The Facility spotters will complete an initial eight (8) hour FDEP-approved course and four (4) hours of continuing training every three (3) years. Records documenting each employee's training course completion and schedule will be maintained and kept at the landfill office at all times.

Interim operators must become trained operators within one year of employment as an interim operator and interim spotters must become trained spotters within 3 months of employment as an interim spotter.

## 16.0 COMMUNICATIONS FACILITIES

The landfill scalehouse will have both telephone and facsimile facilities. In addition, all landfill operating areas (gate house, working face etc.) will have radio communication or cell phones with the base station at the gate house.

## 17.0 EQUIPMENT INVENTORY

Equipment currently planned for use at the landfill site includes:

- A. Two compactors [Cat 826 (2)], two loaders (Cat 950, Cat 980), two dozers (Cat D5, Cat D8), four excavators [John Deere 450 (2), Komatsu PC1100, Komatsu PC300], and two articulated dump trucks (Volvo)D-8 Caterpillar bulldozer, CAT 826 G Compactor; two 2.5 eud loaders, water truck, 590 John Deer backhoe, or equivalent are sufficient for adequate operation of the facility. A wood chipper/grinding machine (Hogzilla), or equivalent, will be moved to the site periodically (approximately once every six months) to process wood wastes as needed. Additional equipment, such as a grader or water truck may be rented as needed.
- B. Arrangements will be made to provide alternate equipment within 24 hours following an equipment breakdown.

Equipment rental companies that may be used to obtain reserve equipment include the following:

Ring Power - Brooksville, Florida  
Contact: 352-796-4978

Flagler Equipment - Tampa, Florida  
Contact: 813-630-0077

- C. There will be safety devices present on equipment to shield and protect the operators from potential hazards during operation.

#### 17.1 Equipment Maintenance

The Facility will conduct routine heavy equipment and vehicle maintenance onsite. Maintenance includes fueling of heavy equipment with diesel fuel, lubrication, oil changes and, antifreeze changes. Tire repairs will be handled by an outside service company.

A permanent equipment fueling facility will be installed and registered in accordance with F.A.C. 62-761. Pasco County will be copied on the registration.

Oil and antifreeze changes will be contained by large drip pans to catch the waste oils. These wastes will then be transferred either to a 250-gallon waste oil skid tank or to a 55-gallon drum for waste antifreeze, which will be located in a containment area. The containment area is a covered metal storage shed. Enterprise RDF plans to enter into contracts with licensed recyclers to periodically pick up the waste oil and antifreeze. Records of these pickups will be maintained by Enterprise RDF. All virgin lubricants will be stored undercover within the gate house building or suitable enclosure.

#### 18.0 SAFETY DEVICES

All operating equipment which will be utilized at the landfill site will be fitted with rollover protection and fire extinguishers. All landfill personnel will be required to wear safety helmets, safety shoes, eye protective glasses, gloves, and safety vests. The onsite heavy equipment will meet OSHA safety requirements. First aid equipment will be kept in the office trailer and in the operating equipment.

#### 19.0 RECORDS, PERMITS AND REPORTS

A copy of any Florida Department of Environmental Protection (FDEP) and Pasco County approved engineering drawings, permits and supporting information, and topographic survey will be kept at the facility for reference and inspections. Permits will be posted at site per ordinance. A waste type and quantity intake (in tons) log will be kept daily, compiled monthly and a report will be submitted annually to Pasco County and the FDEP.

An annual estimate of the remaining life and capacity in cubic yards of the landfill will be reported annually to the FDEP.

#### 19.1 Water Quality Monitoring

The Facility will conduct the required initial and semi-annual groundwater monitoring at the sites' monitoring wells as described in the Facility's Groundwater Monitoring Plan. Semi-annual reports of this monitoring will be submitted to Pasco County and FDEP in accordance with this plan. Quarterly monitoring will also be conducted and reported at specific wells per Pasco County conditions.

## 19.2 Landfill Operating Records

The operating record for the landfill will document daily as a minimum the following activities:

- Self-inspections of landfill conditions, safety equipment and unacceptable waste received, any odor detected;
- Records used to develop permit applications;
- Change in construction, operation or closure permits and supporting designs;
- Water quality sampling events, analytical reports, well installation or repair;
- Employee training;
- Random load checks;
- Facility construction, major maintenance, or demolition;
- Other activities that significantly affect facility operations.

Self-inspections of the landfill conditions are conducted daily, and more extensive inspections are included weekly. Daily inspections include general inspection of site access, site security, and conditions of intermediate cover. Weekly inspections include more detailed inspections of the conditions of the surface water and stormwater management systems and groundwater monitoring wells.

The Operating Record will be kept at the landfill and be accessible to the landfill operators to maintain and for FDEP or Pasco County inspection at reasonable times.

Operational records will be maintained for the design life of the landfill, with the exception of weigh tickets which will be kept at least 5 years. Water quality monitoring information, maintenance records, and permit reports will be maintained for a minimum of 10 years. Background water quality records will be maintained for the design period of the landfill.

## 20.0 EROSION CONTROL

The site's inherent design as an excavation pit will prevent stormwater from leaving the property. Stabilization by seeding and mulching of the final fill areas will occur as the fill operations progress from cell to cell.

## 21.0 FINAL GRADE PLAN

Interim grades of the cells are shown on the plans (Operations Plan Minor Modification Plan Set in Section 4) and in the cross-sections. Permitted mining activities will continue in accordance with the site's Class I mining permit. The final elevations after construction of future cells is planned to reclaim excavated areas back to the grade which existed prior to the site being opened as a mine with allowance for positive drainage. The Landfill Conceptual Closure Plan is provided in the Operations Plan Minor Modification Permit Plan Set.

## 22.0 CLOSURE AND LONG TERM CARE

The site's Reclamation and Closure Plan details the procedures to properly close and maintain the landfill during the 30-year post-closure period. A Closure Report will be prepared for the landfill that details the site-specific limitations for land use based on geotechnical stability (settlement), potential gas migration, and site access. Long-term maintenance of erosion controls, storm water controls and monitoring devices is discussed in the Closure Plan (Section 7).

## 23.0 CERTIFICATION

Laboratory testing and observation of cell floor conditions during cell construction completion will consist of the following:

- In-place density testing for each 12-inch thick soil lift, based on laboratory proctor test results for the construction material, will be recorded by a properly trained technician. These tests will be conducted in the location of each permeability test.
- Thickness testing of each lift will be recorded at a minimum frequency of two tests per acre, per lift.
- Confirmation hydraulic conductivity testing of Shelby tube or drive cylinder samples of the compacted cell floor material will be performed at a minimum frequency of one test per lift, per acre.
- Observance for unstable areas such as limestone, sinkholes and soft ground will be performed for each cell.

If the test data from a cell floor section does not meet the requirements of the anticipated conditions of the hydrogeological and geotechnical reports and the requirements of the facility construction permit, additional random samples may be tested from that cell section. If the additional testing

demonstrates that the hydraulic conductivity meets the requirements, the cell will be considered acceptable. If not, that cell will be reworked or reconstructed so that it will meet these requirements. Field test methods, including rejection criteria and corrective measures, shall coincide with 62-701.400(8).

Upon completion of construction of any cell (or cell increment) within the disposal facility, the Applicant will provide the FDEP with the necessary reports, documents, and form 62-701.900(2), F.A.C. demonstrating that the approved construction is complete and in accordance with the submitted plans. The operator will provide the completed form to the FDEP in accordance with Rule 62-701.320(9) a., F.A.C., along with the quality assurance test results described above.

#### 24.0 HISTORY OF ENFORCEMENT ACTION

In 2000, OGC Case No. 00-0009 was opened against the applicant for the Frontier Recycling facility (now Angelo's Recycling Facility) in Largo, Florida. A model consent order was used to resolve the issues of the case. The DEP's database did not include information regarding the subject of the enforcement.

In 2004, OGC Case No. 04-0887 (solid waste) and No. 04-0426 (stormwater) were opened against the applicant for Angelo's Recycling facility in Largo, Florida. ARM requested a minor permit modification to resolve the solid waste enforcement case. Formal enforcement was not taken to resolve the stormwater case. Instead, it was handled through submittal of a new permit application.

In 2006, OGC Case No. 06-0783 was opened against the applicant for the Enterprise Class III Landfill and Recycling Facility in Pasco County, Florida. ARM performed the corrective actions that were required to bring the facility into compliance and the assessed civil penalties were paid.

In 2007, OGC Case No. 07-1985 was opened against the applicant for the Angelo's C&D Recycling Waste Processing Facility in Apopka, Florida. ARM performed the corrective actions that were required to bring the facility into compliance and the assessed civil penalties were paid.

In 2007, Warning Letter #WL07-0019SW51SWD was issued to Angelo's Aggregate Materials, Ltd. for the Enterprise Class III Landfill. The Warning Letter was settled June 5, 2008 for total fines of \$18,397. In the "Proposed Settlement of Warning Letter WL07-0019SW51SWD", the Department acknowledged that Angelo's would not be considered "irresponsible" under FDEP Rule 62-701.320, FAC, as a result of the enforcement action.

In 2007, Warning Letter # WL07-0008SW52SWD was issued to Angelo's Aggregate Materials, Ltd. for the Recycling Waste Processing Facility in Largo, FL. The Warning Letter was settled April, 2009 for total fines of \$24,986. In the "Proposed Settlement of Amended Warning Letter WL07-0008SW52SWD", the Department acknowledged that Angelo's would not be considered "irresponsible" under FDEP Rule 62-701.320, FAC, as a result of the enforcement action.

ATTACHMENT 1  
FACILITY ENTRANCE SIGN





# Angelo's Recycled Materials

## ENTERPRISE CLASS III LANDFILL



**OPERATING HOURS: MONDAY - FRIDAY 7:00 am - 5:00 pm**

**SATURDAY 7 AM - 12 PM**

**24 Hour Emergency Contacts:**

**Manager 352 303 5618**

**ALL CUSTOMERS MUST CHECK IN AT GATE HOUSE**

**ACCEPTABLE WASTE:**

Construction and demolition debris, yard waste, land clearing, glass, carpet, cardboard, plastic, asbestos, paper, furniture, wood pallets, scrap and shredded tires.

**UNACCEPTABLE WASTE:** Household garbage, toxic and hazardous waste, batteries, appliances, automobile, paint, solvents, drums, septic tanks and pumping, whole tires.

**WARNING:**

We will be sorting all loads for prohibited waste. Any unacceptable waste/loads may be reloaded onto a vehicle to be taken to an appropriate disposal facility at your expense.

**NO SCAVENGING**

ATTACHMENT 2  
RANDOM LOAD INSPECTION FORM

- 

**Note: Forms must be maintained in Inspection Log Book**

**ENTERPRISE CLASS III LANDFILL****Load Rejection Form**

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

Time: \_\_\_\_\_ am/pm

**CUSTOMER/GENERATOR**

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

**TRANSPORTER/HAULER**☐ Same as Customer/Generator

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Vehicle License and State \_\_\_\_\_

**REASON FOR REJECTION**☐ Suspected Special Waste☐ Suspected Medical Waste☐ Non-Processable☐ Suspected Hazardous Waste☐ Suspected Asbestos☐ Other (Explain below)

Explanation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**ACKNOWLEDGEMENT**☐ Rejected prior to dumping☐ Rejected After Load was Dumped

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Driver's Signature \_\_\_\_\_ Operator's Signature \_\_\_\_\_

Customer/Generator Notified? ☐ YES ☐ NOTransporter/Hauler Notified? ☐ YES ☐ NO

If yes, name of person contacted \_\_\_\_\_

If yes, name of person contacted \_\_\_\_\_

ATTACHMENT 3  
FACILITY TRAINING LOG

# ENTERPRISE RECYCLING AND DISPOSAL FACILITY

## TRAINING LOG

COURSE	TRAINED OPERATOR INSTRUCTOR	HRS. ATTENDED	SIGNATURES/ DATE

ATTACHMENT 4  
GAS MONITORING SURVEY FORM

**ENTERPRISE RECYCLING & DISPOSAL FACILITY  
CLASS III LANDFILL  
GAS MONITORING SURVEY FORM**

Date: \_\_\_\_\_  
Instrument: \_\_\_\_\_  
Sampler: \_\_\_\_\_

GAS PROBE NO.	TIME OF READING	AMBIENT AIR TEMP (°F)	AMBIENT AIR OXYGEN CONTENT (%)	AMBIENT AIR METHANE (%) OF LEL	METHANE LEVEL Pre-Purge Measurement			METHANE LEVEL Post-Purge Measurement		
					% O <sub>2</sub>	% by vol.	% of LEL	% O <sub>2</sub>	% by vol.	% of LEL
1	Not installed									
2	Not installed									
3	Not installed									
4										
5										
6R										
7R										
8R										
9R										
10R										
11R										
12R										
13R										
14R										
15										
16	Not installed									
Scale house					N/A	N/A	N/A	N/A	N/A	N/A

NR -Not required, no methane indicated in pre-purge measurement

Notes: (wind direction, weather conditions damage to gas probes, adjacent off-site activity observed, etc.)



ATTACHMENT 5  
LIST OF APPROVED COURSES

## Florida's Solid Waste Operators &amp; Spotters

University of Florida

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## Track Detail

### Class I, III Landfill Operator

Is a solid waste facility that accepts Class I waste that is not hazardous waste and can be disposed in a lined landfill. The landfill may also accept yard trash, construction and demolition debris, processed tires, asbestos, carpet, cardboard, paper, glass, plastic, furniture other than appliances, or other materials approved by the FDEP that are not expected to produce leachate which poses a threat to public health or the environment. Operators required 24 hours initial course and pass exam with 70% proficiency, then 16 hours of continuing education every 3-year period.

### Requirements

#### Initial Courses

- 24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites)
- Initial Training Course for Landfill Operators and C&D Sites - 24 Hour
- SWANA - Manager of Landfill Operations [MOLO] & Exam
- SWANA-Management of Landfill Operations
- SWANA-Manager of Landfill Operations (MOLO) Course and Exam

#### Hours

Hours Required	Effective Date
15	01/01/1800
16	05/27/2001

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## Florida's Solid Waste Operators &amp; Spotters

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## Track Detail

### Spotter / Waste Screener

Is a person employed at a solid waste management facility whose job it is to inspect incoming waste and to identify and properly manage any hazardous or prohibited materials, which are received at the facility. Spotter required 8 hours initial course, then 4 hours of continuing education every 3-year period.

### Requirements

#### Initial Courses

- 8-Hour Initial Training Course for Spotters at Class I, II, III Facilities, Waste Processing Facilities and C&D Facilities
- 8-hour Initial Training for Spotters
- 8-Hour Spotter Training for Class I II III Landfill C&D Sites and Transfer Facilities
- 8-Hour Training Course for Spotters at Landfills, C&D Sites and Transfer Stations
- Environmental Management Systems: An Introduction
- Spotter Training
- Spotter Training for Solid Waste Facilities
- Spotter Training for Solid Waste Facilities - Spanish
- Spotter Training for Solid Waste Management Staff with Elements of a Solid Waste Operations Plan
- Waste Screening and Identification for Landfill Operators and Spotters
- Waste Screening at MSW Mgmt Facilities [Onsite Delivery]

#### Hours

Hours Required	Effective Date
4	01/01/1800

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## Florida's Solid Waste Operators &amp; Spotters

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## Course Information

<u>Course #</u>	<u>Name</u>	<u>Status</u>
582	<a href="#">16-Hour Initial Training Course for Transfer Station and MRF Operators</a>	Active
575	<a href="#">2010 North American Environmental Field Conference and Expo</a>	Active
516	<a href="#">24 Hour HazMat Technician Level</a>	Active
608	<a href="#">24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&amp;D Sites)</a>	Active
478	<a href="#">40 Hour HazWoper</a>	Active
507	<a href="#">40-Hour HazWoper</a>	Active
626	<a href="#">40-Hour HazWoper Course in Accordance to 29 CFR 1910.120</a>	Active
646	<a href="#">40-Hour OSHA HazWoper</a>	Active
69	<a href="#">40-hour OSHA HAZWOPER Training Course</a>	Active
450	<a href="#">40hr General Site Worker Hazardous Waste Operations</a>	Active
463	<a href="#">4-Hour Refresher Course for Spotters at Landfills, C&amp;D Sites and Transfer Stations</a>	Active
616	<a href="#">6-Hour DOT Regulations</a>	Active
601	<a href="#">8 Hour General Site Worker Refresher Training</a>	Active
623	<a href="#">8 Hour HazWoper Refresher Training</a>	Active
203	<a href="#">8-Hour Initial Training Course for Spotters at Class I, II, III Facilities, Waste Processing Facilities and C&amp;D Facilities</a>	Active
219	<a href="#">8-hour Initial Training for Spotters</a>	Active
62	<a href="#">8-Hour OSHA HazWoper Annual Refresher</a>	Active
644	<a href="#">8-Hour OSHA HazWoper Refresher</a>	Active
488	<a href="#">8-Hour Spotter Training for Class I II III Landfill C&amp;D Sites and Transfer Facilities</a>	Active
462	<a href="#">8-Hour Training Course for Spotters at Landfills, C&amp;D Sites and Transfer Stations</a>	Active
410	<a href="#">Adult CPR</a>	Active
0	<a href="#">Adult CPR</a>	Active
675	<a href="#">Air Regulations and How They Impact MSW Facilities</a>	Active
624	<a href="#">ANSI/AIHA Z10-2006 Occupational Safety and Health Management Systems Training Course Construction Standard</a>	Active
652	<a href="#">Asbestos: Awareness (Class IV)</a>	Active
630	<a href="#">Basic Life Support</a>	Active
639	<a href="#">Bird and Wildlife Management for Utilities</a>	Active
550	<a href="#">Bloodborne Pathogens</a>	Active
618	<a href="#">Carbon Markets, Offsets &amp; Project Level GHG Accounting</a>	Active
614	<a href="#">Chemical Spill Response Training for Hazardous Materials Operations/OSHA Level II</a>	Active
386	<a href="#">Community Hurricane Preparedness - online</a>	Active
525	<a href="#">Composting Wastewater Residuals (Biosolids) in Charlotte County</a>	Active
656	<a href="#">Confined Space Awareness</a>	Active
657	<a href="#">Confined Space Competent Person Training</a>	Active
436	<a href="#">Confined Space Entry Safety Course</a>	Active
440	<a href="#">Construction and Demolition Debris Workshop</a>	Active
485	<a href="#">Contemporary Techniques of Supervision/Management</a>	Active
357	<a href="#">CPR and First Aid</a>	Active

# Course Information - Florida's Solid Waste Operators and Spotters

520	<a href="#">Design of Waste Containment Liners and Closure Systems</a>	Active
457	<a href="#">Disaster Debris Management</a>	Active
544	<a href="#">EIA/NSWMA Safety Seminar</a>	Active
542	<a href="#">Electrical Troubleshooting &amp; Preventive Maintenance</a>	Active
596	<a href="#">Emergency Response and Recovery Training</a>	Active
557	<a href="#">Environmental Quality Training Workshop</a>	Active
563	<a href="#">Environmental Safety Occupational Health [EOSH] 2009 Training Symposium</a>	Active
568	<a href="#">Environmental Sampling Field Course</a>	Active
679	<a href="#">Environmental Studies</a>	Active
500	<a href="#">Excavation and Trenching Safety Procedures</a>	Active
100	<a href="#">Excavation and Trenching: Competent Person Training</a>	Active
228	<a href="#">FDEP 8 Hour HazWoper OSHA Refresher</a>	Active
435	<a href="#">FDEP 8 Hour HazWoper OSHA Refresher [DeHate]</a>	Active
433	<a href="#">FDEP Annuals SQG Workshop [5/3-5/06]</a>	Active
434	<a href="#">FDEP Household Hazardous Waste Workshop [5/1-3/06]</a>	Active
445	<a href="#">FEMA Debris Management Course</a>	Active
678	<a href="#">FEMA Debris Management Course - G202</a>	Active
484	<a href="#">Fires at Landfills and Other Solid Waste Management Facilities</a>	Active
411	<a href="#">First Aid (Standard) Workplace Training</a>	Active
634	<a href="#">Florida Composting Facility Operator Training Course: Introduction to Handling Source Separated Organics</a>	Active
491	<a href="#">Florida Construction &amp; Demolition Debris &amp; Management Workshop - May 2008</a>	Active
451	<a href="#">Florida Water &amp; Pollution Control Operators Association Short School - Stormwater Section</a>	Active
579	<a href="#">Food Recycling and Composting Workshop</a>	Active
521	<a href="#">Foundations of Project Management</a>	Active
156	<a href="#">Four Hour Spotter Refresher for Class I, II and III Landfills, Waste Processing Facilities and C&amp;D Facilities</a>	Active
591	<a href="#">Fundamentals of Emergency Management</a>	Active
638	<a href="#">General Site Worker 8-hour Refresher Course Hazardous Waste Operations &amp; Emergency Response</a>	Active
423	<a href="#">Geosynthetic Testing and Landfill Design Issues Short Course</a>	Active
629	<a href="#">Getting Back to Basics With Landfill Gas</a>	Active
545	<a href="#">GHG Reporting for Landfill &amp; Wastewater Treatment - Webinar</a>	Active
558	<a href="#">Greenhouse Gas Accounting</a>	Active
0	<a href="#">Greenhouse Gas Accounting- Measuring an Organization's Carbon Footprint</a>	Active
604	<a href="#">Greenhouse Gas Recovery at Solid Waste Landfills</a>	Active
224	<a href="#">Hazardous Materials in Construction and Demolition Waste OnLine</a>	Active
503	<a href="#">Hazardous Materials Incident &amp; Waste Training - 24 Hours</a>	Active
356	<a href="#">Hazardous Materials Incident Response Operations-40hr</a>	Active
469	<a href="#">Hazardous Materials Operations / OSHA Level II</a>	Active
439	<a href="#">Hazardous Materials Training</a>	Active
510	<a href="#">Hazardous Waste Management Course</a>	Active
535	<a href="#">Hazardous Waste Management: The Complete Course - 16 hour</a>	Active
541	<a href="#">Hazardous Waste Management: The Complete Course - 8 hour</a>	Active
540	<a href="#">Hazardous Waste Operations with Emergency Response</a>	Active
63	<a href="#">Hazardous Waste Regulations for Generators</a>	Active
514	<a href="#">Hazardous/Chemical Safety Training</a>	Active
555	<a href="#">HazMat IQ</a>	Active
216	<a href="#">HazWoper 40-Hour Health &amp; Safety Online</a>	Active
421	<a href="#">HazWoper 40-Hour OSHA Course</a>	Active

# Course Information - Florida's Solid Waste Operators and Spotters

218	<a href="#">HazWoper 8-Hour Refresher Online</a>	Active
422	<a href="#">HazWoper 8-Hour Refresher OSHA Course</a>	Active
659	<a href="#">HazWoper Refresher</a>	Active
617	<a href="#">HazWoper Training for Escambia County</a>	Active
170	<a href="#">Health &amp; Safety Issues for Solid Waste Management Facilities</a>	Active
498	<a href="#">Health and Safety for Solid Waste Workers-4 Hours</a>	Active
281	<a href="#">Health and Safety for Solid Waste Workers-8 Hours</a>	Active
149	<a href="#">Health and Safety Training for Landfill Operations</a>	Active
495	<a href="#">Heavy Equipment Safety</a>	Active
492	<a href="#">Hurricane Debris Management Workshop</a>	Active
683	<a href="#">Hydraulic Excavator Operator Training</a>	Active
613	<a href="#">Identification of Unknowns</a>	Active
476	<a href="#">Improving Landfill Operations</a>	Active
517	<a href="#">Improving Transfer Station Efficiency</a>	Active
442	<a href="#">Initial Training Course for Landfill Operators and C&amp;D Sites - 24 Hour</a>	Active
443	<a href="#">Initial Training Course for Transfer Station Operators and Material Recovery Facilities - 16 Hour</a>	Active
628	<a href="#">Innovative Recycling Grant Workshop at Polk County Landfill</a>	Active
574	<a href="#">Integrated Waste Management Workshop</a>	Active
645	<a href="#">Introduction to Debris Operations in FEMA Public Assistance Program IS-632</a>	Active
212	<a href="#">Introduction to Electrical Maintenance</a>	Active
527	<a href="#">Introduction to Heavy Equipment and Skill Testing</a>	Active
0	<a href="#">Introduction to Wastescreening for Spotters-Spanish</a>	Active
546	<a href="#">IS-700.a NIMS An Introduction</a>	Active
472	<a href="#">Landfill and Transfer Station Operators: Waste Acceptability and Safety Issues Review</a>	Active
676	<a href="#">Landfill Design and Construction</a>	Active
518	<a href="#">Landfill Gas Collection and Re-Use</a>	Active
686	<a href="#">Landfill Gas Collection System Operations and Compliance Training Course</a>	Active
511	<a href="#">Landfill Gas Control and Compliance Seminar</a>	Active
650	<a href="#">Landfill Operations</a>	Active
399	<a href="#">Landfill Operator and MRF Operator Training</a>	Active
589	<a href="#">Landfill Operator Training - 2007 Certified Operators Class</a>	Active
588	<a href="#">Landfill Operator Training 2008 - Certified Operators Class</a>	Active
553	<a href="#">Landfills and Transfer Stations: Past, Present and Future</a>	Active
552	<a href="#">Landfills: Past, Present and Future</a>	Active
441	<a href="#">Laws and Rules</a>	Active
277	<a href="#">Laws and Rules for Florida Engineers</a>	Active
677	<a href="#">Leachate and Landfill Gas Management System Design</a>	Active
684	<a href="#">Linear Construction - Stormwater Compliance for Road and Utility Construction</a>	Active
538	<a href="#">Maintenance of Traffic Training</a>	Active
654	<a href="#">Mathematics for Landfill Operators</a>	Active
523	<a href="#">Maximizing Beneficial Use of Disaster Debris</a>	Active
674	<a href="#">Measurement and Improvement of Performance at Solid Waste Management Facilities ("If you Can't Measure it, You Can't Manage It")</a>	Active
3	<a href="#">Military Service Active Duty</a>	Active
528	<a href="#">NAHAMMA Conf HHW / SQG Workshop - 2009 - HazMat IQ Training</a>	Active
528	<a href="#">NAHAMMA Conference HHW / SQG Workshop - 2009 - General Session</a>	Active
609	<a href="#">NAHMMA 2010 Annual Conference</a>	Active
653	<a href="#">NAHMMA 2011 Florida Chapter Annual Conference</a>	Active
424	<a href="#">National Incident Management System [NIMS] and Introduction IS-00700</a>	Active

# Course Information - Florida's Solid Waste Operators and Spotters

454	<a href="#">North American Hazardous Materials Management Association Conference 2007 - FL Chapter</a>	Active
489	<a href="#">North American Hazardous Materials Management Association Conference 2008- FL Chapter</a>	Active
670	<a href="#">North Carolina Landfill Manager Course</a>	Active
1001	<a href="#">OK per "Current" Class I II III Transcript</a>	Active
621	<a href="#">Online Laws and Rules</a>	Active
438	<a href="#">Operating Considerations for Transfer Stations</a>	Active
655	<a href="#">Operational Techniques and Compliance Inspections for Landfills</a>	Active
412	<a href="#">Operator Certification for Caterpillar Landfill Equipment</a>	Active
0	<a href="#">OSHA 10-Hour General Industry Course</a>	Active
547	<a href="#">OSHA 10-Hour General Industry Outreach Course</a>	Active
619	<a href="#">OSHA 10-Hour Industrial Outreach Safety Training Program</a>	Active
592	<a href="#">OSHA 1910 General Industry 10-Hour Course</a>	Active
0	<a href="#">OSHA 24 Hour Emergency Response Course (Technician Level)</a>	Active
0	<a href="#">OSHA 8-hour HazWoper Refresher Training</a>	Active
561	<a href="#">OSHA Annual Refresher at KSC</a>	Active
515	<a href="#">OSHA Operations Level Course</a>	Active
532	<a href="#">Paint Filter Test - 1 Hour</a>	Active
192	<a href="#">Pedestrian, Vehicles and Equipment Safety at Transfer Stations</a>	Active
494	<a href="#">Permit Required Confined Space Awareness</a>	Active
104	<a href="#">Permit Required Confined Space Entry</a>	Active
0	<a href="#">Permit Required Confined Space Entry Supervisor</a>	Active
497	<a href="#">Personal Protection Equipment (PPE) and Safety Procedures</a>	Active
602	<a href="#">Personal Radiation Detector Course [PRD] PER-243</a>	Active
533	<a href="#">Principles of Landfill Fires E-Course</a>	Active
468	<a href="#">Project Risk Management</a>	Active
603	<a href="#">Recycle Florida Today - 2010 Annual Conference</a>	Active
651	<a href="#">Recycle Florida Today - 2011 Annual Conference</a>	Active
432	<a href="#">Recycle Florida Today 2006 Annual Conf</a>	Active
431	<a href="#">Recycle Florida Today 2006 Issues Forum 1/2006</a>	Active
414	<a href="#">Recycle Florida Today 2006 Issues Forum 1/23-24/06</a>	Active
460	<a href="#">Recycle Florida Today 2007 Annual Confrence - 6/4-7/2007</a>	Active
512	<a href="#">Recycle Florida Today 2008 Annual Conference</a>	Active
554	<a href="#">Recycle Florida Today Conference [June 2009]</a>	Active
479	<a href="#">Recycled Florida Today 2007 Issues Forum 1/2007</a>	Active
0	<a href="#">Recycled Florida Today 2007 Issues Forum 1/2007</a>	Active
661	<a href="#">Refresher Training Course for Experienced Solid Waste Operators-16 Hours</a>	Active
663	<a href="#">Refresher Training Course for Experienced Solid Waste Operators-4 Hours</a>	Active
662	<a href="#">Refresher Training Course for Experienced Solid Waste Operators-8 Hours</a>	Active
627	<a href="#">RFT / SWANA FL Winter Meeting &amp; Issues Forum 2011</a>	Active
687	<a href="#">RFT / SWANA FL Winter Meeting &amp; Issues Forum 2012</a>	Active
581	<a href="#">RFT/SWANA-FL Winter Wonderland in Waste - 2010 Issues Forum</a>	Active
565	<a href="#">Sanitary Landfill Design</a>	Active
690	<a href="#">Sector L: Landfills &amp; Land Application Sites</a>	Active
4811	<a href="#">Solid Waste Operator &amp; Spotter Refresher Training - Spring 2008 a</a>	Active
584	<a href="#">Southeast Recycling 2010 Conference &amp; Trade Show</a>	Active
640	<a href="#">Southeast Recycling 2011 Conference &amp; Trade Show</a>	Active
692	<a href="#">Southeast Recycling 2012 Conference &amp; Trade Show</a>	Active
580	<a href="#">Southwest Partners Meeting</a>	Active



# Course Information - Florida's Solid Waste Operators and Spotters

605	<a href="#">SPCC - Spill Prevention Control Act - online</a>	Active
526	<a href="#">Spill Prevention, Control, and Countermeasure Regulation Seminar</a>	Active
400	<a href="#">Spotter Training</a>	Active
0	<a href="#">Spotter Training</a>	Active
214	<a href="#">Spotter Training</a>	Active
437	<a href="#">Spotter Training Course for Waste Processing and Transfer Stations</a>	Active
248	<a href="#">Spotter Training for Solid Waste Facilities</a>	Active
378	<a href="#">Spotter Training for Solid Waste Facilities - Spanish</a>	Active
474	<a href="#">Spotter Training for Solid Waste Management Staff with Elements of a Solid Waste Operations Plan</a>	Active
471	<a href="#">Spotters at Landfills and Transfer Stations: Safety Awareness Review</a>	Active
506	<a href="#">Storage Tank Conference - Central Florida 18th Annual</a>	Active
505	<a href="#">Storage Tank Conference - North Florida 14th Annual</a>	Active
578	<a href="#">Storage Tank Conference -16th Annual Central Florida State Conference</a>	Active
453	<a href="#">Storage Tank Conference 17th Annual</a>	Active
475	<a href="#">Storage Tank Conference Central Florida State 13th Annual</a>	Active
647	<a href="#">Stormwater Erosion And Sedimentation Control Inspector Training Program</a>	Active
202	<a href="#">Stormwater Inspector Certification Course</a>	Active
594	<a href="#">Stormwater Matters</a>	Active
632	<a href="#">Supervisor Safety Training for Solid Waste Operations Staff</a>	Active
586	<a href="#">Sustainability and Recycling</a>	Active
429	<a href="#">SWANA - Compost on Subtitle D Landfills - Webinar</a>	Active
416	<a href="#">SWANA - eCourse - Litter Management at Landfills</a>	Active
567	<a href="#">SWANA – Groundwater Monitoring, Sampling, Analysis and Well Construction</a>	Active
636	<a href="#">SWANA - Integrated Solid Waste Management</a>	Active
693	<a href="#">SWANA - Landfill Gas Basics 1-Day Course</a>	Active
635	<a href="#">SWANA - Landfill Gas Systems Operation and Maintenance</a>	Active
694	<a href="#">SWANA - Landfill Gas Systems Operation and Maintenance - 1 day</a>	Active
537	<a href="#">SWANA - Landfill Operations E- Course</a>	Active
543	<a href="#">SWANA - Landfill Symposium 14th Annual (June 2009)</a>	Active
597	<a href="#">SWANA - Manager of Landfill Operations [MOLO]</a>	Active
598	<a href="#">SWANA - Manager of Landfill Operations [MOLO] &amp; Exam</a>	Active
560	<a href="#">SWANA - Manager of Recycling Course</a>	Active
413	<a href="#">SWANA 2006 Recycling and Special Waste Conference</a>	Active
562	<a href="#">SWANA E-Course Just the Math</a>	Active
556	<a href="#">SWANA e-Course Operation Efficiency at Landfills</a>	Active
599	<a href="#">SWANA e-course: Bioreactor Landfill Research &amp; Development Agencies</a>	Active
577	<a href="#">SWANA e-course: Carbon Credit and Production Tax Credits for LFG Projects</a>	Active
576	<a href="#">SWANA e-course: Financing Solid Waste Facilities: The Roller Coaster to Oblivion?</a>	Active
691	<a href="#">SWANA e-course: Traumatic Injury and Fatality Risks in Solid Waste</a>	Active
564	<a href="#">SWANA- Health &amp; Safety E-Study (Home Study Course)</a>	Active
566	<a href="#">SWANA- Managing Landfill Gas at MSW Landfills</a>	Active
297	<a href="#">SWANA Online - Health &amp; Safety at MSW Landfills</a>	Active
296	<a href="#">SWANA Online - Training Sanitary Landfill Operation Personnel</a>	Active
298	<a href="#">SWANA Online - Wastescreening at MSWS Facilities</a>	Active
345	<a href="#">SWANA-Bioreactor Landfill Course</a>	Active
404	<a href="#">SWANA-Bioreactor Landfill Manager</a>	Active
250	<a href="#">SWANA-Construction and Demolition Debris Course</a>	Active
685	<a href="#">SWANA-e Course: Groundwater Monitoring</a>	Active



# Course Information - Florida's Solid Waste Operators and Spotters

643	<a href="#">SWANA-e Course: Landfill Gas &amp; Solid Waste Air Contaminant Hazards</a>	Active
252	<a href="#">SWANA-FEMA's Debris Management</a>	Active
425	<a href="#">SWANA-FL 2006 Spring Tri-State Conference [ 4/2-5/06]</a>	Active
426	<a href="#">SWANA-FL 2006 Summer Conference [7/23-26/06]</a>	Active
447	<a href="#">SWANA-FL 2007 Summer Conference [7/15-18/07]</a>	Active
480	<a href="#">SWANA-FL 2008 Senior Managers Conference [1/2008]</a>	Active
551	<a href="#">SWANA-FL 2009 Summer Symposium</a>	Active
607	<a href="#">SWANA-FL 2010 Summer Conference</a>	Active
658	<a href="#">SWANA-FL 2011 Summer Conference</a>	Active
534	<a href="#">SWANA-FL Managers Meeting - 2009 Winter</a>	Active
606	<a href="#">SWANA-FL Road-e-o: Heavy Equipment Safety Training</a>	Active
94	<a href="#">SWANA-Health &amp; Safety at MSW Landfills</a>	Active
244	<a href="#">SWANA-Landfill Gas Basics</a>	Active
428	<a href="#">SWANA-Landfill Gas Symposium 29th Annual [3/27-30/06]</a>	Active
446	<a href="#">SWANA-Landfill Gas Symposium 30th Annual [3/4-8/07]</a>	Active
483	<a href="#">SWANA-Landfill Gas Symposium 31st Annual [3/2008]</a>	Active
536	<a href="#">SWANA-Landfill Gas Symposium 32nd</a>	Active
689	<a href="#">SWANA-Landfill Gas Symposium 35th Annual - 2012</a>	Active
231	<a href="#">SWANA-Landfill Gas System Operation and Maintenance</a>	Active
539	<a href="#">SWANA-Landfill Gas System Operations Workshop</a>	Active
93	<a href="#">SWANA-Landfill Operational Issues</a>	Active
681	<a href="#">SWANA-Landfill Symposium (16th Annual - 2011)</a>	Active
427	<a href="#">SWANA-Landfill Symposium 11th Annual [6/5-7/06]</a>	Active
465	<a href="#">SWANA-Landfill Symposium 12th Annual [6/25-28/07]</a>	Active
30	<a href="#">SWANA-Management of Landfill Operations</a>	Active
1	<a href="#">SWANA-Manager of Landfill Operations (MOLO) - Exam Only</a>	Active
1600	<a href="#">SWANA-Manager of Landfill Operations (MOLO) Course</a>	Active
160	<a href="#">SWANA-Manager of Landfill Operations (MOLO) Course and Exam</a>	Active
243	<a href="#">SWANA-Managing Composting Programs</a>	Active
251	<a href="#">SWANA-Managing MSW Collection Systems</a>	Active
234	<a href="#">SWANA-Managing MSW Recycling Systems</a>	Active
222	<a href="#">SWANA-Managing Transfer Station Systems</a>	Active
444	<a href="#">SWANA-Transfer Station Design &amp; Operations</a>	Active
42	<a href="#">SWANA-Transfer Station Design &amp; Operations</a>	Active
448	<a href="#">SWANA-WasteCon 2006 [9/19-21/06]</a>	Active
455	<a href="#">SWANA-WasteCon 2007 [10/16-18/07]</a>	Active
509	<a href="#">SWANA-WasteCon 2008</a>	Active
559	<a href="#">SWANA-WasteCon 2009</a>	Active
660	<a href="#">SWANA-WasteCon 2011</a>	Active
570	<a href="#">The Complete Ground Water Monitoring Field Course</a>	Active
572	<a href="#">The Complete Ground Water Monitoring Well Design, Construction and Development Course</a>	Active
569	<a href="#">The Complete Ground Water Sampling Field Course</a>	Active
116	<a href="#">The Complete Ground-Water Monitoring Course</a>	Active
571	<a href="#">The Complete Surface Water and Sediment Field Course</a>	Active
573	<a href="#">The Florida Stormwater Construction Permit-Contractor's Short Course</a>	Active
530	<a href="#">The Original Environmental Bootcamp</a>	Active
406	<a href="#">The Sense of Smell, Odor, Theory and Odor Control</a>	Active
612	<a href="#">Things That Go Boom</a>	Active

625	<a href="#">Topics in Solid Waste Management for Landfill Operators, MRF Operators and Transfer Station Operators</a>	Active
477	<a href="#">Tractor/Mower Operator Safety Training Program</a>	Active
187	<a href="#">Traffic and Equipment Safety at Landfills</a>	Active
680	<a href="#">Train the Trainer: How to Design &amp; Deliver Effective Training</a>	Active
641	<a href="#">Train-the-Trainer for Operator of Heavy Equipment</a>	Active
642	<a href="#">Trenching Shoring Services Safety in Excavation Course</a>	Active
112	<a href="#">U.S. DOT Hazardous Materials/Waste Transportation</a>	Active
519	<a href="#">Understanding Hazardous Waste in Solid Waste Operations</a>	Active
419	<a href="#">Waste Expo [4/4-6/06]</a>	Active
549	<a href="#">Waste Expo 2007</a>	Active
595	<a href="#">Waste Expo 2010</a>	Active
36	<a href="#">Waste Screening and Identification for Landfill Operators and Spotters</a>	Active
9	<a href="#">Waste Screening at MSW Mgmt Facilities [Onsite Delivery]</a>	Active
51	<a href="#">Waste Screening at Municipal Solid Waste [5/23/94, 12/5/01]</a>	Active
0	<a href="#">Waste Screening Introduction-Spanish</a>	Active
524	<a href="#">Waste Screening Refresher for Supervisors and Managers</a>	Active
418	<a href="#">Waste Tech 2006 [2/27-28/06]</a>	Active
508	<a href="#">Waste Tech 2007</a>	Active
587	<a href="#">Waste-to-Fuels 2010 Conference</a>	Active
622	<a href="#">Wet Weather Operations</a>	Active
449	<a href="#">Wetlands Variance Training</a>	Active
673	<a href="#">Wildlife and Plants at Florida Solid Waste Management Facilities</a>	Active
482	<a href="#">Workzone Safety Training</a>	Active

ATTACHMENT 6  
TRAINING CERTIFICATES

# Florida DEP Landfill Operators

Company Name: angelo  
All Districts District Only  
Printed: 03/08/2019

1. **Hours Required:** The hours needed before the expiration date in order to keep the certification valid.

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**Arnold, John P.** · Angelos Recycled Materials · Saint Petersburg · Pasco County

Title	Initial Date	Hours Required <sup>1</sup>	Expiration Date
Class I, III Landfill Operator	11/25/2013	16	11/24/2019
Construction and Demolition Debris Landfill Operator	11/25/2013	16	11/24/2019
Material Recovery Facility Operator	11/25/2013	8	11/24/2019
Spotter / Waste Screener	11/25/2013	4	11/24/2019
Transfer Station Operator	11/25/2013	8	11/24/2019

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**Baglieri, John** · Angelo's Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <sup>1</sup>	Expiration Date
Material Recovery Facility Operator	10/11/2017	8	10/10/2020
Transfer Station Operator	10/11/2017	8	10/10/2020

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**Blakey, Daniel** · Angelo's Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <sup>1</sup>	Expiration Date
Material Recovery Facility Operator	10/12/2017	8	10/11/2020
Transfer Station Operator	10/12/2017	8	10/11/2020

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**Bracewell, Brandon** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <sup>1</sup>	Expiration Date
Material Recovery Facility Operator	01/20/2016	8	01/19/2019
Transfer Station Operator	01/20/2016	8	01/19/2019

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**Canal, Randy** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <sup>1</sup>	Expiration Date
Material Recovery Facility Operator	07/23/2014	8	07/22/2020
Transfer Station Operator	07/23/2014	8	07/22/2020

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**Cox, Luther** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <sup>1</sup>	Expiration Date
Material Recovery Facility Operator	02/04/2017	8	02/03/2020
Transfer Station Operator	02/04/2017	8	02/03/2020

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**Curtin, Phillip** · Angelo's Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <sup>1</sup>	Expiration Date
Class I, III Landfill Operator	12/13/2018	4	12/12/2021
Construction and Demolition Debris Landfill Operator	12/13/2018	4	12/12/2021
Material Recovery Facility Operator	12/13/2018	0	12/12/2021
Transfer Station Operator	12/13/2018	0	12/12/2021

**De Rubeis, Neiro** · Angelos Recycled Materials · St. Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Class I, III Landfill Operator	11/25/2013	16	11/24/2019
Construction and Demolition Debris Landfill Operator	11/25/2013	16	11/24/2019
Material Recovery Facility Operator	11/25/2013	8	11/24/2019
Spotter / Waste Screener	11/25/2013	4	11/24/2019
Transfer Station Operator	11/25/2013	8	11/24/2019

**Guajardo, Fabian** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	11/04/2016	8	11/03/2019
Transfer Station Operator	11/04/2016	8	11/03/2019

**Hamilton, Lyddon** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Spotter / Waste Screener	11/03/2016	4	11/02/2019

**Harris, Erik** · Angelo's Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	10/12/2017	8	10/11/2020
Transfer Station Operator	10/12/2017	8	10/11/2020

**Harvey, Donald** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	11/04/2016	8	11/03/2019
Transfer Station Operator	11/04/2016	8	11/03/2019

**Hendricks, Dondi** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Spotter / Waste Screener	12/13/2018	4	12/12/2021

**Iafate, Dominic** · Angelos Recycled Materials · Lutz

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Class I, III Landfill Operator	11/21/2008	16	11/20/2020
Construction and Demolition Debris Landfill Operator	11/21/2008	16	11/20/2020
Material Recovery Facility Operator	11/25/2013	8	11/24/2019
Spotter / Waste Screener	11/25/2013	4	11/24/2019
Transfer Station Operator	11/25/2013	8	11/24/2019

**Iafate, Stephen M.** · Angelos Recycled Materials · Largo

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Class I, III Landfill Operator	11/25/2013	16	11/24/2019
Construction and Demolition Debris Landfill Operator	11/25/2013	16	11/24/2019
Material Recovery Facility Operator	11/25/2013	8	11/24/2019
Spotter / Waste Screener	11/25/2013	4	11/24/2019
Transfer Station Operator	11/25/2013	8	11/24/2019

**Jordan, Eddie** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	01/31/2012	8	01/30/2021
Transfer Station Operator	01/31/2012	8	01/30/2021

**Martinez, Alfredo T** · Angelo's Recycle Materials · Saint Petersburg · Pasco County

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Class I, III Landfill Operator	12/13/2018	16	12/12/2021
Construction and Demolition Debris Landfill Operator	12/13/2018	16	12/12/2021
Spotter / Waste Screener	10/10/2009	0	10/09/2015
Spotter / Waste Screener	10/10/2012	0	10/09/2015

**Martinez, Saturnino** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Spotter / Waste Screener	12/13/2018	4	12/12/2021

**Mathews, Katrina** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	04/12/2017	8	04/11/2020
Transfer Station Operator	04/12/2017	8	04/11/2020

**Moore, Robert** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	07/23/2014	8	07/22/2020
Transfer Station Operator	07/23/2014	8	07/22/2020

**Nunez, Demetrio** · Angelo's Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Spotter / Waste Screener	12/13/2018	4	12/12/2021

**Olson, Donna** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	02/04/2017	8	02/03/2020
Transfer Station Operator	02/04/2017	8	02/03/2020

**Pedraza, Jesus** · Angelos Recycle Materials · Saint Petersburg · Pinellas County

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	10/12/2017	8	10/11/2020
Spotter / Waste Screener	01/14/2006	4	01/13/2021
Transfer Station Operator	10/12/2017	8	10/11/2020

**Pryor, Derek** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	04/12/2017	8	04/11/2020
Transfer Station Operator	04/12/2017	8	04/11/2020

**Richardson, Frank** · Angelo's Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	12/13/2018	8	12/12/2021
Transfer Station Operator	12/13/2018	8	12/12/2021

**Ritt, Robert** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	01/20/2016	8	01/19/2019
Transfer Station Operator	01/20/2016	8	01/19/2019

**Russo, Brian** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	07/23/2014	8	07/22/2020
Spotter / Waste Screener	01/19/2016	4	01/18/2019
Transfer Station Operator	07/23/2014	8	07/22/2020

**Samuels, Howaldo** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Spotter / Waste Screener	11/03/2016	4	11/02/2019

**Santos, Victor Alfonso** · Angelos Recycled Materials · Largo

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Class I, III Landfill Operator	09/04/2015	16	09/03/2021
Construction and Demolition Debris Landfill Operator	09/04/2015	16	09/03/2021

**Scott, Willie** · Angelos Recycle Materials · Dade City

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Spotter / Waste Screener	10/10/2012	4	10/09/2018

**Simmons, James** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	11/04/2016	8	11/03/2019
Transfer Station Operator	11/04/2016	8	11/03/2019

**Stanley, Keith** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	02/04/2017	8	02/03/2020
Transfer Station Operator	02/04/2017	8	02/03/2020

**Valdiviezo, Mario** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	04/18/2018	8	04/17/2021
Transfer Station Operator	04/18/2018	8	04/17/2021

**Wesson, Joyce** · Angelo's Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	12/13/2018	8	12/12/2021
Transfer Station Operator	12/13/2018	8	12/12/2021

**Westmoreland, Angela** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	02/04/2017	8	02/03/2020
Transfer Station Operator	02/04/2017	8	02/03/2020

**Williams, Jim** · Angelos Recycled Materials · Saint Petersburg

Title	Initial Date	Hours Required <a href="#">1</a>	Expiration Date
Material Recovery Facility Operator	11/04/2016	8	11/03/2019
Transfer Station Operator	11/04/2016	8	11/03/2019



*Jerry Wood, P.E.*

Certifies that

**Demetrio Nunez**

has successfully completed the 8-Hour Initial Training Course for Solid Waste Management Facility Operators titled:

**8-Hour Initial Training Course for Spotters at Solid Waste Management Facilities  
in Florida #812**

**November 26, 2018**

And has Successfully Completed the Required Examination in Accordance with the Initial Training Requirements for Landfill Operators in Florida

  
Jerry Wood, P.E./Instructor

Signed December 17, 2018





*Jerry Wood, P.E.*

Certifies that

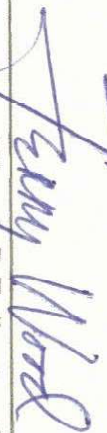
## **Saturnino Martinez**

has successfully completed the 8-Hour Initial Training Course for Solid Waste Management Facility Operators titled:

**8-Hour Initial Training Course for Spotters at Solid Waste Management Facilities  
in Florida #812**

**November 26, 2018**

And has Successfully Completed the Required Examination in Accordance with the Initial  
Training Requirements for Landfill Operators in Florida

  
Jerry Wood, P.E./Instructor

Signed December 17, 2018





*Jerry Wood, P.E.*

Certifies that

**Alfredo Martinez**

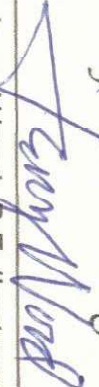
has successfully completed the 24-Hour Initial Training Course for Solid Waste Management Facility Operators entitled:

**24-Hour Initial Training for Landfill Operators**

**(Class I, III and C&D Sites) #608**

**November 26 and December 12 & 13, 2018**

And has Successfully Completed the Required Examination in Accordance with the Initial Training Requirements for Landfill Operators in Florida;  
Or has attended ~~for~~ Continuing Education hours.

  
Jerry Wood, P.E./Instructor  
Signed December 17, 2018





*Jerry Wood, P.E.*

Certifies that

**Phillip Curtin**

has successfully completed the 24-Hour Initial Training Course for Solid Waste Management Facility Operators entitled:


**24-Hour Initial Training for Landfill Operators**

**(Class I, III and C&D Sites) #608**

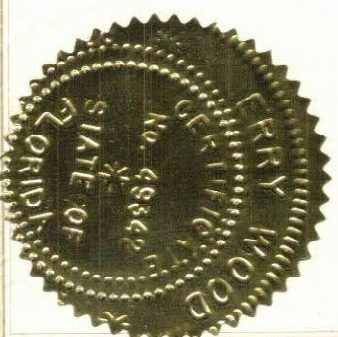
**November 26 and December 12 & 13, 2018**

And has Successfully Completed the Required Examination in Accordance with the Initial Training Requirements for Landfill Operators in Florida;

Or has attended for Continuing Education hours.

  
Jerry Wood, P.E./Instructor

Signed December 17, 2018



ATTACHMENT 7  
SOURCE-SEPARATED ORGANICS PROCESSING  
FACILITY REGISTRATION



## Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Rick Scott  
Governor

Carlos Lopez-Cantera  
Lt. Governor

Noah Valenstein  
Secretary

### Source-Separated Organics Processing Facility Registration Confirmation of Submission

**11/13/2018**

**Waste Registration Section**

**ANGELO'S AGGREGATE MATERIALS, LTD.**

**ENTERPRISE LF & RECYC (FKA SID LARKIN & SON, INC.)**

**41111 Enterprise Rd Dade City, FL 33525 1589**

**Dear ANGELO'S AGGREGATE MATERIALS, LTD.**

Your application for Registration of a Source-Separated Organics Processing Facility (SOPF) for ENTERPRISE LF & RECYC (FKA SID LARKIN & SON, INC.) (located at 41111 Enterprise Rd , Dade City) in Pasco County is complete. Your facility identification number (WACS ID) is 87895. This registration is valid until August 1, 2019. The receipt number for the registration fee you paid is 986102

You must comply with the requirements specified in Chapter 62-709, Florida Administrative Code (F.A.C.) in order to maintain qualification for the registration program. A summary of the operating requirements is attached.

If you have any questions or need further assistance, please contact Waste Registration Section at (850) 245-8707 or by e-mail at [Waste.Registration@dep.state.fl.us](mailto:Waste.Registration@dep.state.fl.us).

Please retain a copy of this confirmation for your records.

Sincerely,

Waste Registration Section

cc: Melissa Madden, Steven Tafuni; Southwest District, Southwest District



# Florida Department of Environmental Protection

Solid Waste Section, Mail Station 4565  
2600 Blair Stone Road, Tallahassee, Florida 32399-2400

DEP Form # 62-709.901(3)	
Appl for Reg. and Ann Rep for a YT Trans	
Form Title <u>Station or SW Organic Recycling Facility</u>	
Effective Date <u>February 15, 2010</u>	
DEP Facility ID No.	<u>87895</u>
(Filled in by DEP)	
DEP WACS ID No:	<u>87895</u>
(Filled in by DEP)	
This form is adopted by reference in subsection 62-709.901(3), F.A.C.	

## Application for Registration and Annual Report for a Yard Trash Transfer Station or a Solid Waste Organics Recycling Facility

### PART A - GENERAL INFORMATION

1. Type of Application: New ☐ Renewal (due July 1) ☒ Annual report only for facility operating under permit: ☐
2. Type of Facility: Yard trash recycling ☒ Manure blending ☐  
Yard trash transfer station ☐ Vegetative, animal byproducts or manure composting ☐
3. Type of Waste Processed: Yard trash ☒ Manure ☐ Animal byproducts ☐ Pre-consumer Vegetative ☐  
Vegetative (could/did come into contact with animal products or byproducts or end user) ☐
4. Facility Name: ENTERPRISE LF & RECYC (FKA SID LARKIN & SON, INC.)
5. Registrant Name (or Permittee if annual report only): ENTERPRISE LF & RECYC (FKA SID LARKIN & SON, INC.)
6. Federal Employer Identification Number: 593448428
7. Mailing Address: 855 28th St S  
City Saint Petersburg State FL Zip 33712 1916  
Street Mailing Address (if different): \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_
8. Facility Location - Street Address or Property Number: 41111 Enterprise Rd  
City Dade City County Pasco
9. Contact Person: ARNOLD,JOHN Telephone: (813) 477-1719

### PART B - ADDITIONAL INFORMATION REQUIRED FOR REGISTRATION APPLICATION

10. Records required by Rule 62-709.320, F.A.C., will be kept at the facility? Yes ☒ No ☐  
If no, please indicate where these records will be kept and made available upon Department request to review the records:  
\_\_\_\_\_
11. Does the registrant own the facility site? Yes ☒ No ☐  
**If you answered no, please attach evidence that the facility owner or operator has permission from the landowner to operate a yard trash transfer station or a solid waste organics recycling facility at this site.**
12. Has the organic recycling facility begun operations? Yes ☒ No ☐  
**If this facility was operating in the previous calendar year, the annual report in Part C must be completed.**
13. ~~Include a check or money order for the \$35.00 registration fee made payable to the Florida Department of Environmental Protection. Payment of \$35.00 for this registration was received via online transaction.~~

I affirm that I have read Rules 62-709.320, 62-709.330 and 62-709.350, F.A.C., and shall comply with the requirements specified in those rules. I also affirm that the information provided in the application is true, accurate, and correct to the best of my knowledge. I have attached all documents and/or authorizations that are required.

John P. Arnold, Project Manager

John P. Arnold

11/13/2018

Print Name and Title of Registrant or Authorized Agent

Signature

Date

Email address (if available): John.Phillip.Arnold@gmail.com

**PART C - ANNUAL REPORT**

2017

14. Calendar Year (January 1 through December 31) Covered by this Report:

15. Values used in this report are in (SELECT ONE):

Tons



Cubic Yards



16. **For Existing Facilities that have not reported this information in the past**, Amount of

a. Unprocessed Material On Site at Beginning of Report Year:

0

b. Processed Material On Site at Beginning of Report Year (total):

0

17. Total Quantity of Material Received During Report Year:

12029.00

18. Total Quantity of Material Lost Due to Processing (e.g. grinding, drying, shrinkage, fires, etc.) During Report Year:

0

19. Total Quantity of Material Removed from Site for:

a. Use (e.g., landfill cover, fuel, mulch, compost, etc.):

12029.00

b. Disposal:

0

c. Other (transfer stations)

0

20. Total Quantity On Site at End of Report Year of:

a. Unprocessed Material:

0

b. Processed Material:

0

Note that the total sum of items 16 a and b plus 17 must equal to sum of items 18, plus 19 a, b and c, plus 20 a and b.

Total of items 16 and 17

12029.00

Total of Items 18, 19 and 20

12029.00

I affirm that the information provided in the annual report is true, accurate, and correct to the best of my knowledge.

John P. Arnold, Project Manager

*John P. Arnold*

11/13/2018

Print Name and Title of Registrant/Permittee or  
Authorized Agent

Signature

Date

Email address (if available): John.Phillip.Arnold@gmail.com

**~~PART D - MAILING INSTRUCTIONS~~**

**This registration was completed and payment of \$35.00 (if applicable) was received via online transaction.**

**~~Remember to include the \$35.00 fee if this is also a registration application. Mail completed form to:~~**

~~Department of Environmental Protection  
Solid Waste Section, MS 4565  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400~~

**ENGINEERING REPORT  
APPENDIX 3-B  
CONTINGENCY PLAN**



**ENTERPRISE ROAD CLASS III RECYCLING AND DISPOSAL FACILITY  
MINOR MODIFICATION PERMIT APPLICATION  
EMERGENCY AND CONTINGENCY OPERATIONS**

*Prepared for:*

**ANGELO'S AGGREGATE MATERIALS, LTD**  
855 28<sup>th</sup> Street South  
St. Petersburg, Florida 33712

Presented to:

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SOUTHWEST DISTRICT – SOLID WASTE DIVISION**  
13051 N. Telecom Parkway  
Temple Terrace, Florida 33637

Prepared by:

**LOCKLEAR & ASSOCIATES, INC.**  
4140 NW 37 Place, Suite A  
Gainesville, Florida 32606  
Certificate of Authorization #30066

~~JULY-OCTOBER~~ 2019

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## 1.0 EMERGENCY AND CONTINGENCY OPERATIONS

Angelo's Aggregate Materials, LTD (Applicant) is the Owner and Operator of the Enterprise Road Class III Recycling and Disposal Facility (Facility). Emergency conditions that may require a contingency operation plan may be created by a natural disaster (i.e., hurricane, tornado, and/or flooding), or fire. During emergency conditions normal waste acceptance procedures will continue, as feasible. The following procedures are to be initiated at the onset of a site emergency or major storm:

### 1.1 Communications

The designated emergency coordinator for the Facility is Mr. Fred Martinez, who may be reached at (352)-303-5618. Mr. Martinez is responsible for implementing emergency and contingency operations or designating an alternate coordinator.

As necessary the emergency coordinator will notify the appropriate emergency response personnel including:

- 911 - Fire/Police/Medical
- Dade City Fire Department - (352) 521-1492
- Dade City Police Department - (352) 521-1493
- Pasco County Hospital - Dade City - (352) 521-1100
- Florida Department of Environmental Protection - (813) 470-5700
- Pasco County - (727) 847-2411

If needed, the Operator will coordinate with emergency response and Pasco County personnel to notify neighbors and / or local government officials of emergency and contingency conditions that may affect them.

### 1.2 Major Storm or Disaster

1. All personnel understand their role in an emergency situation. At least one office employee will monitor the telephone. Radio or telephone communication is provided between the office and all operating areas of the landfill at all times.
2. All lightweight signs and equipment are to be collected and stored in a secure area.
3. All depressed and eroded areas are to be protected and the stormwater management system is to be inspected and maintained, as necessary.

4. Work is to begin in dry areas only when operations are resumed; waste materials are not to be deposited in standing water.

~~5. On-site emergency equipment locations, such as first aid and eye wash stations, are shown on Site Plan.~~

### 1.3 Fire

Although open burning is strictly prohibited, several types of fires could occur at the Facility including equipment fires, structure fires, waste fires, buffer zone fires, and receipt of hot loads. The Operator will provide a truck mounted water tank on-site for use in firefighting purposes. A stockpile of soil will be located near the active disposal area at all times for use in smothering waste fires and hot loads. During a fire, incoming trucks will be directed toward another area of the landfill so that a temporary active face can be established. Once the fire is extinguished, appropriate cover will be applied to the waste and operations will continue at the original active face. If the fire is extensive and a temporary active face cannot be established, incoming trucks will be redirected to another landfill.

For all fires, the Florida Department of Environmental Protection (FDEP) and Pasco County will be notified of the fire control plan being implemented if the fire cannot be extinguished or controlled within an hour. If the fire cannot be extinguished or controlled within 48 hours, the emergency coordinator will notify the local Fire Department listed above for assistance and will also notify Pasco County and any neighbors likely to be affected by the fire.

The Operator will take the following procedures if a fire occurs at the Facility:

#### 1.3.1 Equipment and Structural Fires

If the fire is minor in nature, site personnel will attempt to extinguish the fire using available on-site fire fighting equipment. The local Fire Department listed above will be summoned for assistance if site personnel and equipment cannot extinguish the fire.

#### 1.3.2 Waste Fires

Burning waste will be separated from the fill area and immediately covered with soil stockpiled near the disposal area. If necessary, water will also be applied to the burning waste using the on-site truck mounted water tank. The local Fire Department listed above will be summoned for assistance if the site personnel and equipment cannot extinguish the fire.

### 1.3.3 Buffer Zone Fires

The local Fire Department listed above will be immediately summoned to control and extinguish the fire. Available site personnel will create and maintain fire breaks between the active disposal area and the oncoming fire, and water down areas between the fire and the disposal area using the water tank. Available site personnel will assist the Fire Department as requested.

### 1.3.4 Hot Load Fires

If a hot load has not been unloaded, the driver will be directed to an isolated area of the Facility and site personnel will use available fire fighting equipment in an attempt to extinguish the load. If a hot load has been unloaded, the load will be spread out and separated from the active disposal area and immediately covered with soil stockpiled near the area. If necessary, water will also be applied to the load using the on-site water tank.

The local Fire Department listed above will be summoned for assistance if site personnel and equipment cannot extinguish the load.

### 1.3.5 Fire-Fighting Equipment

Fire extinguishers are located in locations indicated below.

- Office / Scale House
- Heavy Equipment Cabs

## 1.4 Spills

In the event of a spill, the site manager will determine whether on site personnel are capable of the cleanup. For example, if oil is spilled while performing vehicle maintenance, the site manager will direct landfill personnel to use a sorbent material to clean up the spill if spill occurred on an impervious surface. For spills on unpaved areas of the facility, the contaminated soil will be removed and placed in an appropriate container. All cleanup materials will be placed in a drum, stored in the shipping/storage container on-site for proper disposal. If unknown or hazardous chemicals are spilled, the site manager will contact the Department ((813)-470-5700) and Pasco County ((727)-847-2411) for direction.

## 1.5 Discovery of Hazardous Wastes

The operator will take the following steps if hazardous wastes are discovered at the active disposal area that may pose a serious health and safety risk to site personnel, the public, or the environment. Site personnel will establish a minimum 50-foot perimeter around the suspect waste using pylons and "Caution" and/or "Do Not Enter" tape. The driver and other customers will not be allowed closer than 50 feet to the suspect waste. Site personnel will immediately contact their supervisor.

The supervisor will contact a hazardous waste materials response team to coordinate cleanup and disposal of the hazardous materials.

#### 1.6 Equipment Failure

Arrangements with equipment rental companies will be maintained in order to provide for additional equipment during unanticipated breakdowns.

Equipment rental companies that may be used to obtain reserve equipment include the following:

Ring Power - Brooksville, Florida  
Contact: (352)-796-4978

Flagler Equipment - Tampa, Florida  
Contact: (813)-630-0077

#### 1.7 Landfill Shutdown

1. If the landfill should need to be shut down, the Department will be notified and haulers will be directed to another properly permitted facility.
2. Initial cover of six (6) inches will be placed on all waste exposed areas.

The stormwater management system will allow for disposal operations to continue during periods of inclement weather. Temporary berms, ditches, and grading are to be used to drain stormwater away from the active face of the landfill. The following actions should be taken at the landfill following a severe storm, hurricane, or other natural disaster:

- FDEP and Pasco County are to be notified by telephone immediately should any need for emergency and contingency operations arise. The phone number for the Department's Solid Waste Section is (813)-470-5700. The phone number for Pasco County is (727)-847-2411. The calls are to be confirmed by letter.
- Operational hours of the landfill may be extended at the landfill to meet the needs of the community. Pasco County and the Department will be consulted prior to changes in the hours of operation of the landfill.
- Necessary additional equipment, if required, will be rented. Arrangements are in place between the operator of the Landfill and equipment rental companies to facilitate this activity.
- If required, additional equipment operators and/or other personnel will be contracted. Arrangements are in place between the operator of the Landfill and temporary staffing companies to facilitate this activity.

- Appropriate public notices will be issued, including notification of the landfill's customer's by telephone and other media
- Contacts with local governmental bodies and local emergency agencies such as fire and rescue have been established in order to coordinate emergency activities. Fire and rescue personnel responsible for this district have visited the site in order to discuss emergency procedures.
- Site personnel may be trained in CPR and First Aid.

## **SECTION 4**

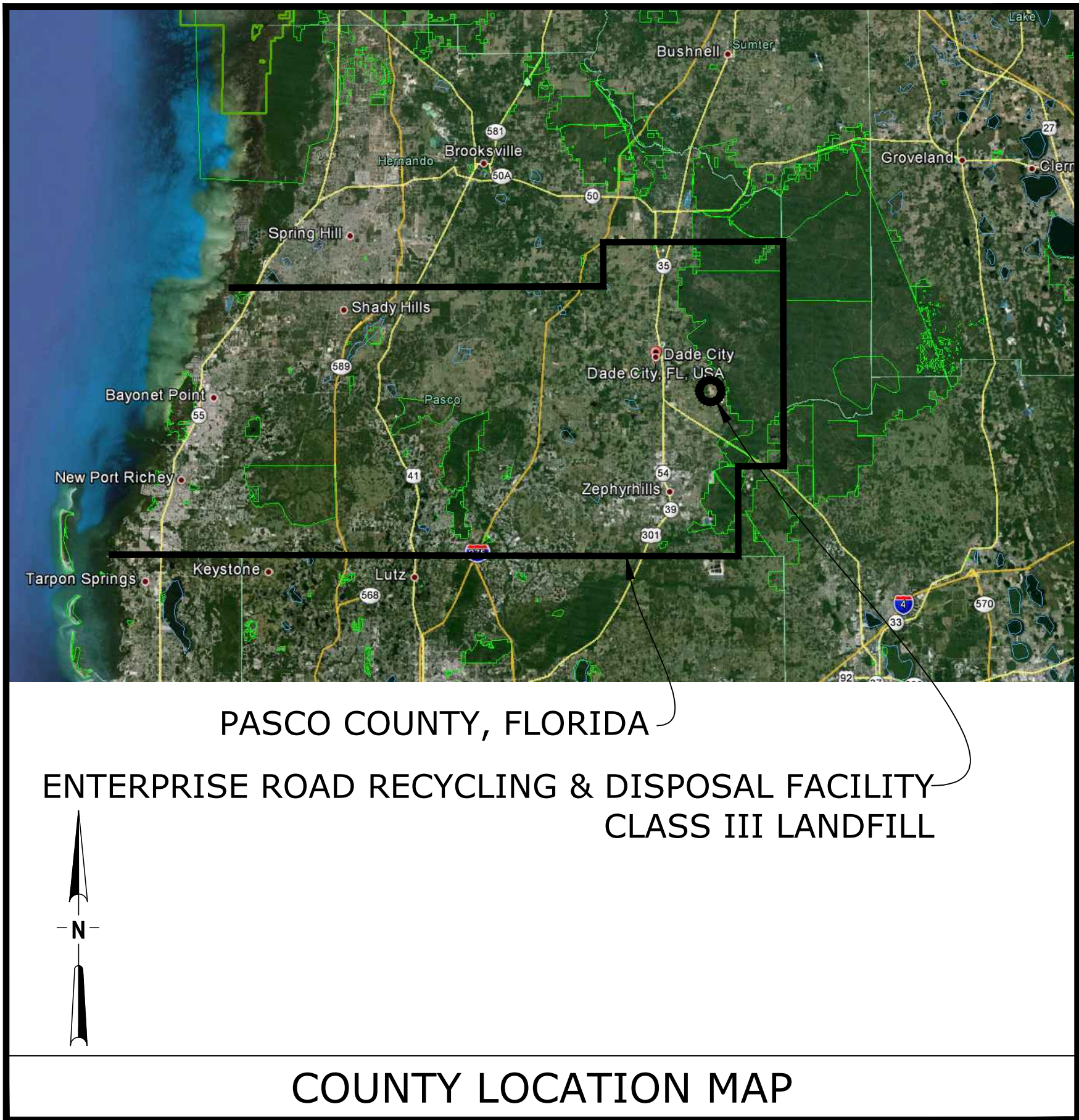
### **OPERATIONS PLAN MINOR MODIFICATION PERMIT PLAN SET**



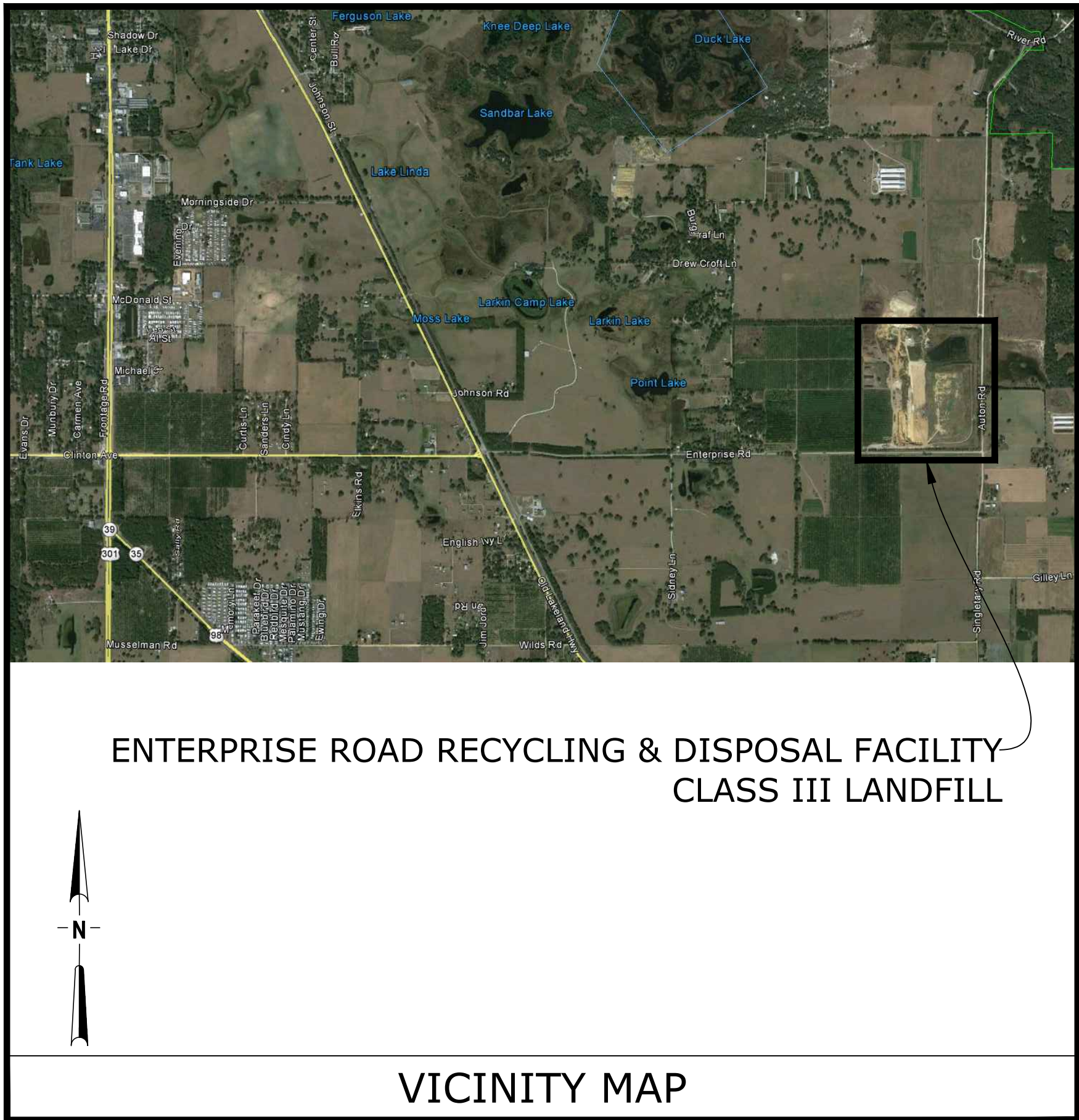
# ENTERPRISE ROAD CLASS III LANDFILL RECYCLING & DISPOSAL FACILITY OPERATIONS PLAN MINOR MODIFICATION

LOCATED:  
DADE CITY, PASCO COUNTY, FLORIDA

SUBMITTED TO:  
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Sheet List Table	
Sheet Number	Sheet Title
C0.00	COVER SHEET
C0.01	GENERAL NOTES AND ABBREVIATIONS
C0.02	AERIAL SITE PLAN
C0.03	SITE PLAN
C0.04	CELL FLOOR GRADING PLAN
C1.00	PHASING PLAN SEQUENCE NO. 1
C1.01	PHASING PLAN SEQUENCE NO. 1 SECTIONS
C1.10	PHASING PLAN SEQUENCE NO. 2
C1.11	PHASING PLAN SEQUENCE NO. 2 SECTIONS
C2.00	PHASING PLAN SEQUENCE NO. 3 OVERALL LANDFILL VERTICAL EXPANSION
C2.10	PHASING PLAN SEQ NO 3 OVERALL LANDFILL VERT EXPANSION SECT
C3.00	PHASING PLAN SEQUENCE NO. 4 CONCEPTUAL CLOSURE
C3.10	PHASING PLAN SEQUENCE NO. 4 CONCEPTUAL CLOSURE SECTIONS
C4.00	CLOSURE DETAILS
SHEET 1	TOPOGRAPHIC SURVEY (BY PICKETT SURVEYING & PHOTOGRAMMETRY)
SHEET 2	TOPOGRAPHIC SURVEY (BY PICKETT SURVEYING & PHOTOGRAMMETRY)



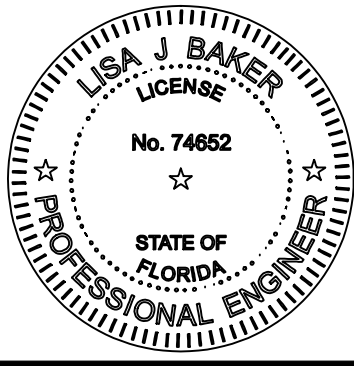
C:\Civil 3D Projects\02000-217-17\_03\CADD\Sheet\_List\CO.00.dwg PLOT DATE 7/9/2019 11:11 AM BY MAF

NO.	DATE	REVISION DESCRIPTION	BY
1	4/1/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB
2	5/15/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB



4140 NW 37th Place, Suite A  
Gainesville, Florida 32606  
Phone: 352.672.6867 Fax: 352.692.5390  
Certificate of Authorization No. 30066

PROJECT TITLE:  
PERMIT PLANS  
ENTERPRISE ROAD CLASS III  
RECYCLING & DISPOSAL FACILITY  
OPERATIONS PLAN MINOR MODIFICATION  
DADE CITY, PASCO COUNTY, FLORIDA



DESIGNED BY	LJB
DRAWN BY	MAF
CHECKED BY	JDL
APPROVED BY	LJB

SHEET TITLE:	COVER SHEET
PROJECT NO.:	02000-217-17
SCALE:	AS SHOWN
DATE:	JULY 2019
DRAWING:	C0.00

REVIEW ONLY-NOT FOR CONSTRUCTION



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GENERAL NOTES

1. ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929, UNLESS OTHERWISE NOTED.
2. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE PERMITTING AGENCY IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED AT THE SITE.
3. CONTRACTOR SHALL CERTIFY IN WRITING TO THE ENGINEER OF RECORD THE ACCURACY OF ALL SURVEY AND OTHER GRADING DATA PRIOR TO BEGINNING WORK.
4. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC. WHICH ARE WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE PLANS) AFFECTING THE WORK.
5. CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO PROTECT EXISTING PIPING, MONITORING WELLS/PIEZOMETERS FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR OR REPLACE PIPING, MONITORING WELLS/PIEZOMETERS DAMAGED DURING CONSTRUCTION WITH EQUIVALENT MATERIALS AND CONSTRUCTION METHODS AS APPROVED BY FACILITY OWNER AT NO ADDITIONAL COST TO THE OWNER.
6. FIELD CONDITIONS MAY NECESSITATE SLIGHT ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED CONSTRUCTION TO AVOID OBSTACLES, AS ORDERED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH EXISTING PASCO COUNTY DESIGN AND CONSTRUCTION STANDARDS UNLESS THOSE STANDARDS CONFLICT WITH THESE CONTRACT DOCUMENTS IN WHICH CASE THESE CONTRACT DOCUMENTS SHALL GOVERN. SUCH CONFLICTS SHALL BE BROUGHT TO THE PROFESSIONAL'S ATTENTION IMMEDIATELY.
8. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PREVAILING FEDERAL, STATE, LOCAL AND OTHER APPLICABLE REGULATIONS.
9. CONSTRUCTION MONUMENTS FOR VERTICAL AND HORIZONTAL CONTROL HAVE BEEN PROVIDED AT THE PROJECT SITE.
10. PRIOR TO BEGINNING EARTHWORK, THE CONTRACTOR SHALL PROVIDE STORMWATER AND EROSION CONTROL PLANS TO PREVENT PONDING AND CONTROL EROSION AND RUNOFF. NO PONDING OF WATER SHALL BE ALLOWED. THE CONTRACTOR SHALL USE WHATEVER MEANS NECESSARY TO PREVENT EROSION AND SHALL BE RESPONSIBLE FOR ALL WORK, INCLUDING PROVIDING EQUIPMENT, LABOR, FILL, ETC NECESSARY TO REMEDIATE AND/OR RESTORE ALL AREAS IMPACTED BY EROSION.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH THE OSHA EXCAVATION SAFETY STANDARDS AND TO ABIDE BY THEM.
12. THE CONTRACTOR SHALL PROVIDE ALL WARNING SIGNALS, SIGNS, LIGHTS, AND FLAG PERSON AS REQUIRED BY DOT IN THE "MANUAL ON TRAFFIC CONTROL & SAFE PRACTICES."
13. ALL PIPING SHALL HAVE MINIMUM COVER OF 24" UNLESS OTHERWISE NOTED.
14. WHERE IT IS NECESSARY TO DEFLECT PIPE EITHER HORIZONTALLY OR VERTICALLY, PIPE DEFLECTION SHALL NOT EXCEED 75% OF THE MANUFACTURER'S RECOMMENDED DEFLECTION ANGLE. MINIMUM PIPE RADIUS SHALL BE A MINIMUM OF 25% GREATER THAN THE MANUFACTURER'S RECOMMENDED MINIMUM RADIUS.
15. CONTAMINATED STORMWATER, DEWATERING DISCHARGE, LEACHATE, CONTAMINATED SOILS, OR EXCAVATED WASTE SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE LANDFILL OPERATIONS.
16. CONTRACTOR SHALL VERIFY ALL CLEARANCES PRIOR TO CONSTRUCTION.
17. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND DITCHES DURING ALL PHASES OF CONSTRUCTION AND SHALL UTILIZE WHATEVER MEANS NECESSARY TO MANAGE STORMWATER SUCH THAT IMPACT TO CONSTRUCTION IS MINIMIZED. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF DAMAGE DUE TO STORMWATER.
18. NO DISTURBANCE SHALL BE ALLOWED OUTSIDE OF THE AREAS SHOWN ON THE FINAL GRADING PLAN UNLESS APPROVED BY THE ENGINEER, OR SPECIFICALLY NOTED ON THE PLANS.
22. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ENVIRONMENTAL PROTECTION DURING THE LIFE OF THE CONTRACT. THE CONTRACTOR'S OPERATIONS SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS PERTAINING TO WATER, AIR, SOLID WASTE, HAZARDOUS WASTE MATERIALS, OILY SUBSTANCES, AND NOISE POLLUTION. THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENTATION CONTROL MEASURES AS NECESSARY TO COMPLY WITH THESE REGULATIONS FOR BOTH TEMPORARY AND PERMANENT CONSTRUCTION.
23. THE CONTRACTOR SHALL COMPLY WITH ALL TERMS, CONDITIONS, AND REQUIREMENTS OF ALL APPLICABLE PERMITS, INCLUDING FDEP PERMITS FOR THE SITE.
24. THE CONTRACTOR SHALL REPLACE ALL EXISTING PAVING, LANDFILL COVER MATERIAL, ACCESS ROADS, PIPES, STABILIZED EARTH, FENCES, SIGNS AND OTHER IMPROVEMENTS WITH THE SAME TYPE OF MATERIAL THAT WAS REMOVED OR DAMAGED DURING CONSTRUCTION, AS A RESULT OF CONSTRUCTION, OR AS DIRECTED BY THE ENGINEER WITHOUT INCREASE IN THE CONTRACT PRICE OR TIME.
25. THE CONTRACTOR SHALL BE AWARE THAT THERE MAY BE SOME UTILITY CONFLICTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ANY AND ALL EXISTING UTILITIES ON THIS PROJECT WITHOUT INCREASE IN THE CONTRACT PRICE OR TIME.
26. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY WHEN CONFLICTS BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED.
27. THE CONTRACTOR SHALL COMPLY WITH ALL TERMS, CONDITIONS, AND REQUIREMENTS OF ALL APPLICABLE PERMITS, INCLUDING FDEP AND WATER MANAGEMENT DISTRICT PERMITS FOR THE SITE.

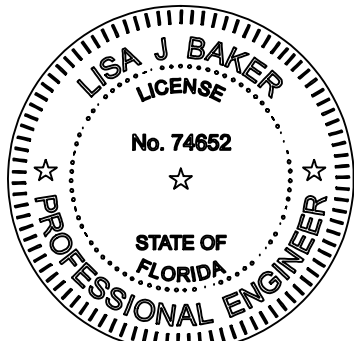
GRADING NOTES

1. ALL AREAS WITHIN AND AROUND THE LIMITS OF CONSTRUCTION SHALL BE MAINTAINED AS NEEDED TO CONTROL EROSION DURING THE LENGTH OF THE PROJECT.
2. FILL ELEVATIONS SHALL BE SUCH THAT INTERMEDIATE AND FINAL COVER DESIGN ELEVATIONS SHALL BE ACHIEVED ON ALL SLOPES.



4140 NW 37th Place, Suite A  
Gainesville, Florida 32606  
Phone: 352.672.6867 Fax: 352.692.5390  
Certificate of Authorization No. 30066

PROJECT TITLE:  
PERMIT PLANS  
ENTERPRISE ROAD CLASS III  
RECYCLING & DISPOSAL FACILITY  
OPERATIONS PLAN MINOR MODIFICATION  
DADE CITY, PASCO COUNTY, FLORIDA



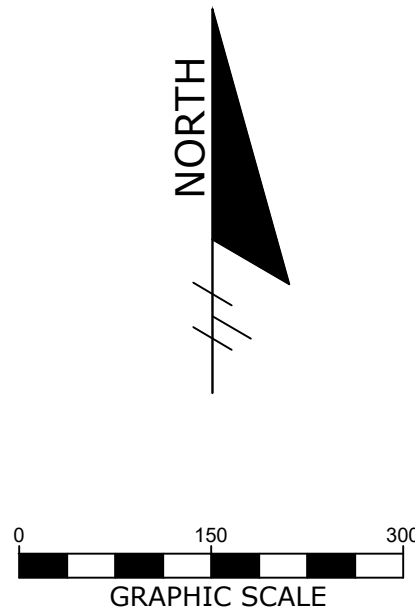
DESIGNED BY	LJB
DRAWN BY	MAF
CHECKED BY	JDL
APPROVED BY	LJB

SHEET TITLE:  
  
GENERAL NOTES AND ABBREVIATIONS

PROJECT NO.:	02000-217-17
SCALE:	AS SHOWN
DATE:	JULY 2019
DRAWING:	C0.01

REVIEW ONLY-NOT FOR CONSTRUCTION





LEGEND

- PERIMETER FENCE
- PROPERTY BOUNDARY
- LANDFILL FOOTPRINT (AT BUILD OUT)
- LANDFILL CELLS

NOTES:

- 1. PROPERTY BOUNDARY SURVEY CONDUCTED BY SIMMONS & BEALL, INC. 3-30-2001, PROVIDED BY ANGELO'S AGGREGATE MATERIALS.
- 2. CLASS III LANDFILL PERMITTED AND FUTURE CELL LAYOUT PER NOVEMBER 2006 ANGELO'S RECYCLED MATERIALS ENTERPRISE RECYCLING & DISPOSAL FACILITY (AS AMENDED FEBRUARY 2008 AND JANUARY 2010 BY JONES EDMUNDS, AS AMENDED MARCH 2013 BY KELNER ENGINEERING AND 2015 AND 2016 BY LOCKLEAR & ASSOCIATES).
- 3. 2017 ORTHOIMAGERY (AERIAL) IS BEING PROVIDED BY THE FDOT WEBSITE AND IS THE MOST RECENT AERIAL VERSION AVAILABLE FOR DOWNLOAD IN A MR.SID FILE FORMAT (SID).

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NO.	DATE	REVISION DESCRIPTION	BY
1	4/1/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB
2	5/15/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB



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OPERATIONS PLAN MINOR MODIFICATION  
DADE CITY, PASCO COUNTY, FLORIDA



DESIGNED BY	LJB
DRAWN BY	MAF
CHECKED BY	JDL
APPROVED BY	LJB

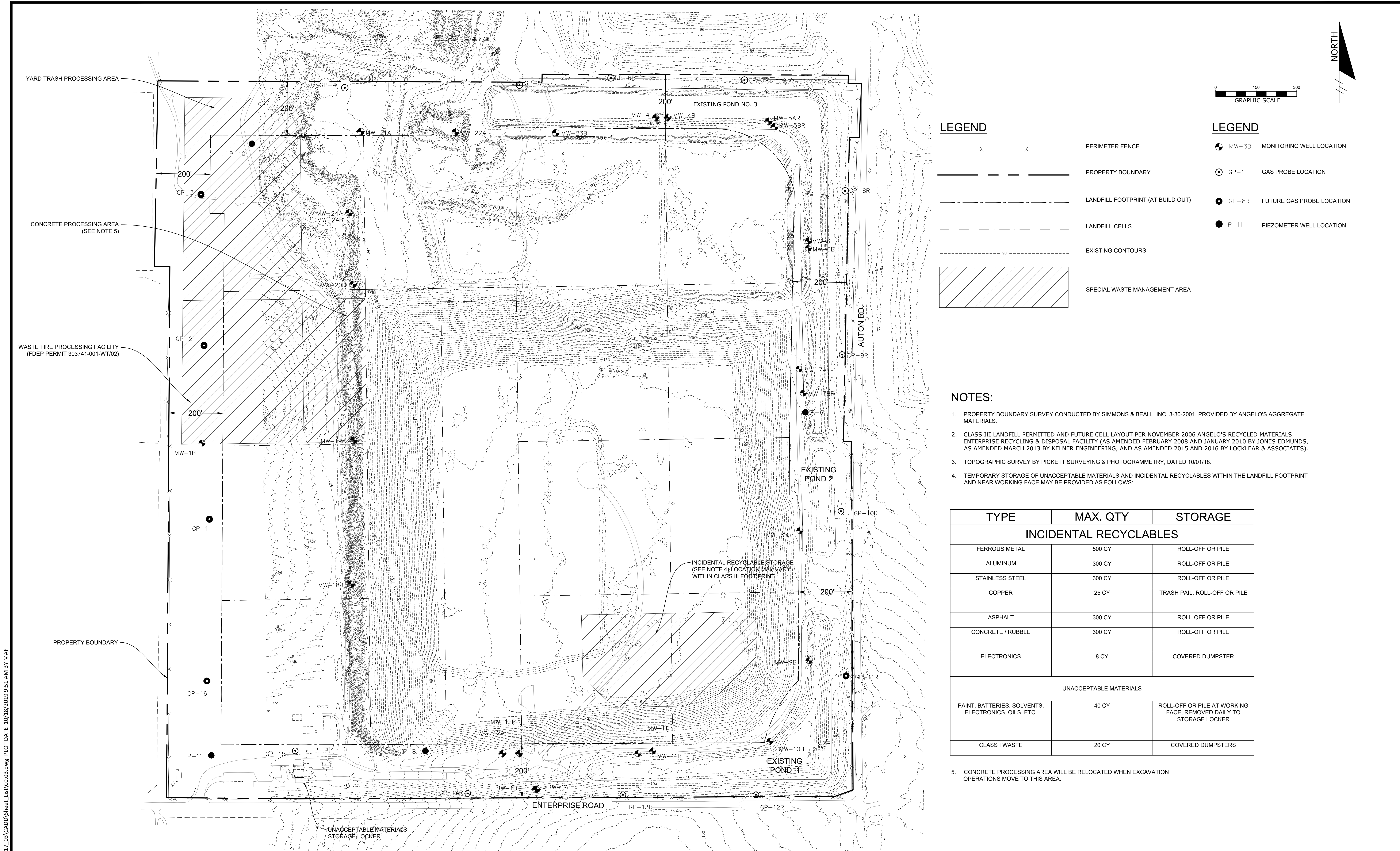
SHEET TITLE:

**AERIAL SITE PLAN**

PROJECT NO.:	02000-217-17
SCALE:	AS SHOWN
DATE:	JULY 2019
DRAWING:	C0.02

REVIEW ONLY-NOT FOR CONSTRUCTION





### LEGEND

- PERIMETER FENCE
- PROPERTY BOUNDARY
- LANDFILL FOOTPRINT (AT BUILD OUT)
- LANDFILL CELLS
- EXISTING CONTOURS
- SPECIAL WASTE MANAGEMENT AREA

### LEGEND

- MW-3B MONITORING WELL LOCATION
- GP-1 GAS PROBE LOCATION
- GP-8R FUTURE GAS PROBE LOCATION
- P-11 PIEZOMETER WELL LOCATION

- NOTES:**
- PROPERTY BOUNDARY SURVEY CONDUCTED BY SIMMONS & BEALL, INC. 3-30-2001, PROVIDED BY ANGELO'S AGGREGATE MATERIALS.
  - CLASS III LANDFILL PERMITTED AND FUTURE CELL LAYOUT PER NOVEMBER 2006 ANGELO'S RECYCLED MATERIALS ENTERPRISE RECYCLING & DISPOSAL FACILITY (AS AMENDED FEBRUARY 2008 AND JANUARY 2010 BY JONES EDMUNDS, AS AMENDED MARCH 2013 BY KELNER ENGINEERING, AND AS AMENDED 2015 AND 2016 BY LOCKLEAR & ASSOCIATES).
  - TOPOGRAPHIC SURVEY BY PICKETT SURVEYING & PHOTOGRAMMETRY, DATED 10/01/18.
  - TEMPORARY STORAGE OF UNACCEPTABLE MATERIALS AND INCIDENTAL RECYCLABLES WITHIN THE LANDFILL FOOTPRINT AND NEAR WORKING FACE MAY BE PROVIDED AS FOLLOWS:

TYPE	MAX. QTY	STORAGE
INCIDENTAL RECYCLABLES		
FERROUS METAL	500 CY	ROLL-OFF OR PILE
ALUMINUM	300 CY	ROLL-OFF OR PILE
STAINLESS STEEL	300 CY	ROLL-OFF OR PILE
COPPER	25 CY	TRASH PAIL, ROLL-OFF OR PILE
ASPHALT	300 CY	ROLL-OFF OR PILE
CONCRETE / RUBBLE	300 CY	ROLL-OFF OR PILE
ELECTRONICS	8 CY	COVERED DUMPSTER
UNACCEPTABLE MATERIALS		
PAINT, BATTERIES, SOLVENTS, ELECTRONICS, OILS, ETC.	40 CY	ROLL-OFF OR PILE AT WORKING FACE, REMOVED DAILY TO STORAGE LOCKER
CLASS I WASTE	20 CY	COVERED DUMPSTERS

- CONCRETE PROCESSING AREA WILL BE RELOCATED WHEN EXCAVATION OPERATIONS MOVE TO THIS AREA.

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NO.	DATE	REVISION DESCRIPTION	BY
1	4/1/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB
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3	8/2/2019	RAI 1	NLD

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DADE CITY, PASCO COUNTY, FLORIDA

DESIGNED BY	LJB
DRAWN BY	MAF
CHECKED BY	JDL
APPROVED BY	LJB

SHEET TITLE:  
**SITE PLAN**

PROJECT NO.:  
02000-217-17  
SCALE:  
AS SHOWN  
DATE:  
JULY 2019  
DRAWING:  
C0.03

REVIEW ONLY-NOT FOR CONSTRUCTION



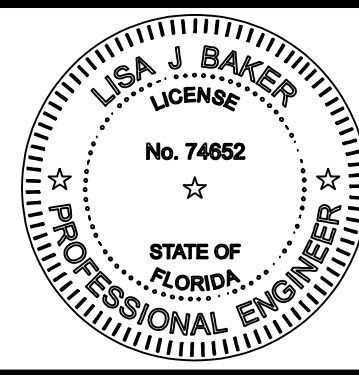
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NO.	DATE	REVISION DESCRIPTION	BY
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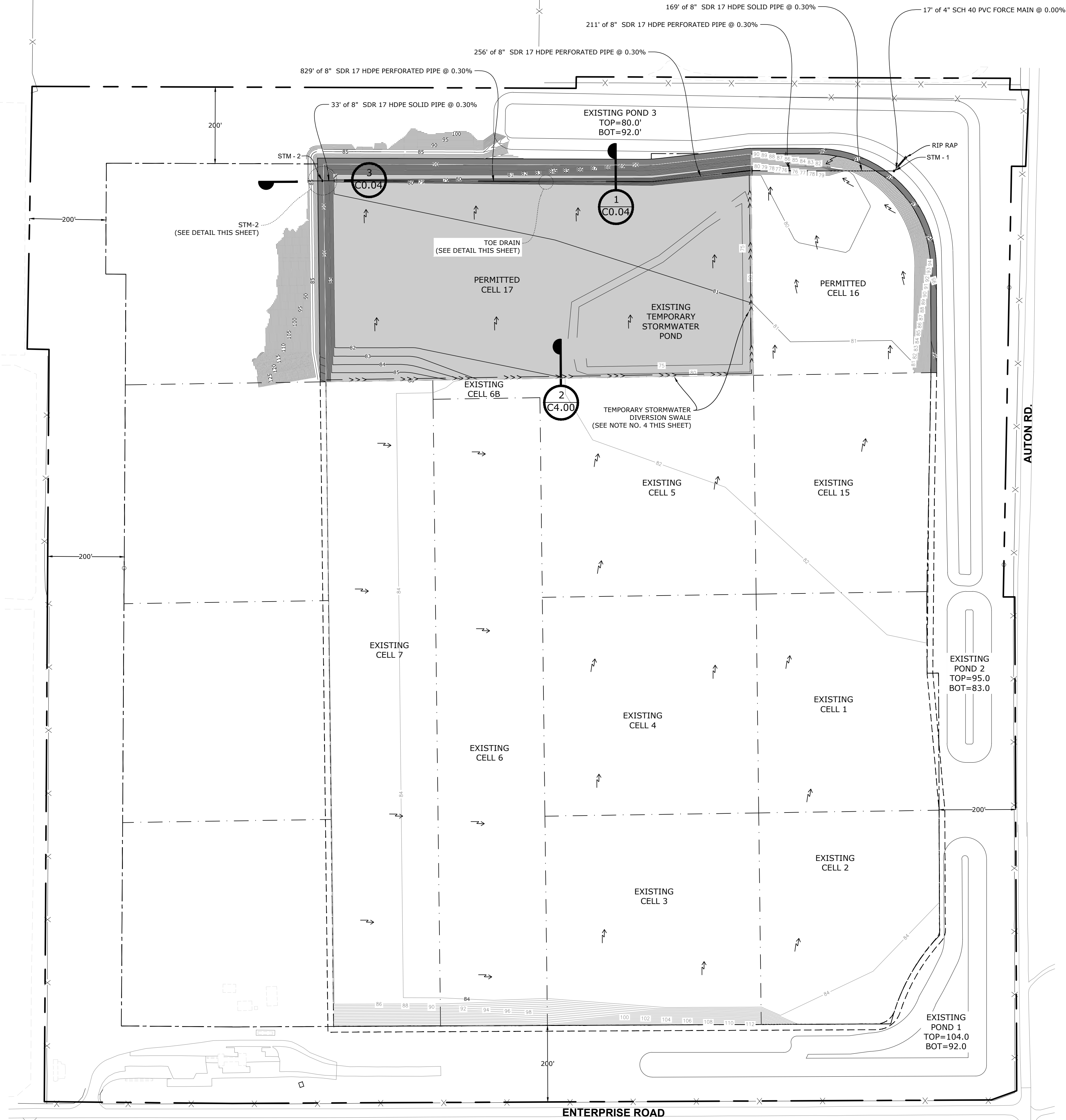


DESIGNED BY	LJB
DRAWN BY	MAF
CHECKED BY	JDL
APPROVED BY	LJB

SHEET TITLE:  
**CELL FLOOR GRADING PLAN**

PROJECT NO.:  
02000-217-17  
SCALE:  
AS SHOWN  
DATE:  
JULY 2019  
DRAWING:  
C0.04

REVIEW ONLY-NOT FOR CONSTRUCTION



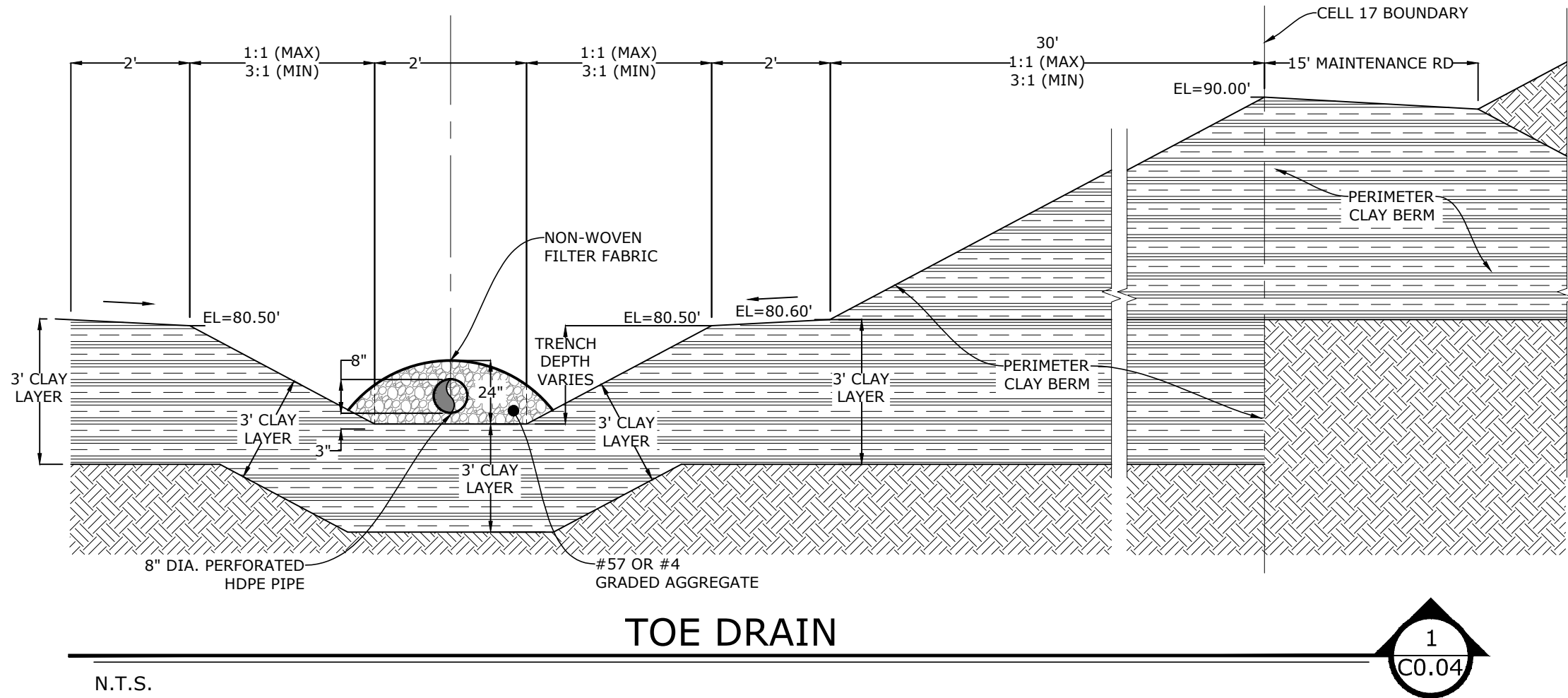
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STRUCTURE NAME:	DETAILS:	NORTHING	EASTING
STORM SEWER STM - 1	LEACHATE COLLECTION WETWELL (SEE DETAIL ON C4.10) FINISH GRADE RIM EL = 91.92' INV IN = 74.98' 8" SDR 17 HDPE SOLID PIPE SUMP EL = 72.00' INV OUT = 88.50' 4" SCH 40 PVC FORCE MAIN	1,454,654.80	613,925.38
STORM SEWER STM - 2	8" PVC CLEANOUT FINISH GRADE RIM EL = 89.95' INV OUT = 79.47' 8" SDR 17 HDPE SOLID PIPE	1,454,629.15	612,432.13

LEGEND

- PERIMETER FENCE
- PROPERTY BOUNDARY
- LANDFILL FOOTPRINT (AT BUILD OUT)
- LANDFILL CELLS
- EXISTING CLAY LAYER CONTOURS
- PROPOSED CLAY LAYER CONTOURS
- DIRECTIONAL FLOW ARROW
- FLOOR GRADING CLAY AREA (SHADED)

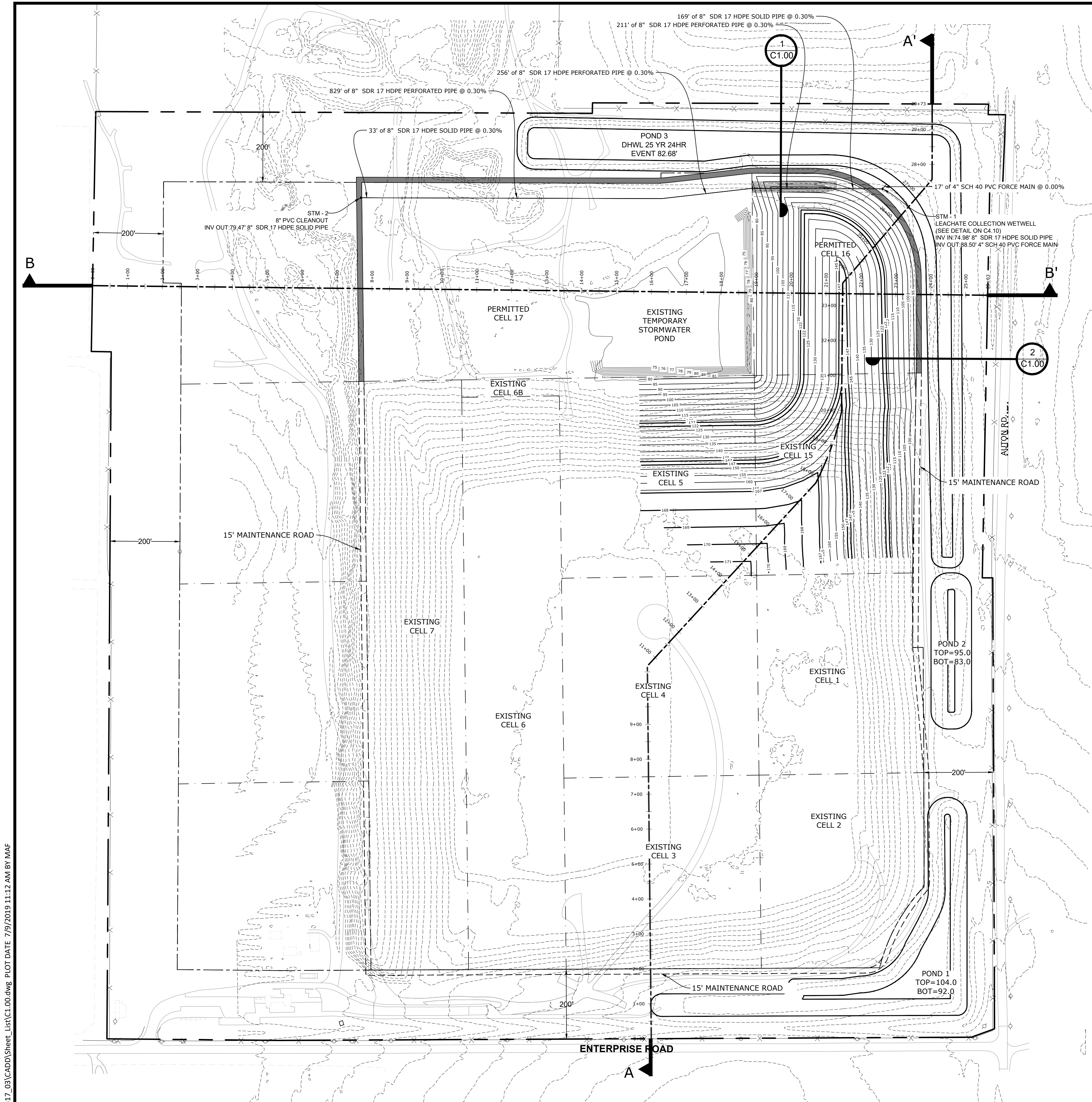
NOTES:

- PROPOSED CONTOURS REPRESENT THE TOP OF CLAY (3' BARRIER LAYER) ELEVATION.
- TOPOGRAPHIC SURVEY BY PICKETT SURVEYING & PHOTOGRAMMETRY, DATED 10/01/2018.
- CONSTRUCTION AND FILLING OF CELL 16 AND POND NO. 3 (PREVIOUSLY PERMITTED, CONSTRUCTION IN PROGRESS).
- TEMPORARY STORMWATER DIVERSION SWALE. CONTRACTOR SHALL GRADE TEMPORARY SWALE FOR POSITIVE DRAINAGE TOWARD EXISTING TEMPORARY STORMWATER POND. TEMPORARY SWALE SHALL BE REMOVED AND FILLED WITH CLAY ONCE INITIAL WASTE LIFT REACHES THE SWALE FROM THE NORTH.
- CONSTRUCTION AND FILLING OF CELL 17.
- TEMPORARY STORMWATER DIVERSION SWALE. CONTRACTOR SHALL GRADE TEMPORARY SWALE FOR POSITIVE DRAINAGE ALONG THE SOUTHERN CELL BOUNDARY OF CELL 17 AND RUN NORTH ALONG THE WESTERN BOUNDARY OF CELL 16. TEMPORARY SWALE SHALL BE REMOVED AND FILLED WITH CLAY ONCE INITIAL WASTE LIFT REACHES THE SWALE FROM THE NORTH.

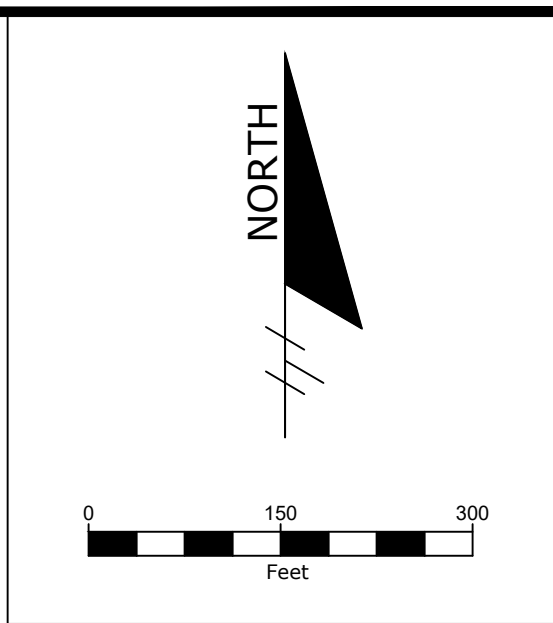




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STORM SEWER STRUCTURE TABLE			
STRUCTURE NAME:	DETAILS:	NORTHING	EASTING
STORM SEWER STM - 1	LEACHATE COLLECTION WETWELL (SEE DETAIL ON C4.10)		
	FINISH GRADE RIM EL = 91.92'		
	INV IN = 74.98' 8" SDR 17 HDPE SOLID PIPE SUMP EL = 72.00' INV OUT = 88.50' 4" SCH 40 PVC FORCE MAIN	1,454,654.80	613,925.38
STORM SEWER STM - 2	8" PVC CLEANOUT FINISH GRADE RIM EL = 89.95' INV OUT = 79.47' 8" SDR 17 HDPE SOLID PIPE	1,454,629.15	612,432.13

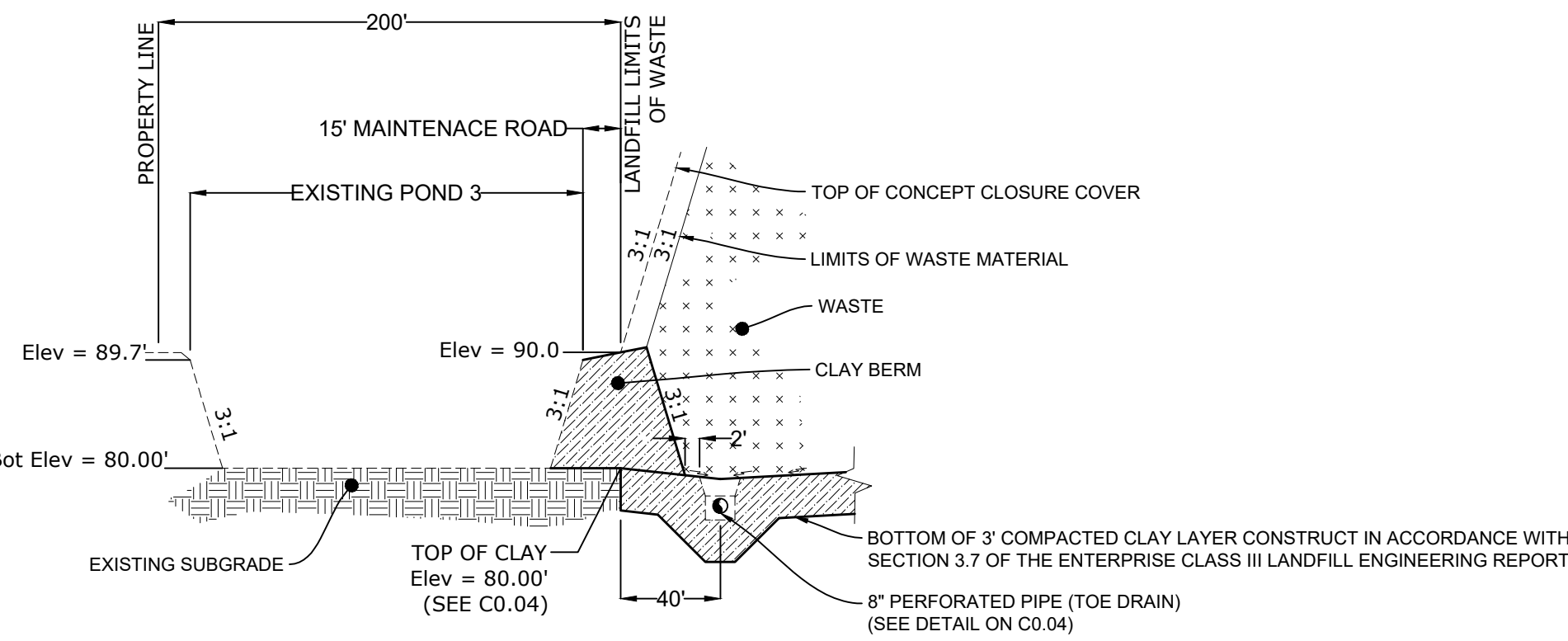


LEGEND

X	PERIMETER FENCE
---	PROPERTY BOUNDARY
---	LANDFILL FOOTPRINT (AT BUILD OUT)
---	LANDFILL CELLS
---	EXISTING CONTOURS
10+00	CROSS SECTION STATIONS

NOTES:

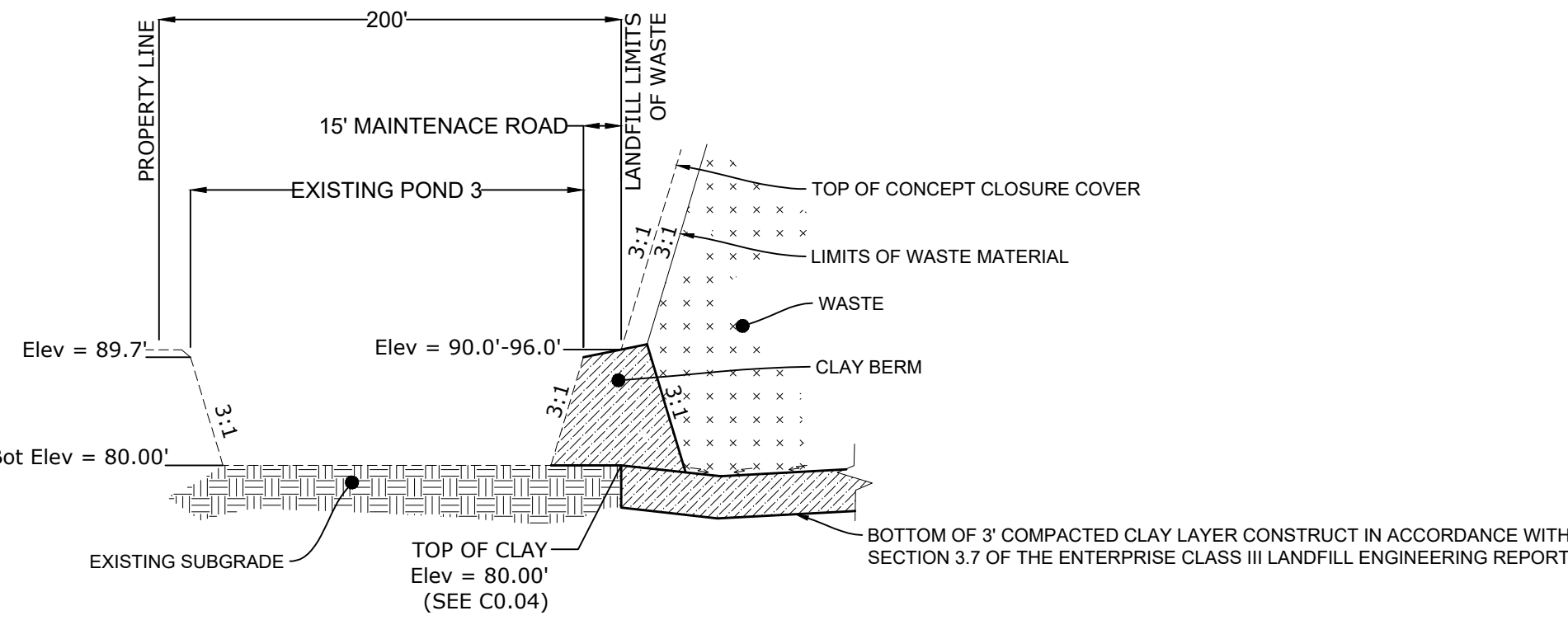
- CONTOURS REPRESENT TOP OF WASTE. FILL ELEVATIONS SHALL BE SUCH THAT FINAL COVER DESIGN ELEVATIONS SHALL BE ACHIEVED ON ALL SLOPES.
- TOPOGRAPHIC SURVEY BY PICKETT SURVEYING & PHOTOGRAMMETRY, DATED 10/01/18.



EXISTING NORTH BERM DETAIL CELL 16

1  
C1.00

SCALE: N.T.S.



EXISTING EAST BERM DETAIL CELL 16

2  
C1.00

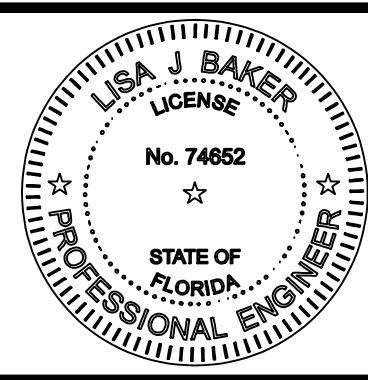
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NO.	DATE	REVISION DESCRIPTION	BY
1	4/1/2019	RAI 1 SUPPLEMENTAL INFORMATION	LIB
2	5/15/2019	RAI 1 SUPPLEMENTAL INFORMATION	LIB



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Certificate of Authorization No. 30066

PROJECT TITLE:  
**PERMIT PLANS**  
ENTERPRISE ROAD CLASS III  
RECYCLING & DISPOSAL FACILITY  
OPERATIONS PLAN MINOR MODIFICATION  
DADE CITY, PASCO COUNTY, FLORIDA



DESIGNED BY	LIB
DRAWN BY	MAF
CHECKED BY	JDL
APPROVED BY	LIB

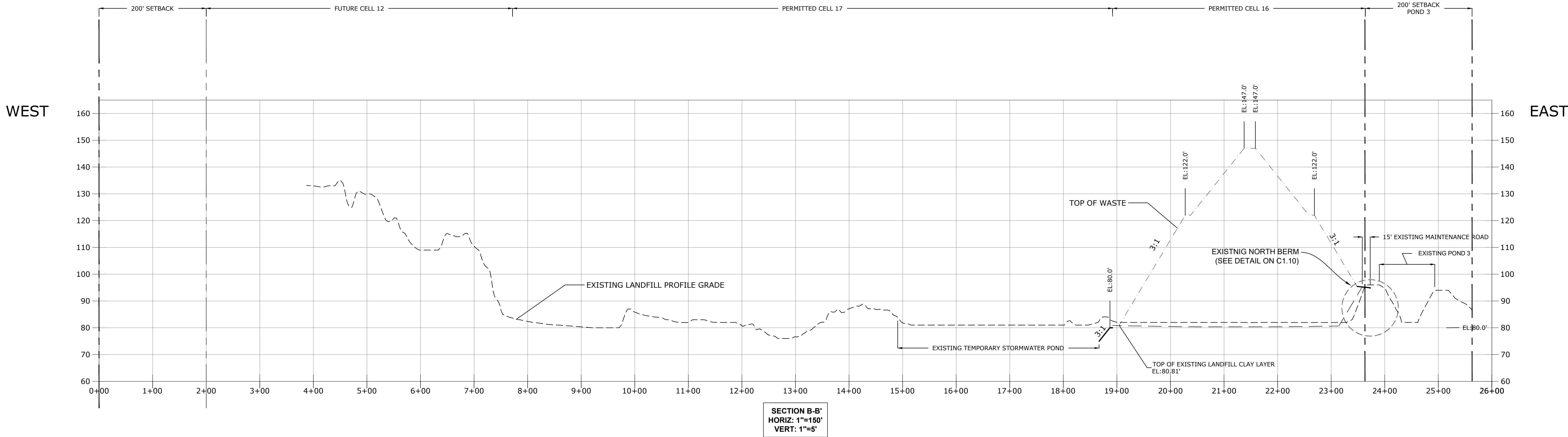
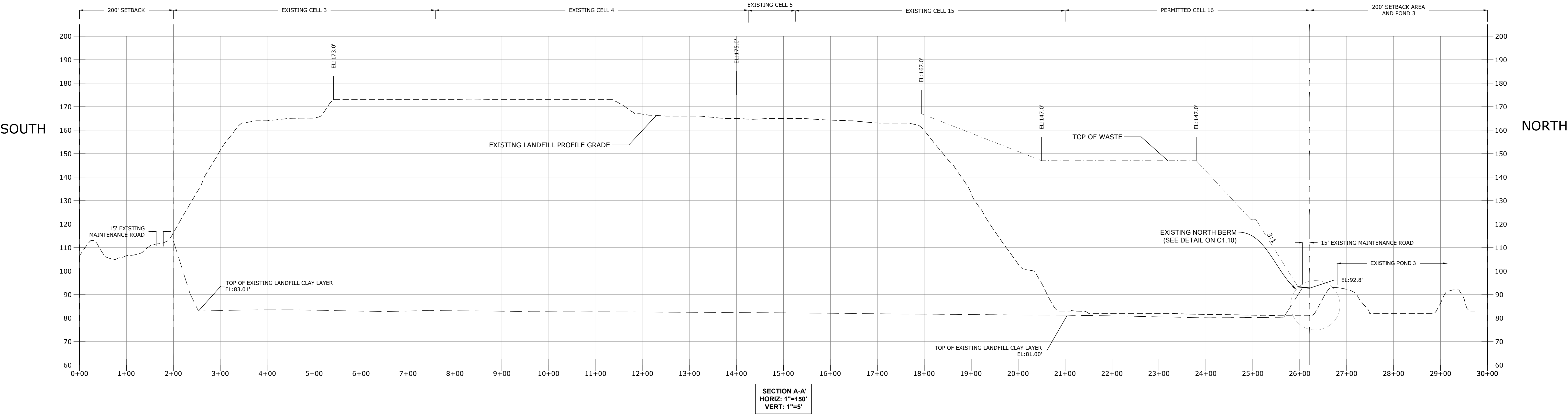
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PHASING PLAN SEQUENCE NO. 1

PROJECT NO.:	02000-217-17
SCALE:	AS SHOWN
DATE:	JULY 2019
DRAWING:	C1.00

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SCALES:  
HORIZONTAL 1"=100'  
VERTICAL 1"= 20'



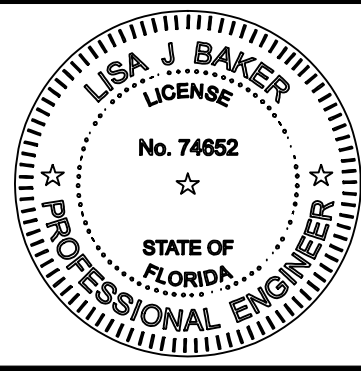
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NO.	DATE	REVISION DESCRIPTION	BY
1	4/1/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB
2	5/15/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB



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APPROVED BY	LJB

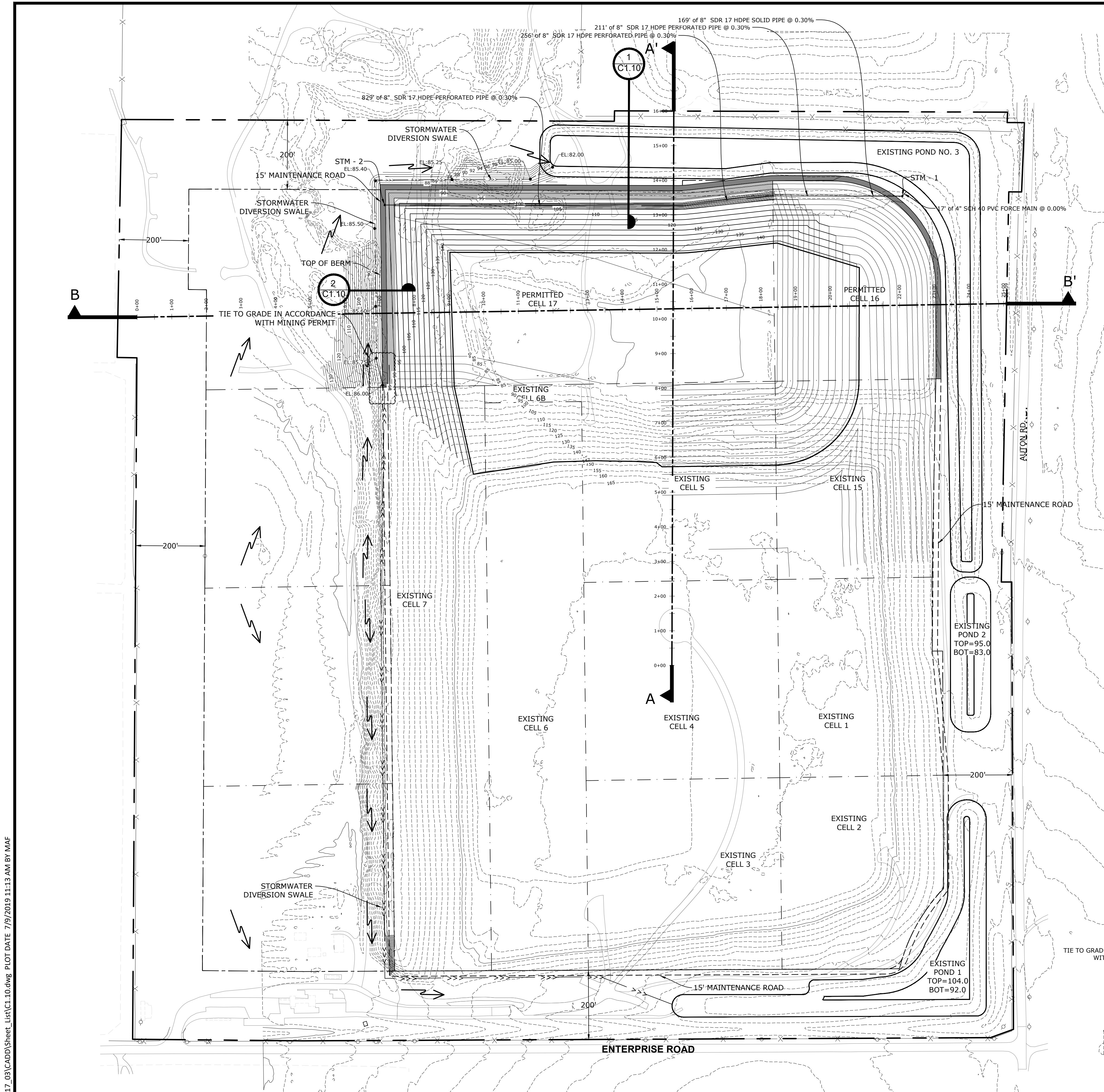
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PROJECT NO.:  
02000-217-17  
SCALE:  
AS SHOWN  
DATE:  
JULY 2019  
DRAWING:  
C1.01

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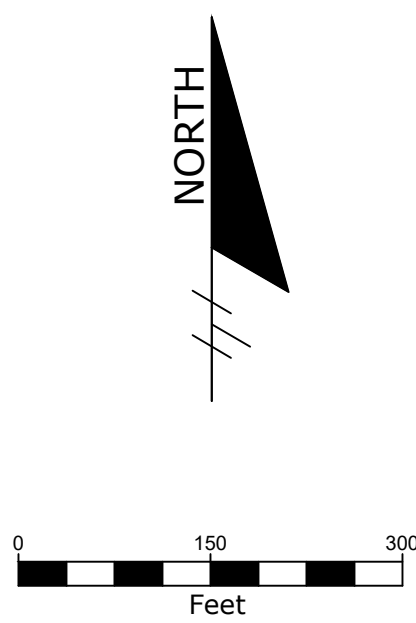


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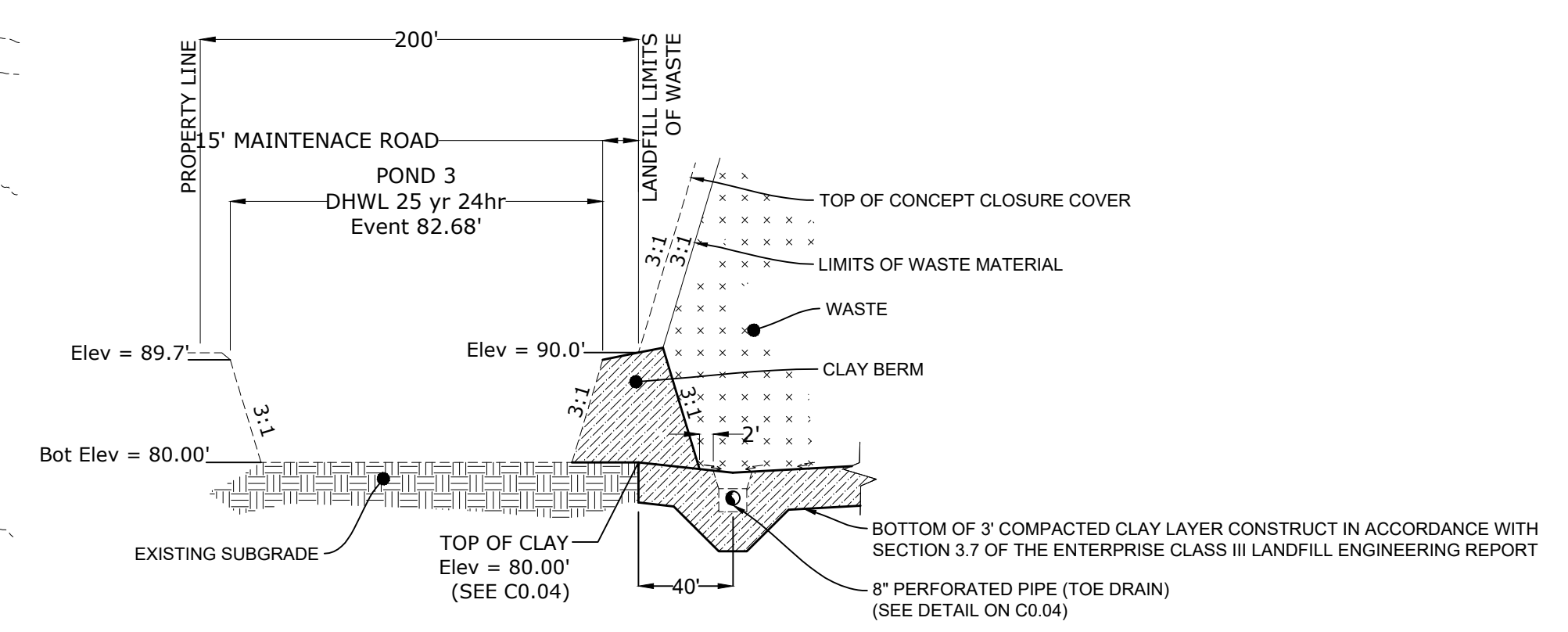
- PERIMETER FENCE
- PROPERTY BOUNDARY
- LANDFILL FOOTPRINT (AT BUILD OUT)
- LANDFILL CELLS
- EXISTING CONTOURS
- TEMPORARY STORMWATER DIVERSION SWALE
- DIRECTIONAL FLOW ARROW
- CROSS SECTION STATIONS



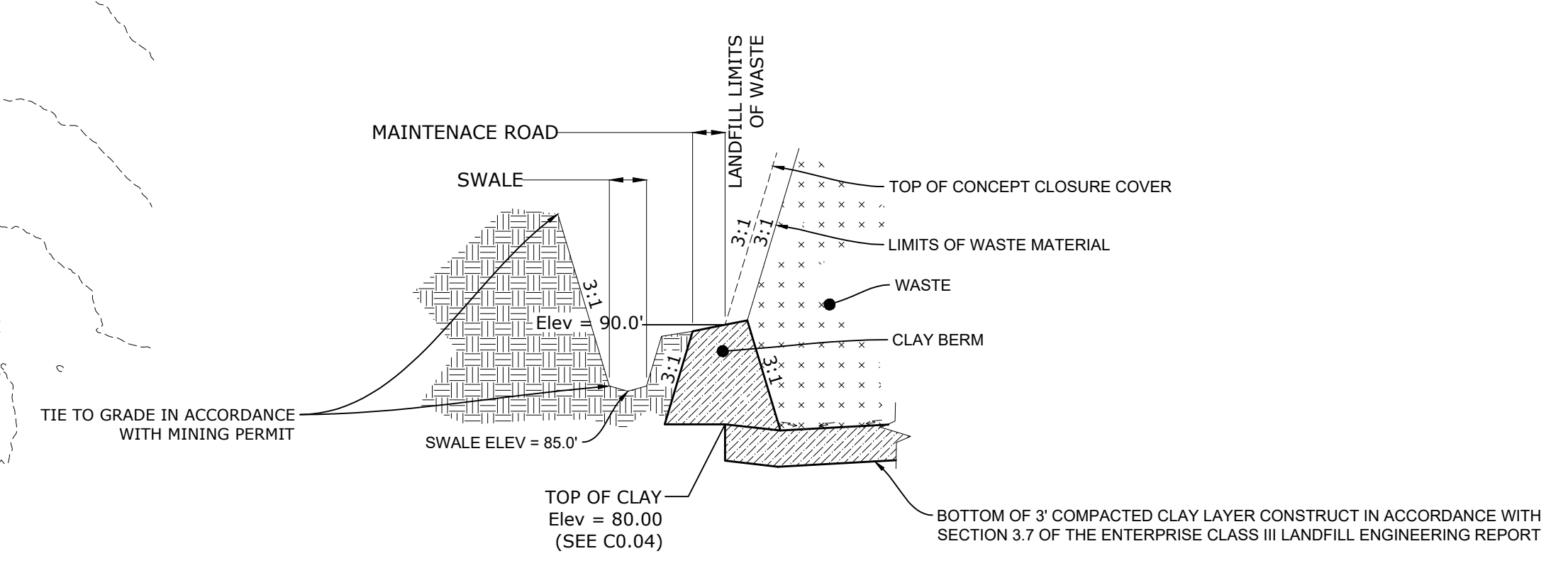
STORM SEWER STRUCTURE TABLE			
STRUCTURE NAME:	DETAILS:	NORTHING	EASTING
STORM SEWER STM - 1	LEACHATE COLLECTION WETWELL (SEE DETAIL ON C4.10) FINISH GRADE RIM EL = 91.92' INV IN = 74.98' 8" SDR 17 HDPE SOLID PIPE SUMP EL = 72.00' INV OUT = 88.50' 4" SCH 40 PVC FORCE MAIN	1,454,654.80	613,925.38
STORM SEWER STM - 2	8" PVC CLEANOUT FINISH GRADE RIM EL = 89.95' INV OUT = 79.47' 8" SDR 17 HDPE SOLID PIPE	1,454,629.15	612,432.13

NOTES:

- CONTOURS REPRESENT TOP OF WASTE. FILL ELEVATIONS SHALL BE SUCH THAT FINAL COVER DESIGN ELEVATIONS SHALL BE ACHIEVED ON ALL SLOPES.
- TOPOGRAPHIC SURVEY BY PICKETT SURVEYING & PHOTOGRAMMETRY, DATED 10/01/18.
- PRIOR TO WASTE BEING DISPOSED IN CELL 16, BACKFILL THE CELL 17 TEMPORARY DIVERSION SWALE WITH COMPACTED CLAY TO DRAIN TO NORTH.
- CELL 17 CLAY LAYER TO BE CONSTRUCTED IN ACCORDANCE WITH SECTION 3.7 OF ENTERPRISE CLASS III LANDFILL ENGINEERING REPORT.



1  
C1.10  
PROPOSED NORTH BERM DETAIL CELL 17  
SCALE: N.T.S.



2  
C1.10  
PROPOSED WEST BERM DETAIL CELL 17  
SCALE: N.T.S.

NO.	DATE	REVISION DESCRIPTION	BY
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2	5/15/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB

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DADE CITY, PASCO COUNTY, FLORIDA

DESIGNED BY	LJB
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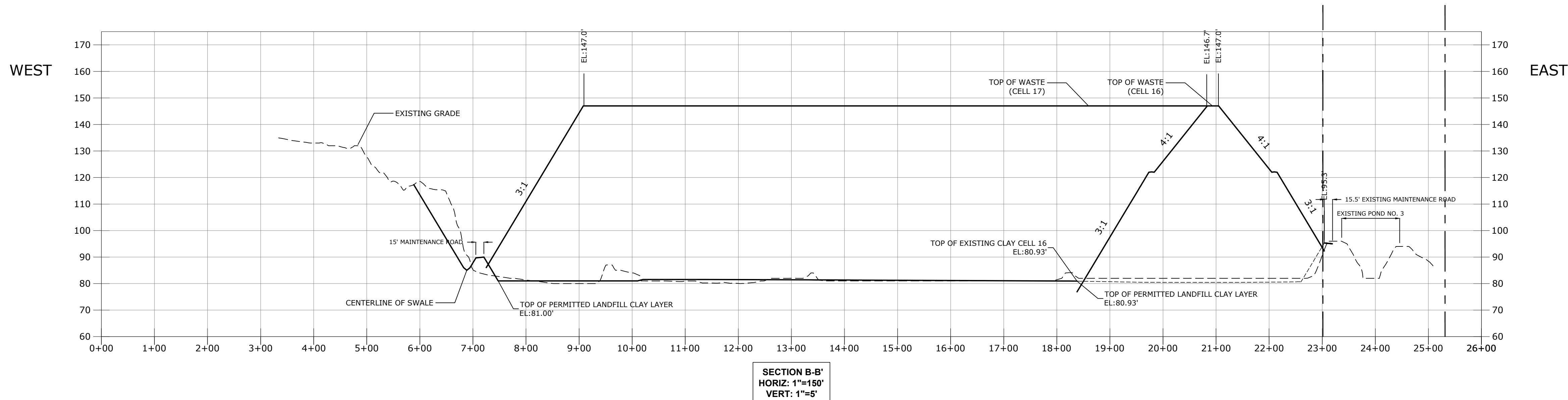
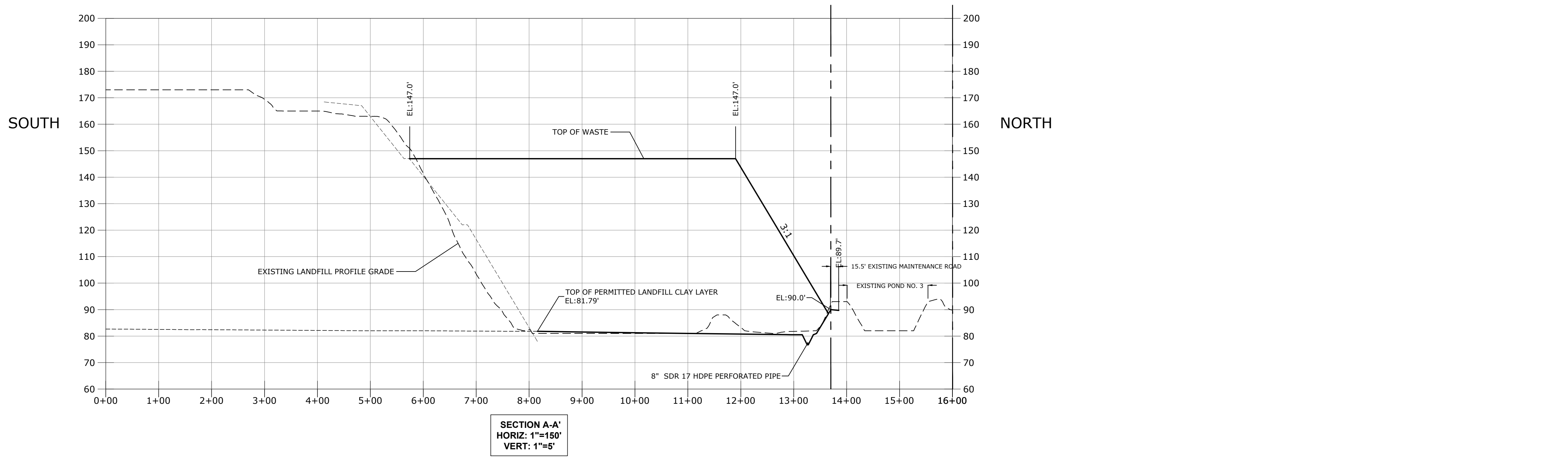
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PROJECT NO.:	02000-217-17
SCALE:	AS SHOWN
DATE:	JULY 2019
DRAWING:	C1.10

PROJECT NO.:	02000-217-17
SCALE:	AS SHOWN
DATE:	JULY 2019
DRAWING:	C1.10

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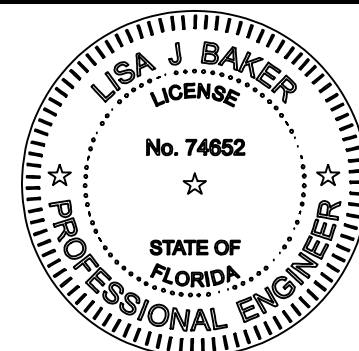


SCALES:  
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VERTICAL 1"= 20'



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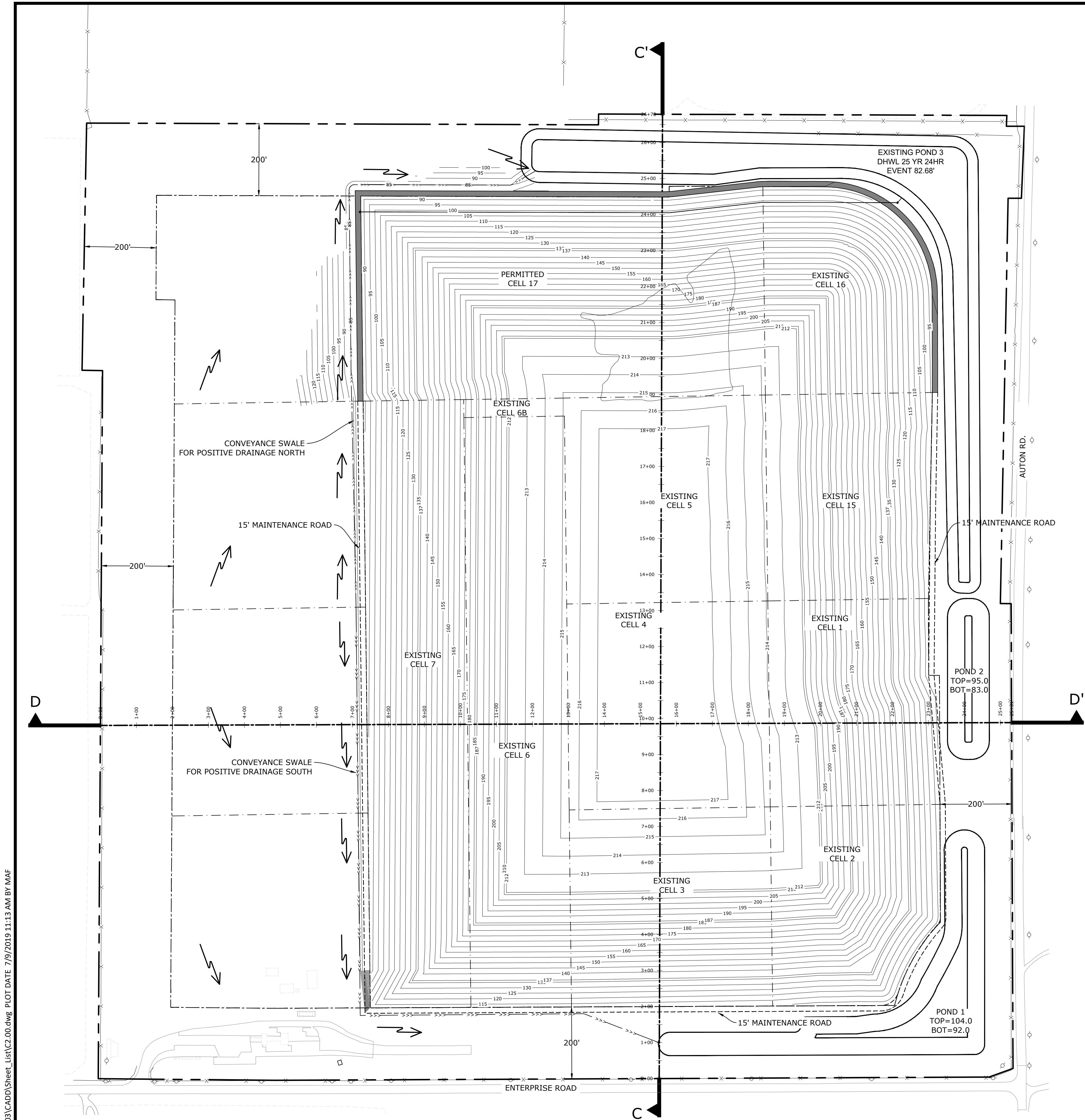
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**PHASING PLAN SEQUENCE NO. 2 SECTIONS**

PROJECT NO.:	02000-217-17
SCALE:	AS SHOWN
DATE:	JULY 2019
DRAWING:	C1.11

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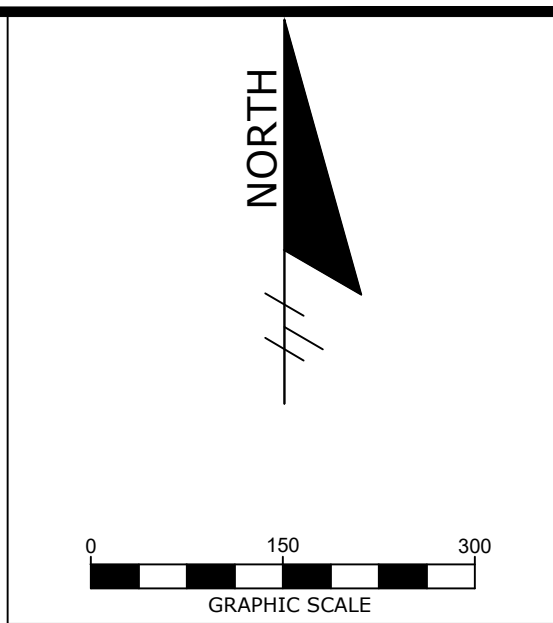


LEGEND

- PERIMETER FENCE
- PROPERTY BOUNDARY
- LANDFILL FOOTPRINT (AT BUILD OUT)
- LANDFILL CELLS
- EXISTING CONTOURS
- CONVEYANCE SWALE
- DIRECTIONAL FLOW ARROW
- CROSS SECTION STATIONS

NOTES:

- CONTOURS REPRESENT TOP OF WASTE. FILL ELEVATIONS SHALL BE SUCH THAT FINAL COVER DESIGN ELEVATIONS SHALL BE ACHIEVED ON ALL SLOPES
- PRIOR TO WASTE BEING DISPOSED IN PROPOSED CELLS, BACKFILL TEMPORARY DIVERSION SWALE WITH COMPACTED CLAY.
- LANDFILL FINAL COVER PER DETAIL 3, SHEET C4.00.
- TOPOGRAPHIC SURVEY BY PICKETT SURVEYING & PHOTOGRAMMETRY, DATED 10/01/18.
- FINAL COVER CONSTRUCTION TO BE IN ACCORDANCE WITH SECTION 7.1 OF THE ENTERPRISE RECYCLING & DISPOSAL FACILITY RECLAMATION & CLOSURE PLAN.
- THE FACILITY'S OVERALL STORMWATER MANAGEMENT SYSTEM IS GOVERNED BY THE MINING OPERATIONS AND ERP PERMITS. GRADES AND ELEVATION VARY BASED ONGOING MINING OPERATIONS AND TOPOGRAPHY. A DETAILED DESIGN THAT WILL TIE THE CONCEPTUAL CLOSURE PLAN INTO THE FACILITY'S STORMWATER MANAGEMENT SYSTEM WILL BE SUBMITTED AT THE TIME OF CLOSURE.

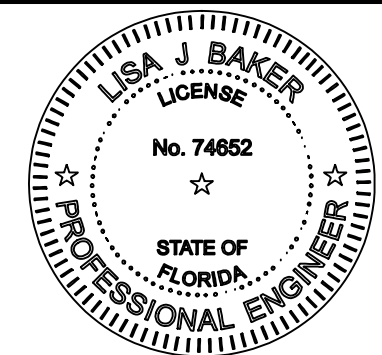


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OPERATIONS PLAN MINOR MODIFICATION  
DADE CITY, PASCO COUNTY, FLORIDA



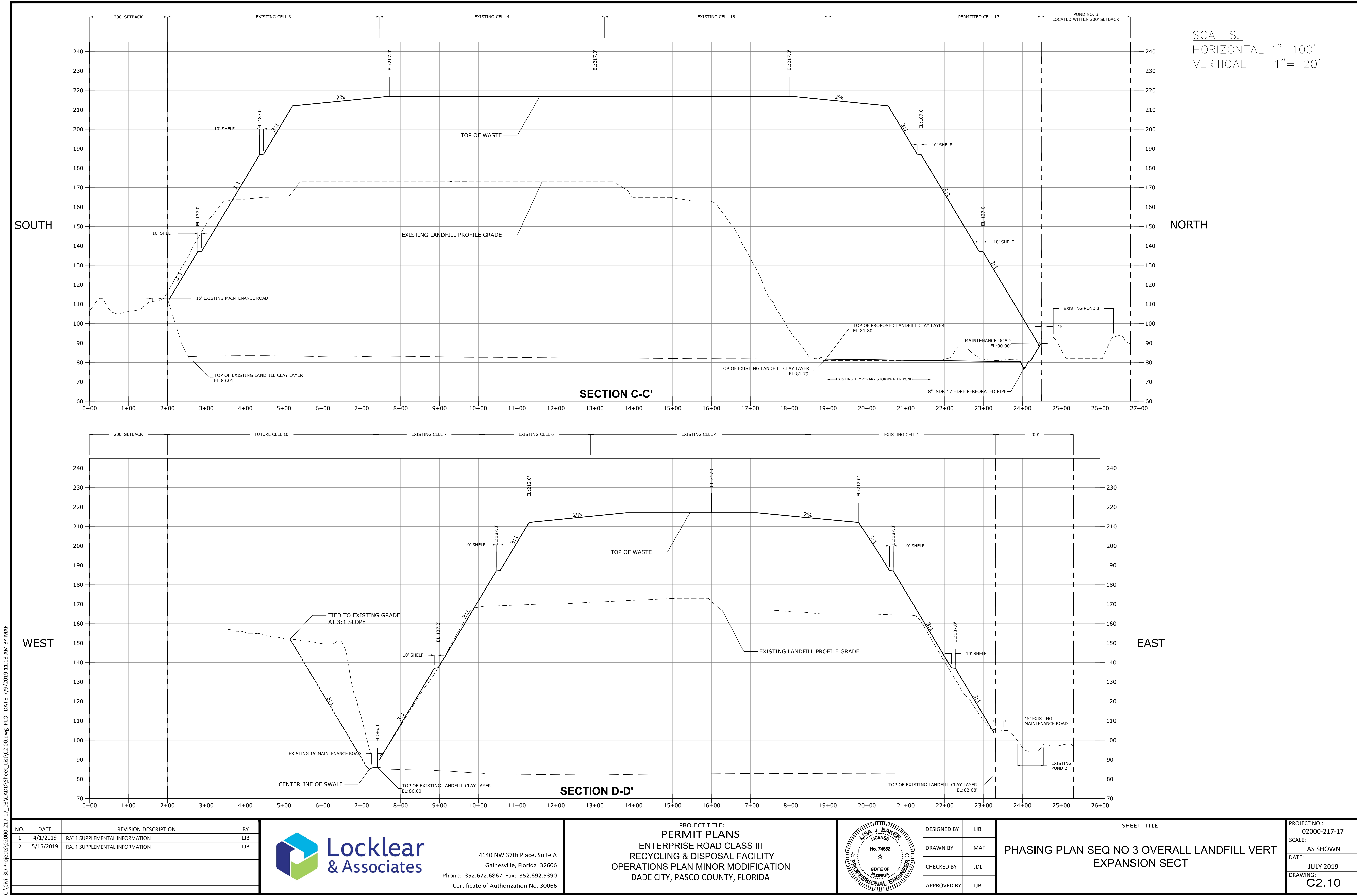
DESIGNED BY	LJB
DRAWN BY	MAF
CHECKED BY	JDL
APPROVED BY	LJB

SHEET TITLE:	PHASING PLAN SEQUENCE NO. 3 OVERALL LANDFILL VERTICAL EXPANSION
--------------	--

PROJECT NO.:	02000-217-17
SCALE:	AS SHOWN
DATE:	JULY 2019
DRAWING:	C2.00

REVIEW ONLY-NOT FOR CONSTRUCTION





SCALES:  
HORIZONTAL 1"=100'  
VERTICAL 1"= 20'

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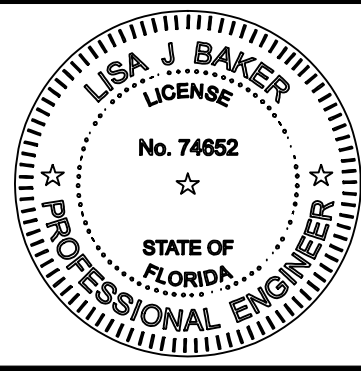
NO.	DATE	REVISION DESCRIPTION	BY
1	4/1/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB
2	5/15/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB



**Locklear  
& Associates**

4140 NW 37th Place, Suite A  
Gainesville, Florida 32606  
Phone: 352.672.6867 Fax: 352.692.5390  
Certificate of Authorization No. 30066

PROJECT TITLE:  
**PERMIT PLANS**  
ENTERPRISE ROAD CLASS III  
RECYCLING & DISPOSAL FACILITY  
OPERATIONS PLAN MINOR MODIFICATION  
DADE CITY, PASCO COUNTY, FLORIDA



DESIGNED BY	LJB
DRAWN BY	MAF
CHECKED BY	JDL
APPROVED BY	LJB

SHEET TITLE:  
**PHASING PLAN SEQ NO 3 OVERALL LANDFILL VERT  
EXPANSION SECT**

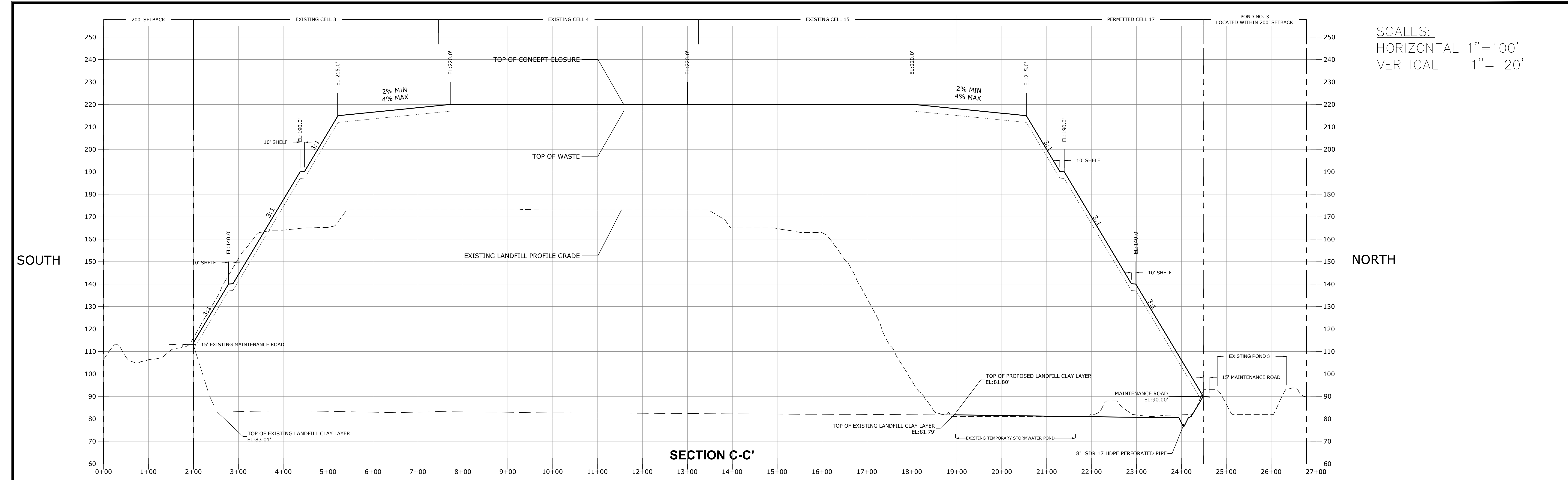
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SCALE:	AS SHOWN
DATE:	JULY 2019
DRAWING:	C2.10

**REVIEW ONLY-NOT FOR CONSTRUCTION**

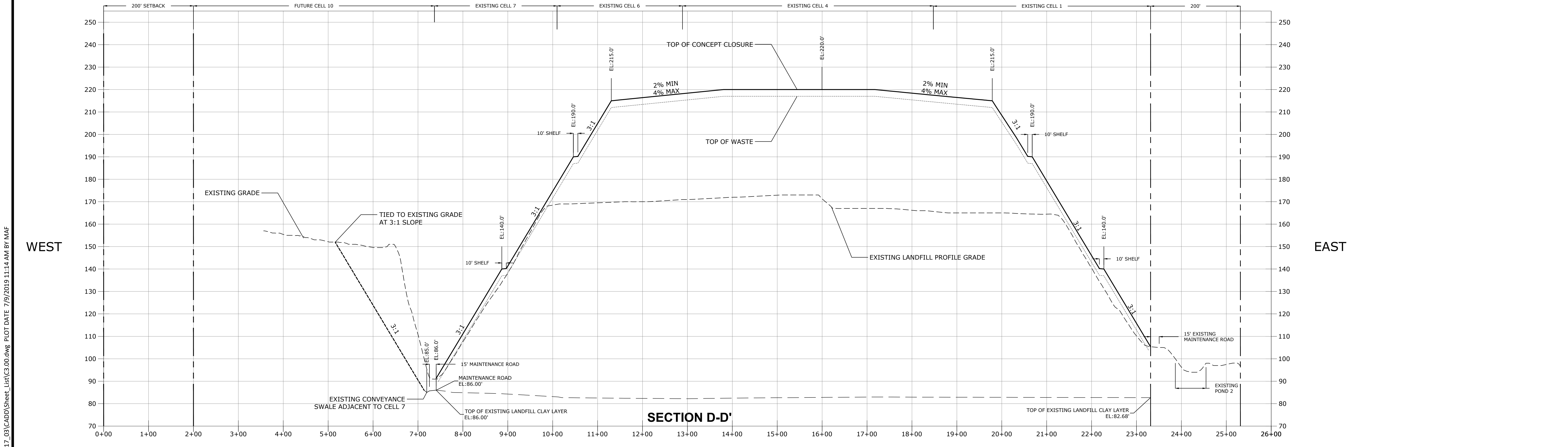








SCALES:  
HORIZONTAL 1"=100'  
VERTICAL 1"= 20'



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NO.	DATE	REVISION DESCRIPTION	BY
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2	5/15/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB

	4140 NW 37th Place, Suite A Gainesville, Florida 32606 Phone: 352.672.6867 Fax: 352.692.5390 Certificate of Authorization No. 30066
---	--

PROJECT TITLE: PERMIT PLANS ENTERPRISE ROAD CLASS III RECYCLING & DISPOSAL FACILITY OPERATIONS PLAN MINOR MODIFICATION DADE CITY, PASCO COUNTY, FLORIDA	
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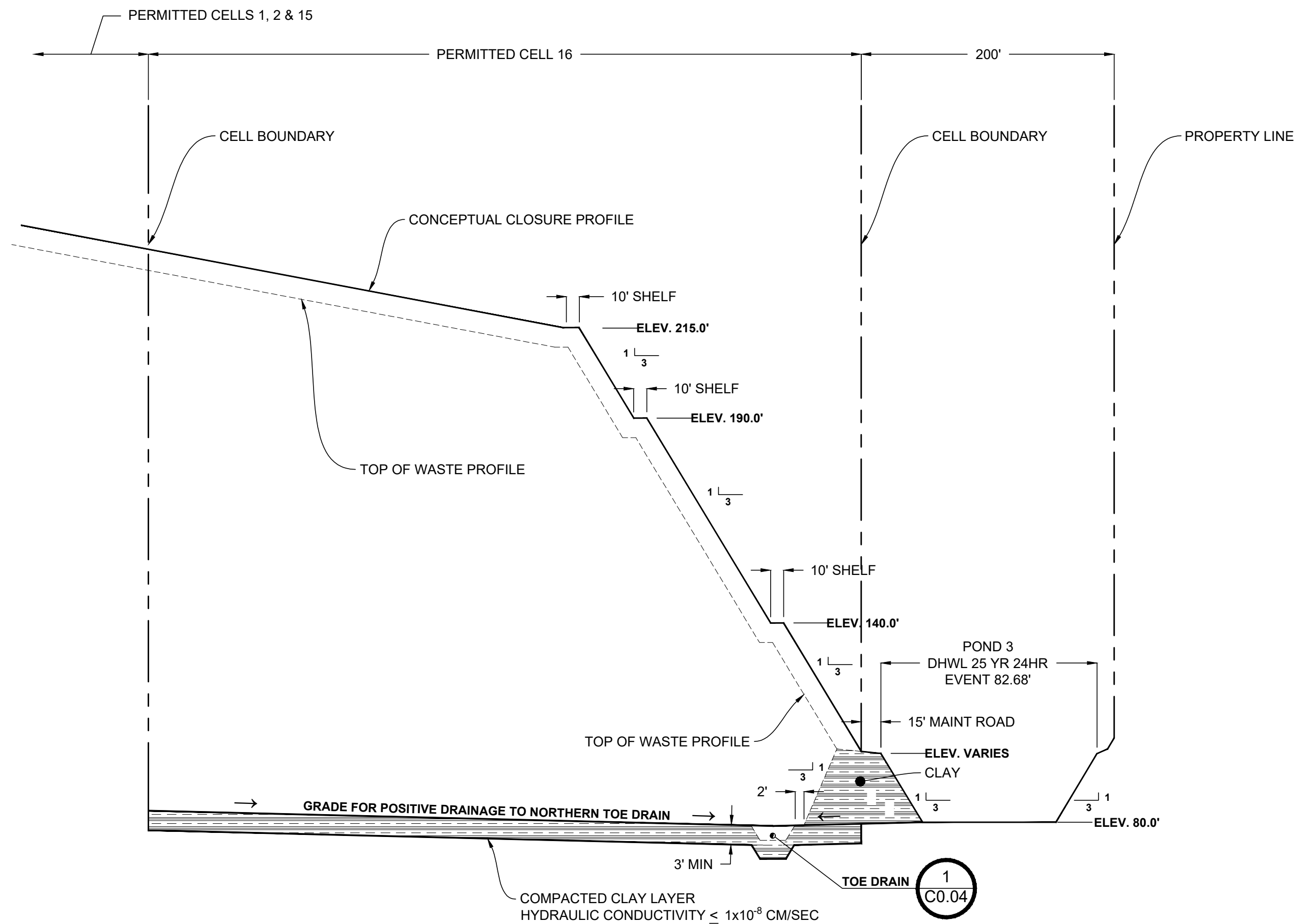
	DESIGNED BY LJB DRAWN BY MAF CHECKED BY JDL APPROVED BY LJB
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SHEET TITLE: PHASING PLAN SEQUENCE NO. 4 CONCEPTUAL CLOSURE SECTIONS	
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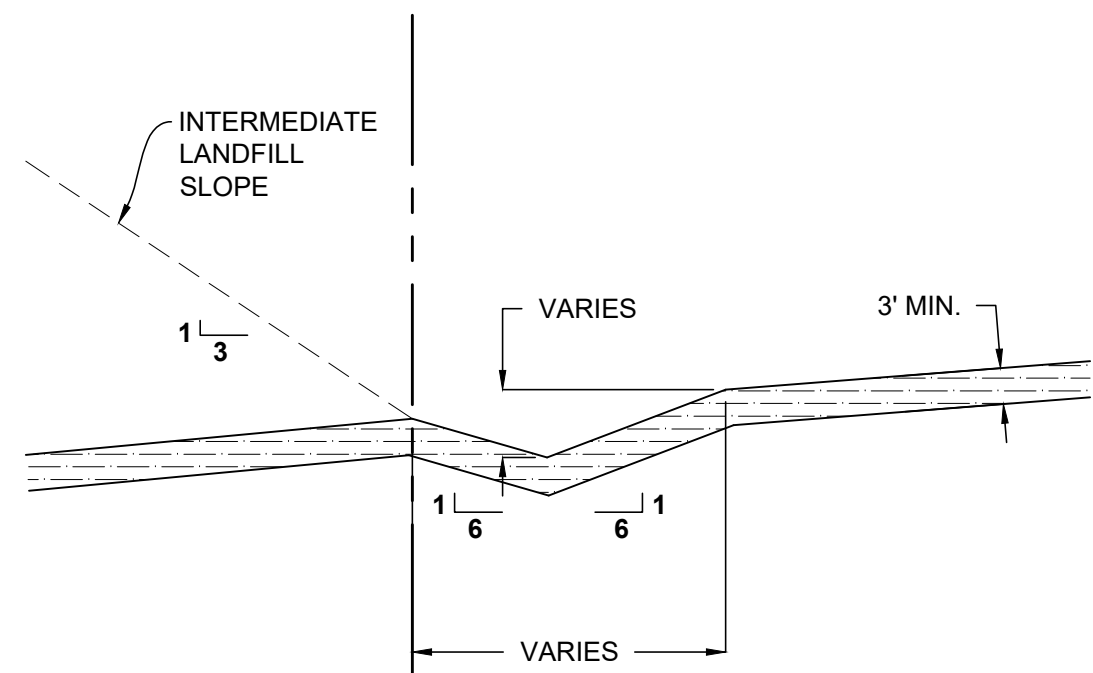
PROJECT NO.: 02000-217-17 SCALE: AS SHOWN DATE: JULY 2019 DRAWING: C3.10
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REVIEW ONLY-NOT FOR CONSTRUCTION





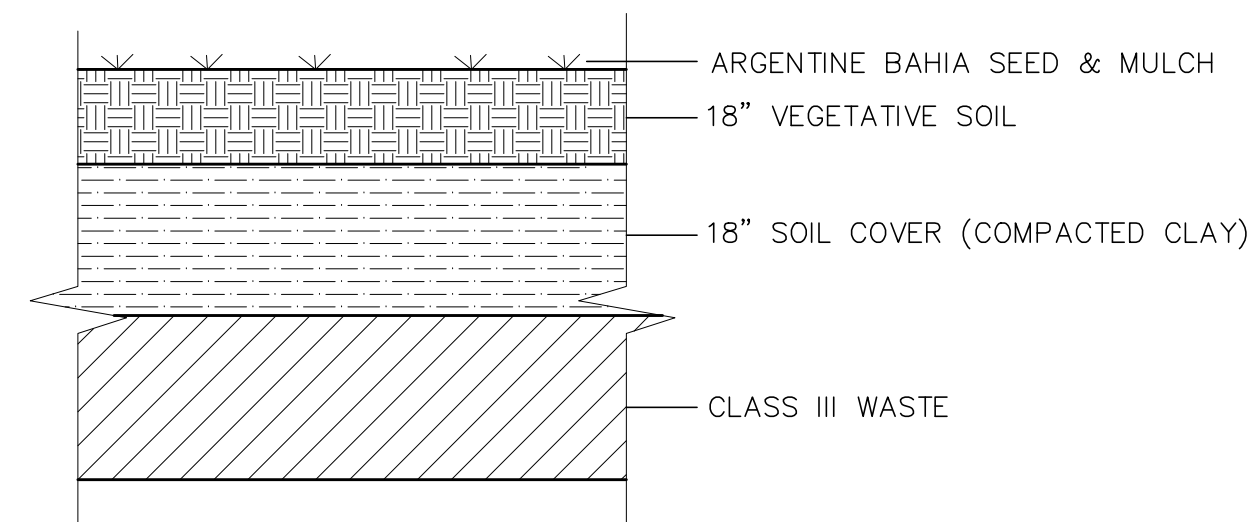
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C4.00  
TYPICAL DISPOSAL AREA DETAIL CELLS 16 & 17  
SCALE: N.T.S.



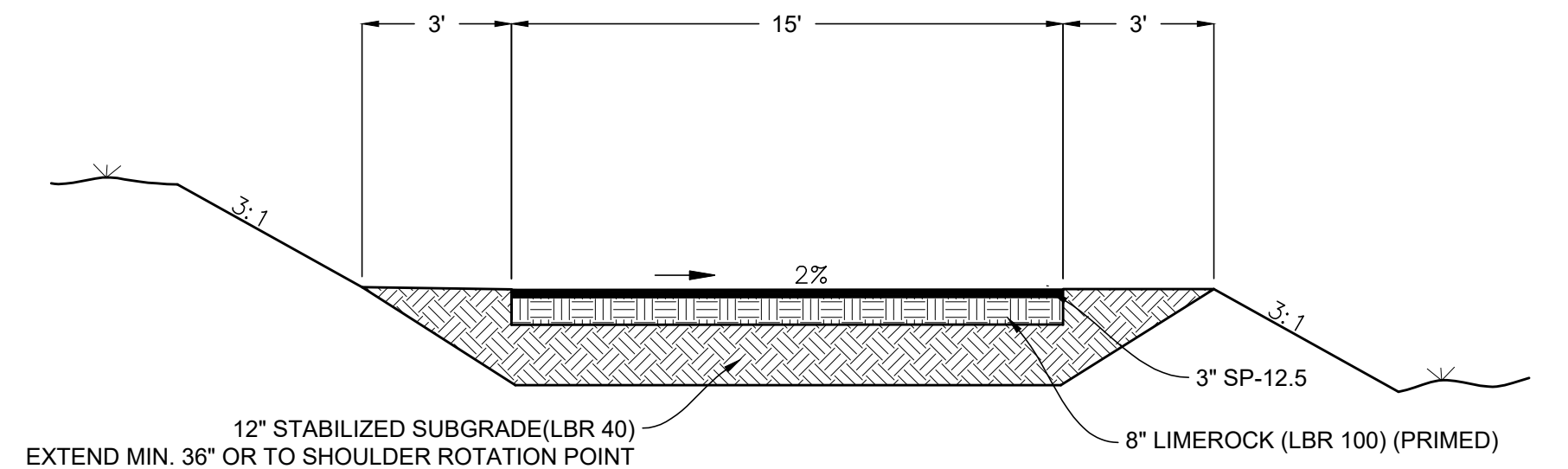
2  
C4.00  
TEMPORARY STORMWATER DIVERSION SWALE DETAIL  
SCALE: N.T.S.

NOTES:

1. FOR PERMITTED CELL 17 THE TEMPORARY DIVERSION SWALE IS CONSTRUCTED PRIOR TO WASTE ACCEPTANCE WITHIN CELL.
2. PRIOR TO WASTE BEING DISPOSED OF ON THE PREVIOUS INTERMEDIATE SLOPE THE TEMPORARY SWALE IS BACKFILLED AND COMPACTED WITH CLAY TO PROVIDE A CONTINUOUS CLAY BARRIER LAYER.
3. CLAY BARRIER LAYER TO BE CONSTRUCTED IN ACCORDANCE WITH SECTION 3.7 OF THE ENTERPRISE CLASS III LANDFILL ENGINEERING REPORT.
4. STEP BACK AND SCARIFY EXISTING CLAY LAYER IN 12" LIFTS PRIOR TO CONSTRUCTION NEW CLAY LAYER ADJACENT TO EXISTING.
5. FINAL COVER CONSTRUCTION TO BE IN ACCORDANCE WITH SECTION 7.1 OF THE ENTERPRISE RECYCLING & DISPOSAL FACILITY RECLAMATION & CLOSURE PLAN.



3  
C4.00  
TYPICAL FINAL COVER  
SCALE: N.T.S.



4  
C4.00  
ACCESS ROAD TYPICAL SECTION  
SCALE: N.T.S.

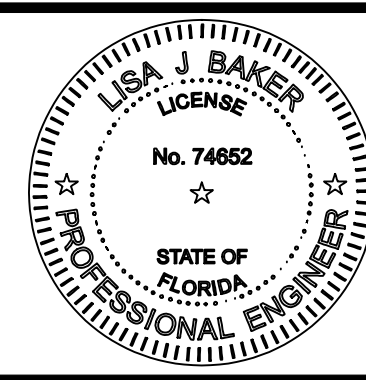
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NO.	DATE	REVISION DESCRIPTION	BY
1	4/1/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB
2	5/15/2019	RAI 1 SUPPLEMENTAL INFORMATION	LJB



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PROJECT TITLE:  
PERMIT PLANS  
ENTERPRISE ROAD CLASS III  
RECYCLING & DISPOSAL FACILITY  
OPERATIONS PLAN MINOR MODIFICATION  
DADE CITY, PASCO COUNTY, FLORIDA



DESIGNED BY	LJB
DRAWN BY	MAF
CHECKED BY	JDL
APPROVED BY	LJB

SHEET TITLE:  
CLOSURE DETAILS

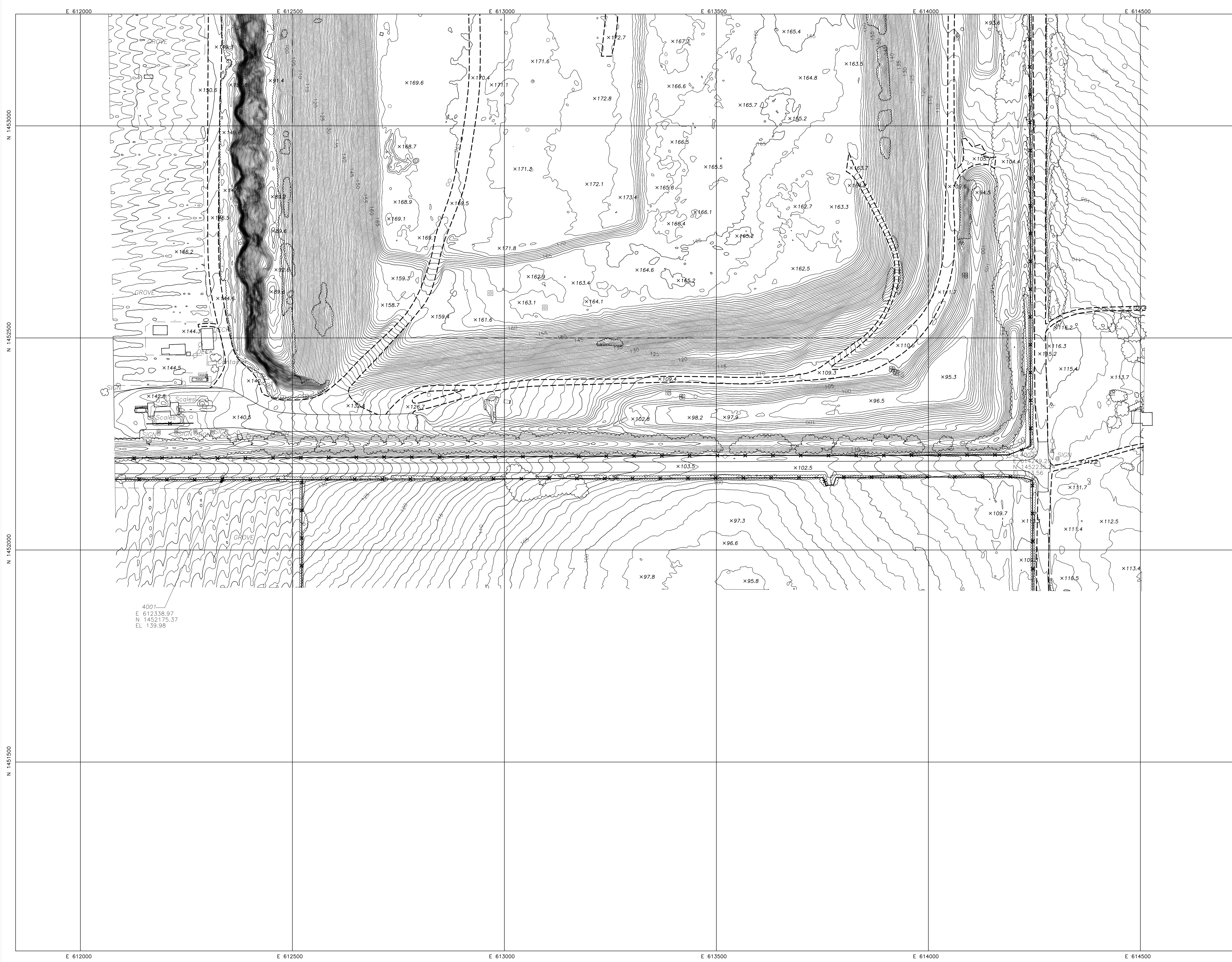
PROJECT NO.:	02000-217-17
SCALE:	AS SHOWN
DATE:	JULY 2019
DRAWING:	C4.00

REVIEW ONLY-NOT FOR CONSTRUCTION









**SURVEYOR'S NOTES:**

1.) North, the grid, and the coordinates shown are based on the National Geodetic Vertical Datum of 1929. Elevations are to National Geodetic Vertical Datum of 1929.

2.) This topographic survey was prepared using photogrammetric and LIDAR methods. See the attached report for map accuracy and the surveyor's signature and seal. This map is based on those features visible on aerial imagery.

3.) This topographic survey was prepared using photogrammetric and LIDAR methods. See the attached report for map accuracy and the surveyor's signature and seal. This map is based on those features visible on aerial imagery.

**LEGEND:**  
(THESE FEATURES ARE TO SCALE)

PIPELINE  
RECREATION  
EDGE OF GROVE  
EDGE OF WATER

(THESE FEATURES ARE NOT TO SCALE)

CURB  
PAVED ROAD  
CONCRETE SURFACE  
UNPAVED ROAD  
FENCE  
RAILROAD  
SHRUB  
STRUCTURE  
TREE LINE  
SHRUB LINE

(THESE FEATURES ARE NOT TO SCALE)

W.E. WATER ELEVATION  
X 120.1 SPOT ELEVATION  
MISC. MISCELLANEOUS

**ACTIVITY STATEMENT:** The following stated plan or other information was prepared by the surveyor and is based on the photogrammetrically measured values and ground truth of all features shown on the map. The surveyor is not responsible for the accuracy of the plan or other information shown on the map.

**VERTICAL:** Contours have been measured to an estimated accuracy of 0.25 feet. Spot elevations have been measured to an estimated accuracy of 0.25 feet. The map is based on an estimated horizontal positional accuracy of 1 foot.

**MAP PLOTTING:** This map is intended to be displayed at a scale of 1" = 50' (1:600) or smaller.

**MEASUREMENT METHODS:** This map is limited to those features shown on the map. The map is based on those features shown on the map.

**LIMITATIONS:** This map should be used for preliminary design work only and should not replace an actual field survey. The map is based on those features shown on the map.

**GRAPHIC SCALE**  
( IN FEET )  
1 inch = 100 ft.

**NO. DATE APPROVED REVISION**

NO.	DATE	APPROVED	REVISION
01	10/17/18	JTJ	ORIGINAL RELEASE

**PICKETT SURVEYING • ENGINEERING**

PICKETT AND ASSOCIATES, INC.  
475 SOUTH FIRST AVENUE BARTON,  
FLORIDA 32909  
PHONE: (863)-534-8995  
FAX: (863)-534-1464  
LICENSED BUSINESS NO. 13364

Flight Date: 9/17/18  
Drawing Name: 14094-9.DWG

Compiled by: PL  
Edited by: RP

Horiz. Scale: 1" = 100'  
Contour Interval: 1'

**TOPOGRAPHIC SURVEY**

**ENTERPRISE ROAD LANDFILL**

PREPARED FOR: ANGELO'S RECYCLED MATERIALS

**PROJECT NO.**  
14094-9

**DRAWING NO.**  
LD-6398

**NO.**  
2

**OF**  
2



## **SECTION 5**

# **GROUNDWATER MONITORING PLAN**

# Enterprise Class III Landfill Groundwater Monitoring Plan

~~July~~ October 2019

Prepared for:

**ANGELO'S RECYCLED MATERIALS, LTD.**

41111 Enterprise Road  
Dade City, Florida 33525

Prepared by:

**LOCKLEAR & ASSOCIATES, INC.**

4140 NW 37<sup>th</sup> Place, Suite A  
Gainesville, FL 32606





This Groundwater Monitoring Plan (GWMP) has been prepared in accordance with the provisions of Rule 62-701.510, F.A.C., and any non-conflicting provisions of Chapter 62-520, F.A.C. The GWMP was developed based upon an extensive evaluation of site data provided in the 2012 and 2018 Water Quality Monitoring Plan Evaluation Reports prepared by Locklear & Associates, Inc.

1. Water Quality Monitoring Plan

The groundwater monitoring network is shown in Table 1 and in Figure 1.

- a. All groundwater monitoring well installations and abandonments shall be performed in accordance with ASTM D5092-04(2010)e1, Rule 62-532.500(5), F.A.C., and the rules of Southwest Florida Water Management District.

- b. Sign and Seal

The reports shall be signed and sealed in accordance with Chapter 471, Florida Statutes and Chapter 61G15, FAC for engineers or with Chapter 492, Florida Statutes for professional geologists.

- c. Sampling and Analysis

All sampling and analysis shall be performed in accordance with Chapter 62-160, FAC; 62-701.510(2)(b), FAC; the DEP Standard Operating Procedures for Field Activities (DEP-SOP-001/01); and the DEP Standard Operating Procedures for Laboratory Activities (DEP-SOP-002/01).

- d. Groundwater Monitoring Requirements

The groundwater monitoring network consists of detection and compliance monitoring wells located downgradient from and within 100 feet of the disposal units. The detection wells are located no more than 500 feet apart. The network also includes background monitoring wells BW-1A and BW-1B screened within the surficial and Floridan aquifers, respectively. Downgradient compliance monitoring wells will be installed if warranted based on the results of detection monitoring results and Evaluation Monitoring as discussed in Section 1.h. Compliance wells will be located at or immediately adjacent to the compliance line of the zone of discharge.

Monitoring wells shall be constructed to provide representative groundwater samples from the surficial aquifer, where present, and the Floridan aquifer system. Well screen placement will be determined from lithologic information collected at the time of well installation and historic water level elevations as discussed below.

The top and bottom of the screen elevations for proposed surficial aquifer monitoring wells MW-21A, -22A, -23A and -24A are based on the top of clay confining unit elevations encountered during the installation of adjacent borings B-101 through B-111. The clay confining layer was encountered at the surface during 10 out of 11 of these borings. However, the lithology will be assessed at the location of each new well and surficial aquifer wells will be installed if water bearing soils exist above the clay confining layer. The historic range of surficial aquifer water elevations in this area is not available.

The top and bottom of the screen elevations for proposed Floridan aquifer monitoring wells MW-21B, -22B, -23B and -24B are based on the top of limestone elevations encountered during the installation of adjacent borings B-101 through B-111. The top of limestone elevation encountered during these borings was observed from approximately 45 to 65 ft. NGVD. The historical range of Floridan aquifer water elevations in adjacent monitoring wells MW-17B and MW-3B is 66 to 72 ft. NGVD (previous ten sampling events). Proposed top and bottom screen elevations for MW-21B, -22B, -23B and -24B are 65 ft. and 45 ft. NGVD, respectively. Screen elevations will be determined based on field findings during well installation.

Wells shall be constructed in accordance with the details provided in Figures 2 and 3. Documentation of well construction shall be submitted within 30 days of installation using Department Form #62-701.900(30).

Wells which become damaged, shall be plugged and abandoned in accordance with Rule 62-532.500(5), F.A.C. and the rules of the Southwest Florida Water Management District. Documentation of abandonment shall be submitted to the Department within 30 days of abandonment.

The location(s) of all new monitoring wells, in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing to the nearest 0.01 foot, using a consistent, nationally recognized datum, shall be determined by a Florida Licensed Professional Surveyor and Mapper. Wells will be marked with their identification label in the field.

e. Surface Water Monitoring Requirements

Ponds 1, 2 and 3 do not have off-site discharge associated with the 100-year flood event. Therefore, surface water sampling is not required as part of the solid waste operating permit. In the unexpected event of a surface water discharge event, surface water monitoring will occur per Appendix 3, Para. 8.a. and Para. 8.b. of #177982-~~020028~~-SO/T3. However, surface water in Pond 3 will be sampled in accordance with the Industrial Wastewater pond permit.

f. Leachate Monitoring Requirements

- (1) Leachate monitoring is not applicable to this facility.

g. Sampling Frequency and Requirements

- (1) Water samples from all newly installed monitoring wells (including new wells associated with the construction of Cell 17) will be collected within 7 days of installation and development to determine background groundwater quality. Groundwater samples from the initial sampling of any new wells will be analyzed for parameters listed in Rule 62-701.510(7)(a) and (7)(c), F.A.C. (Table 2).

Table 2 Initial Groundwater Sampling Parameters	
Field Parameters	Laboratory Parameters
Static Water Levels	Total Ammonia – N
Specific Conductivity	Chlorides
pH	Iron
Dissolved Oxygen	Mercury
Turbidity	Nitrate
Temperature	Sodium
Colors and Sheens	Total Dissolved Solids (TDS)
	Those Parameters listed in 40 CFR Part 258, Appendices I and II

- (2) Groundwater samples from all monitoring wells (background, detection, and compliance) and the on-site supply well shall be sampled and analyzed semiannually for the parameters listed in Table 3. A semiannual sampling frequency is adequate to detect potential groundwater quality standard exceedances based upon the flow

velocities provided in [Section III of the 2012 WQMPE](#) [Section 2.2 of the Groundwater Monitoring Technical Report 2015 – 2017, dated March 2018](#). Maximum groundwater flow velocities were less than 50 feet per six months within both the surficial and Floridan aquifers. The first semiannual sampling event shall be performed between January 1 and June 30. The second semiannual sampling event shall be performed between July 1 and December 31.

Table 3 Routine Groundwater Sampling Parameters	
Field Parameters	Laboratory Parameters
Static Water Level	Total Ammonia – N
Specific	Chlorides
Conductivity	Iron
pH	Mercury
Dissolved Oxygen	Nitrate
Turbidity	Sodium
Temperature	Total Dissolved Solids (TDS)
Colors, Sheens	Those Parameters listed in 40 CFR Part 258, Appendix I

- (3) Surface water sampling shall be conducted at Pond 3 in accordance with the requirements of the separate Industrial Wastewater pond permit.
- (4) Leachate sampling is not applicable to this facility.
- h. Evaluation Monitoring, Prevention Measures, and Corrective Action

If parameters are detected in detection wells at concentrations that are significantly above background water quality, or that are at concentrations above the FDEP's water quality standards or criteria specified in 62-520, F.A.C., the well will be resampled within 30 days after the initial analytical data are received to confirm the data. If the data are confirmed or the well is not resampled, the FDEP will be notified in writing within 14 days of detection. Evaluation monitoring shall be initiated as follows:

- Routine monitoring of all monitoring wells will continue according to the GWMP.



- Within 90 days of notification from the Department to initiate evaluation monitoring and annually thereafter, the background wells and all affected detection wells will be sampled for the parameters listed in 62-701.510(7)(c), F.A.C. Any new parameter detected and confirmed in the downgradient wells will be added to the routine groundwater monitoring parameter list.
- Within 90 days of notification from the Department to initiate evaluation monitoring, compliance monitoring wells will be installed at the compliance line of the zone of discharge and downgradient of the affected detection wells. The compliance wells will be installed in accordance with 62-701.510(3)(d), F.A.C. Compliance wells and affected detection wells shall be sampled quarterly for analysis of the parameters listed in Rule 62-701.510(7)(a), F.A.C. and any other parameters detected in the affected detection and downgradient wells sampled in accordance with Rule 62-701.510(6)(a)2, F.A.C. Compliance wells and affected detection wells shall be sampled annually for analysis of the parameters listed in Rule 62-701.510(7)(c), F.A.C.
- Within 180 days of notification from the Department to initiate evaluation monitoring, a contamination evaluation plan will be submitted to the FDEP. The contamination evaluation plan will be designed to delineate the extent and cause of contamination, to predict the probability that FDEP water quality standards are not violated outside the zone of discharge, and to evaluate methods to prevent any violations. Upon agreement with the FDEP that the plan is so designed, the plan shall be implemented and a contamination evaluation report will be submitted to the FDEP. All reasonable efforts will be made to prevent further degradation of water quality from the landfill activities.
- If the contamination evaluation report indicates that water quality standards or criteria are likely to be violated outside the zone of discharge, a prevention measures plan shall be submitted to the Department within 90 days. Upon approval, the prevention measures shall be initiated.
- Evaluation monitoring shall not be discontinued until authorization to return to routine monitoring only is received from the Department.

i. Water Quality Monitoring Report Requirements

- (1) All representative water quality monitoring results shall be reported to the Department within 60 days from completion of laboratory analyses. In accordance with subsections 62-160.240(3) and 62-160.340(4), F.A.C., water quality data contained in the report shall be provided to the Department in an electronic format consistent with requirements for importing into Department databases.

At a minimum the semiannual report shall include the following:

- The facility name and identification number, sample collection dates, and analysis dates;
  - All analytical results, including all peaks even if below maximum contaminant levels;
  - Identification number and designation of all groundwater monitoring points;
  - Applicable water quality standards;
  - Quality assurance, quality control notations;
  - Method detection limits;
  - STORET code numbers for all parameters;
  - Water levels recorded prior to evaluating wells or sample collection. Elevation reference shall include the top of well casing and the land surface at each well site at a precision of plus or minus 0.01 foot, National Geodetic Vertical Datum (NGVD);
  - Department Form 62-701.900(31);
  - An updated groundwater table contour map signed and sealed by a professional geologist or professional engineer with experience in hydrogeologic investigations, with contours at no greater than one-foot intervals unless site-specific conditions dictate otherwise, which indicates groundwater elevations and flow directions; and
  - A summary of any water quality standards or criteria that are exceeded.
- (2) A technical report will be submitted every two and one-half years summarizing and interpreting the water quality monitoring results and water level measurements collected during that period. The report will be in accordance with Rule 62-701.510(8)(b) and signed and sealed by a Florida licensed Professional Geologist or Professional Engineer. The report shall contain, at a minimum, the following:
- Tabular displays of any data which shows that a monitoring parameter has been detected, and graphical displays of any leachate key indicator parameters detected (such as pH, specific

conductance, TDS, TOC, sulfate, chloride, sodium and iron), including hydrographs for all monitoring wells;

- Trend analyses of any monitoring parameters consistently detected;
- Comparison among shallow, middle, and deep zone wells;
- Comparisons between background water quality and the water quality in detection and compliance wells;
- Correlations between related parameters such as total dissolved solids and specific conductance;
- Discussion of erratic and/or poorly correlated data;
- An interpretation of the groundwater contour maps, including an evaluation of groundwater flow rates; and
- An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based on site conditions.

P:\P Drive Files\ANGEL OS (FLORIDA)\Enterprise Class III\COMPLIANCE MONITORING\Permit Renewal\2019 Mod Operations Permit\RAI 1\Figure 1\_RAI October 2019.dwg PLOT DATE 10/18/2019 9:03 AM BY LJB

LEGEND

- BW-1B

BACKGROUND MONITORING WELL LOCATION
- MW-7A

DETECTION MONITORING WELL LOCATION
- MW-23B

PROPOSED DETECTION MONITORING WELL LOCATION
- SUPPLY WELL LOCATION
- P-11

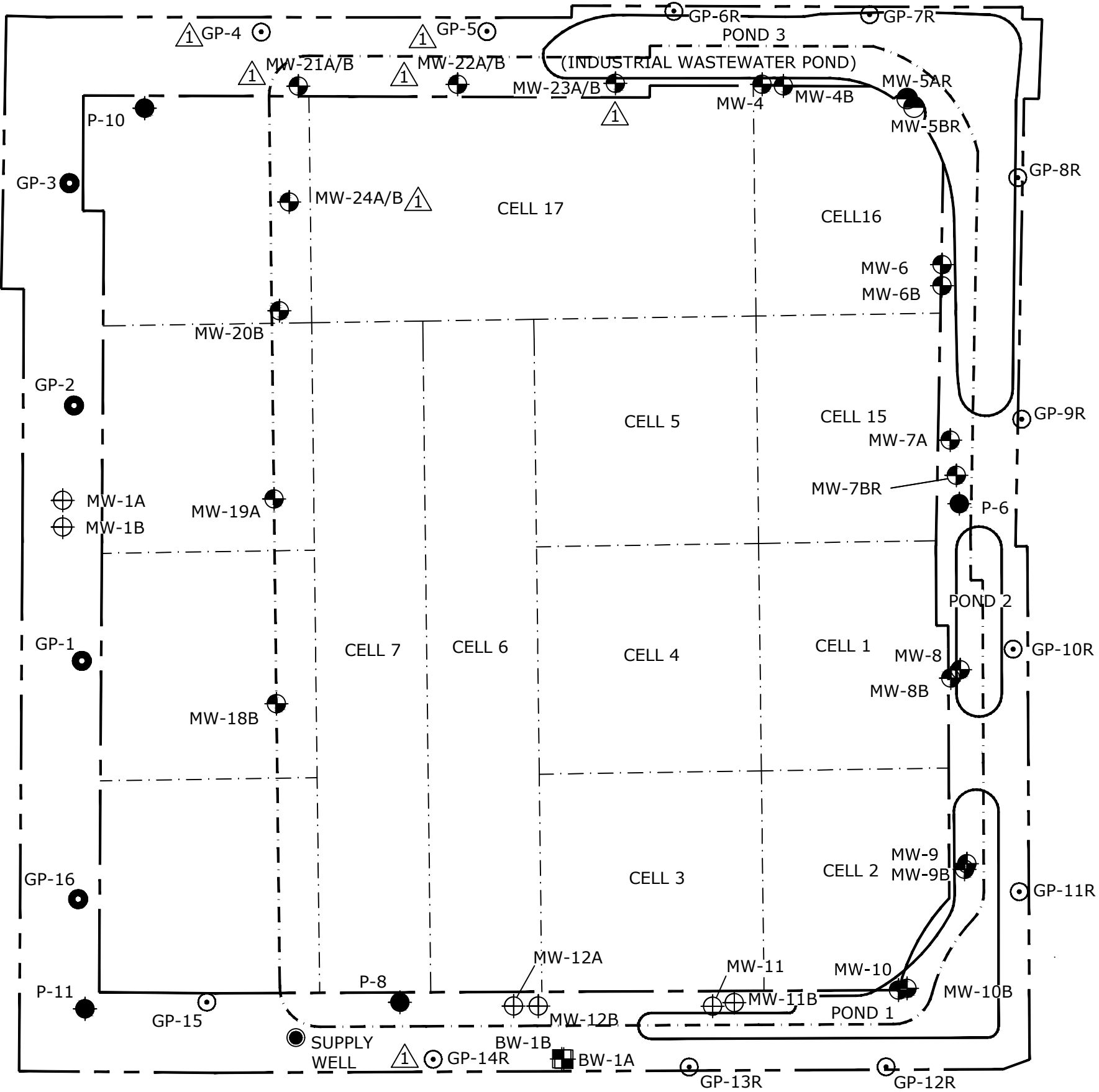
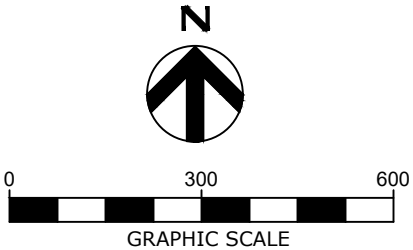
SOLID WASTE PIEZOMETER WELL LOCATION
- MW-12A

WATER LEVEL ONLY WELL LOCATION
- MW-5AR

COMPLIANCE MONITORING WELL LOCATION
- GP-10R

GAS PROBE LOCATION
- GP-16

FUTURE GAS PROBE LOCATION
- PROPERTY BOUNDARY
- LANDFILL LIMITS
- CELL BOUNDARY
- ZONE OF DISCHARGE



NO.	DATE	REVISION DESCRIPTION	BY
1	8/2/2019	RAI 1 - PROBE/WELL SYMBOLS UPDATED; GP-15R & GP-14 REMOVED	NLD



4140 NW 37th Place, Suite A  
Gainesville, Florida 32606  
Phone: 352.672.6867 Fax: 352.692.5390  
Certificate of Authorization No. 30066

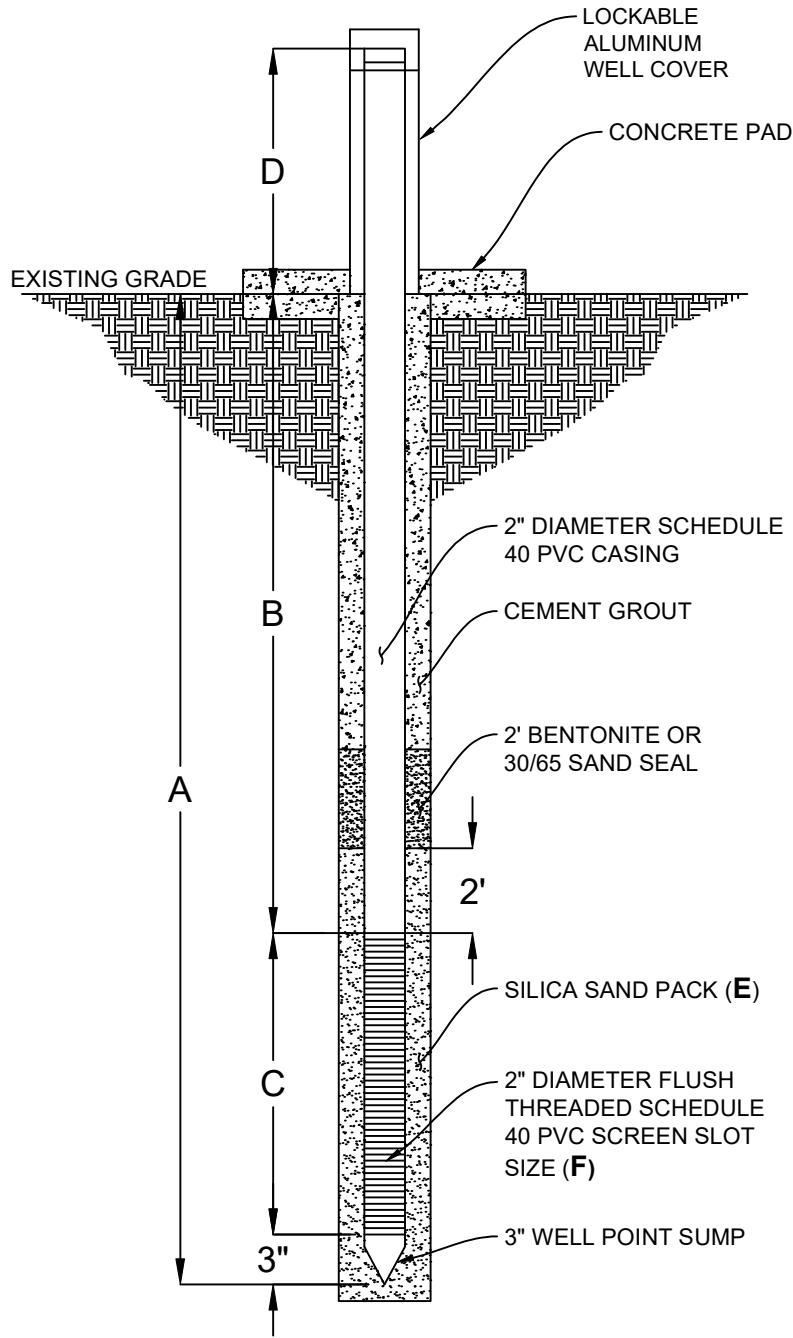
PROJECT TITLE:  
**ENTERPRISE ROAD CLASS III  
RECYCLING AND DISPOSAL FACILITY  
DADE CITY, FLORIDA**

LISA J. BAKER	DESIGNED BY	LJB
	DRAWN BY	LJB
	CHECKED BY	JDL
FL PE NO. 74652	APPROVED BY	LJB

SHEET TITLE: <b>SITE MAP</b>	PROJECT NO.: 02000-144-14
	SCALE: AS SHOWN
	DATE: JULY 2019
	DRAWING: <b>FIGURE 1</b>



FIGURE NOT TO SCALE



WELL	A	B	C	D	E	F	TOP OF WELL SCREEN ELEVATION FT, NGVD	BOTTOM OF WELL SCREEN ELEVATION FT, NGVD	ASSUMED GROUND SURFACE ELEVATION FT, NGVD	ASSUMED LIMESTONE SURFACE ELEVATION FT, NGVD
MW-21A	25'	5'	20'	3'	20/30	0.010"	119' <sup>(1)</sup>	99' <sup>(3)</sup>	124' <sup>(1)</sup>	65' <sup>(2)</sup>
MW-22A	25'	5'	20'	3'	20/30	0.010"	119' <sup>(1)</sup>	99' <sup>(3)</sup>	124' <sup>(1)</sup>	65' <sup>(2)</sup>
MW-23A	25'	5'	20'	3'	20/30	0.010"	119' <sup>(1)</sup>	99' <sup>(3)</sup>	124' <sup>(1)</sup>	65' <sup>(2)</sup>
MW-24A	<u>25'</u>	<u>5'</u>	<u>20'</u>	<u>3'</u>	<u>20/30</u>	<u>0.010"</u>	<u>119' <sup>(1)</sup></u>	<u>99' <sup>(3)</sup></u>	<u>124' <sup>(1)</sup></u>	<u>65' <sup>(2)</sup></u>

NOTES:  
(1) From MW-20 ground elevation  
(2) From borings B-101 through B-111 lithology  
(3) Based on site-specific lithology and water level data.  
Subject to change per field findings during well installation.

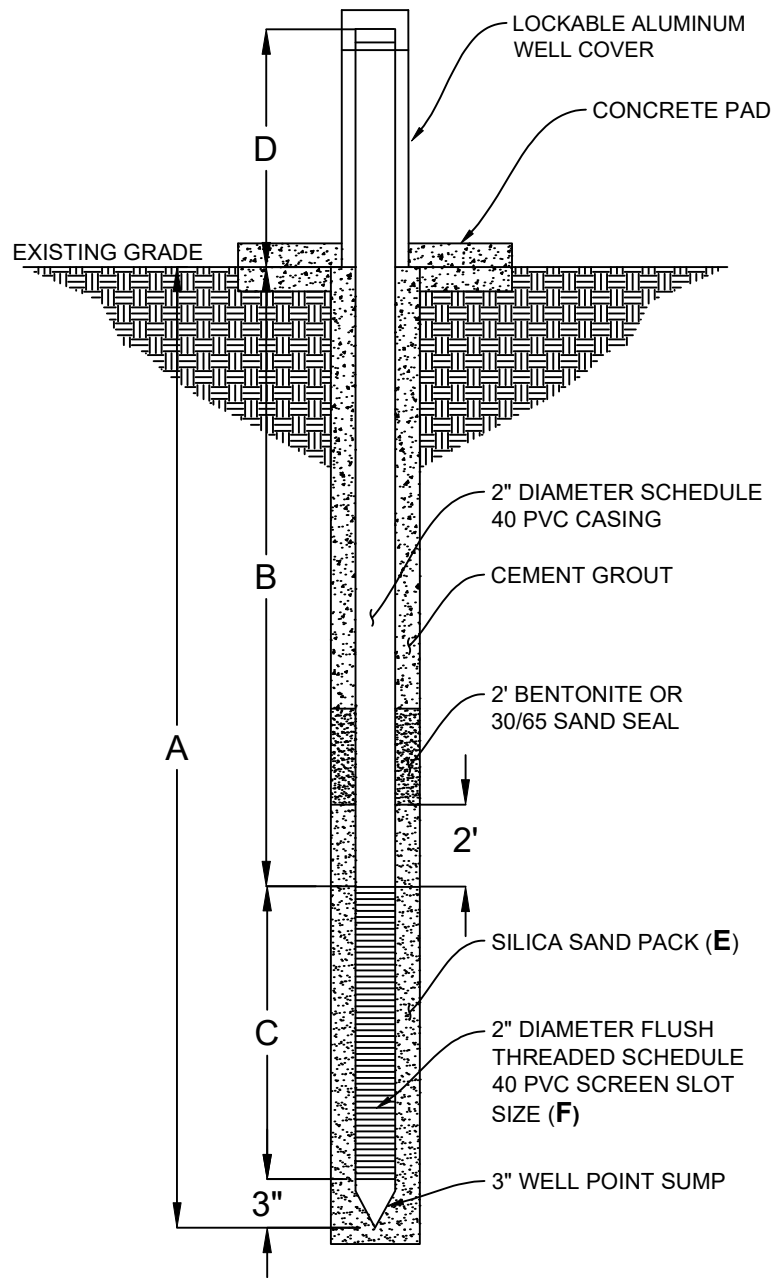


ENTERPRISE ROAD RECYCLING  
AND DISPOSAL FACILITY  
DADE CITY, FLORIDA

PROPOSED  
SURFICIAL AQUIFER  
MONITOR WELL DETAIL

FIGURE  
2

FIGURE NOT TO SCALE



WELL	A	B	C	D	E	F	TOP OF SCREEN ELEVATION FT, NGVD	BOTTOM OF SCREEN ELEVATION FT, NGVD	ASSUMED GROUND SURFACE ELEVATION FT, NGVD	ASSUMED LIMESTONE SURFACE ELEVATION FT, NGVD
MW-21B	81'	61'	20'	3'	20/30	0.010"	65' (3)	45' (3)	124' (1)	65' (2)
MW-22B	81'	61'	20'	3'	20/30	0.010"	65' (3)	45' (3)	124' (1)	65' (2)
MW-23B	81'	61'	20'	3'	20/30	0.010"	65' (3)	45' (3)	124' (1)	65' (2)
MW-24B	81'	61'	20'	3'	20/30	0.010"	65' (3)	45' (3)	124' (1)	65' (2)

NOTES:

(1) From MW-20 ground elevation

(2) From borings B-101 through B-111 lithology

(3) Based on site-specific lithology and water level data.  
Subject to change per field findings during well installation.



ENTERPRISE ROAD RECYCLING  
AND DISPOSAL FACILITY  
DADE CITY, FLORIDA

PROPOSED  
FLORIDAN AQUIFER  
MONITOR WELL DETAIL

FIGURE  
3

## **SECTION 7**

### **CLOSURE AND RECLAMATION PLAN**

**ENTERPRISE ROAD CLASS III RECYCLING AND DISPOSAL FACILITY  
MINOR MODIFICATION PERMIT APPLICATION  
CLOSURE AND RECLAMATION PLAN**

*Prepared for:*

**ANGELO'S AGGREGATE MATERIALS, LTD**  
855 28<sup>th</sup> Street South  
St. Petersburg, Florida 33712

*Presented to:*

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SOUTHWEST DISTRICT – SOLID WASTE DIVISION**  
13051 N. Telecom Parkway  
Temple Terrace, Florida 33637

*Prepared by:*

**LOCKLEAR & ASSOCIATES, INC.**  
4140 NW 37 Place, Suite A  
Gainesville, Florida 32606  
Certificate of Authorization #30066

JULY 2019



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## 1.0 RECLAMATION AND CLOSURE STANDARDS

This Closure Plan is designed to comply with the Florida Department of Environmental Protection (FDEP) requirements of Rule 62-701.600, F.A.C. and the Pasco County Land Development Code (LDC) for Class I Mine reclamation and Class III landfill closure. The landfill will be used to reclaim the borrow pit excavation as phases are completed.

### 1.1 TIMING

Mine reclamation and landfill closure will commence when all cells have been filled. Reclamation and closure will be completed within four (4) months of commencement. An intermediate soil cover of at least one (1) foot in depth will be applied and maintained within seven (7) days of lift completion. If the landfill operator (Operator) wishes to deposit additional solid waste in the completed cell, all or part of the intermediate cover may be removed to place the waste or to install the final cover. Intermediate cover will be placed on completed landfill cells and sideslopes as filling progresses. Final cover will be installed upon each completed landfill cell within 180 days after attaining final elevation. The remaining Facility life is provided in Section 3.8.3 of the Engineering Report in Section 3.

### 1.2 STORMWATER MANAGEMENT

The approved Stormwater Management Plan for the landfill consists of berms, swales, and ponds constructed within the 200-foot landscape buffer zone to divert, collect and contain stormwater runoff from the completed site. These stormwater facilities are designated to retain the 100-year, 24-hour storm volume as required by Pasco County and the FDEP. Pond 3 has been permitted through the Industrial Wastewater division of FDEP. Additional details concerning the stormwater management system are provided in Operations Plan Minor Modification Plan Set.

### 1.3 FINAL COVER SPECIFICATIONS

The construction of the final cover will consist of three main operations. First, on-site clayey sand and sandy clay soils will be utilized to construct a barrier layer. Secondly, a layer of soil capable of sustaining vegetation will be constructed. Finally, seeding and mulching, or sodding with "Argentine" Bahia grass, or equivalent, will then be performed to establish a permanent ground cover. Detailed specifications for each of these operations are described as follows:

#### 1.3.1 Final Cover Design

All areas filled with waste will have a final cover of soil designed to minimize infiltration of rainfall. Final cover will be initiated with 30 days of reaching final grade and will be placed and completed over each cell within 180 days after final waste deposit. The final cover will consist of a 3-foot thick layer of soil, of which the bottom 18 inches is barrier layer and the top 18 inches

will sustain vegetative growth. A detail is provided in the Operations Plan Minor Modification Permit Plan Set.

#### 1.3.2 Barrier Layer

The 18-inch barrier layer will have a permeability of  $1 \times 10^{-8}$  cm/sec or less. On site clayey sands will be used to construct the barrier layer. Once these soils have been placed and compacted in 6-inch lifts to 95% standard proctor, a series of *insitu* thickness tests and permeability tests will be completed prior to placement to of the vegetative soil layer.

#### 1.3.3 Vegetative Soil Cover

An 18-inch layer of soil from the onsite borrow operation may be used, as the vegetative soil layer. These soils will sustain vegetative growth (grasses).

#### 1.3.4 Grading and Compaction

Grading work will be performed as shown and specified on the construction plans in the Operations Plan Minor Modification Permit Plan Set. Final slopes will not exceed a 3:1 slope.

The Applicant will be responsible for grading within the landfill limits. All irregularities and low areas will be fine graded with onsite soil material. The Applicant will maintain grades, profiles and contours as indicated on the approved final grading plan. The Applicant will protect and maintain finish graded areas from traffic and erosion. In the event that the site grading is eroded and/or damaged prior to final acceptance, the Applicant will repair and reestablish the grades in accordance with the construction plans.

#### 1.3.5 Construction Quality Assurance Plan

To assure that the landfill's final cover meets the design parameters, the following Construction Quality Assurance Plan (CQA) plan has been developed. This CQA plan will be under the direction of a Florida registered professional engineer experienced in geotechnical engineering or landfill cover construction. The engineer or his designee will be on-site at all times during construction of the cover to monitor construction activities. Field and laboratory testing during final cover construction will be by a qualified soil testing laboratory.

Prior to final cover construction, a suitable borrow source meeting the project specifications for the barrier layer will be determined. The Applicant plans to use on-site soils to meet these specifications. A minimum of three (3) representative samples from on-site soils will be submitted to a laboratory for index testing to quantify the variability of the borrow materials. The index tests will consist of percent fines (ASTM D-1140), Atterburg limits (ASTM D-4318), and moisture content (ASTM D-2216).



In addition, a minimum of three (3) laboratory hydraulic conductivity tests will be conducted on the barrier layer borrow source by ASTM D-5084 under a consolidation stress no greater than 10 pounds per square inch. The borrow source will only be considered suitable if the laboratory reports document a hydraulic conductivity of  $1 \times 10^{-8}$  cm/sec or less at the 95 percent confidence level.

The following field tests will be performed during final cover construction:

1. Density tests at a minimum of two tests per acre per 6-inch lift, of the compacted cover material;
2. Thickness measurements at a minimum of three tests per acre;
3. Index testing as previously discussed at a minimum of one sample per acre;
4. Hydraulic conductivity testing of Shelby tube samples (ASTM D-2937) of compacted barrier layer by laboratory test method ASTM D-5084 at a minimum frequency of one test every two acres. The barrier layers' hydraulic conductivity will be considered acceptable if laboratory reports meet the project specifications of  $1 \times 10^{-8}$  cm/sec or less at the 95 percent confidence level.

If laboratory test data for a cover section does not meet these requirements, additional random sample testing may be conducted to determine if the cover is acceptable to the Project Engineer, the cover section must be reworked or reconstructed to meet these requirements.

CQA reporting requirements will include: daily summary reports during cover construction; observation data sheets; problem identification and corrective actions taken; and final documentation, laboratory reports and construction record drawings. A final report with all such documents will be submitted to the Pasco County and the FDEP.

#### 1.3.6 Seeding and Mulching

Seeding and mulching will consist of establishing a dense stand of grass throughout each closed cell. Included with this task are fertilizing, watering, and periodic maintenance mowing as required to produce a healthy stand of grass. Seeding work will be performed only after planting and other work affecting ground surface has been completed unless the Applicant is specifically requested to do otherwise for purposes of stabilization, etc., prior to project completion. The vegetation species recommended are drought resistant and their roots will not penetrate the final cover to provide a channel for moisture infiltration.

#### 1.3.7 Materials

Seeds and mulch materials will conform to the following:

1. Seed - Fresh, clean new crop mixture composed of the following variety and proportions:

<u>Blend</u>	<u>Parts</u>	<u>Purity</u>	<u>Min. Germination</u>
Argentine Bahia (or equivalent)	100 Percent	80 Percent	90 Percent

Rate will be 120 pounds per acre (Refer to Index No.104, *Roadway and Traffic Design Standards*, Florida Department of Transportation, 1992).

2. Mulch - Dry mulch, free from mature seed bearings stalks or roots of noxious weeds. Dry mulch will be straw or hay consisting of oat, rye or wheat straw. Approximately two (2) inches of the mulch material will be applied uniformly over the seeded area
3. Fertilizer - Granular, non-burning product containing 6 percent nitrogen, 6 percent phosphoric acid, and 6 percent potash by weight, and spread uniformly at a rate of 220 pounds per acre. Fertilizer will be mixed with the soil to a depth of  $\pm$  four (4) inches.
4. Watering - The seeded area will be watered so as to provide optimum growth conditions for the establishment of grass. The water used in the grassing operations may be obtained from any approved supply well, like Larkin's well on the adjacent property to the west. The water will be free of excess and harmful chemicals, acids, alkalis, or any substance which might be harmful to plant growth or obnoxious odors to traffic. Salt water will not be used.

The Applicant will provide a uniform dense stand of grass by watering, mowing and maintaining seeded areas for a thirty (30) year period after closure or until final acceptance by FDEP and the County, whichever is less. Sodding may be used as an alternative to seeding and mulching.

#### 1.4 RECLAMATION APPROVAL

Approval of reclaimed areas (final cover) may be requested at any time by submitting such request to the County and the FDEP. The request will include a map specifying reclamation areas (final cover) for which approval is sought and a general description of how reclamation has been accomplished. The Applicant will coordinate and schedule the review of the reclaimed areas with the appropriate departments, divisions or agencies. Reclamation of the site will be deemed completed upon demonstration and agency approval that the site has been reclaimed in accordance with the approved reclamation plan.

#### 1.5 INSPECTIONS

County and FDEP staff will have access to the project to inspect and observe permitted activities in order to determine compliance with the terms of the Closure Permit. The County and FDEP will also have access to the site during the post-closure phase of the project.

## 1.6 SURVEY MONUMENTS

Permanent concrete monuments will be installed to mark the boundaries of the landfill property. Where the final grade of the landfill is 20 feet or less above grade, permanent markers will be installed to outline the general waste filled area. The location and elevation of all markers will be tied to boundary markers by the professional performing the final survey and will be submitted on a site plan filed with the "Declaration to the Public."

## 1.7 FINAL SURVEY AND AS BUILT REPORTS

A final topographic survey will be performed by a Florida registered land surveyor to verify the final contours and elevations of the facility are in accordance with the plans as approved in the permit within 180 days after closure. This survey will be submitted to the FDEP along with the Certification of Closure Construction Completion on Form 62-701.900(2), F.A.C..

## 1.8 OFFICIAL DATE OF CLOSING

Upon receipt and approval of the Certification of Closure Construction Completion and the "Declaration to the Public", FDEP and the County will, within 30 days, acknowledge by letter to the facility operator, that notice of termination of operations and closing of the facility has been completed. The date of the letter will be the official Date of Landfill Closing for purposes of determining the Long Term Care Period.

## 1.9 CLOSURE SCHEDULE

The schedule for closure activities will be based on the time required to fill each cell to the final grades. Please refer to Sections 1.10 through 1.12 for closure milestones.

## 1.10 NOTICE AND ADVICE TO USERS

At least 90 days prior to the date when wastes will no longer be accepted at the landfill, the owner or operator will submit an application to advise users of the intent to close the facility by posting signs at the entrance of the facility giving the date of closing, the location of alternative disposal facilities and name of the entity responsible for closing the landfill. These signs will be maintained throughout the closing period. If unforeseen circumstances do not allow the 90 day notice to users, notice will be provided as soon as the need to close the facility becomes apparent.

## 1.11 NOTICE TO THE PUBLIC

Once closure construction has been completed, a Declaration to the Public will be filed in the deed records in the office of the Pasco County Clerk of Courts. The Declaration to the Public will include a legal description of the Class III Landfill property and a site plan showing the limits of waste. The Declaration to the Public will also include a notice that any future owner or user of the

site should consult with the Department prior to planning or initiating any activity involving disturbing the landfill, monitoring system, or control structures. A certified copy of this notice will be filed with the FDEP.

## 1.12 CLOSURE PERMIT APPLICATION SUBMITTAL

A Closure Permit application will be submitted to Pasco County and the FDEP no less than 90 days prior to the scheduled closing day in accordance with the requirements of Rule 62-701.600, F.A.C.

The Closure Permit application will include the following: Closure Design Plan, Closure Operation Plan, Long-Term Care Plan, and proof of financial responsibility for long-term care period.

## 2.0 FINAL USE AND LONG TERM CARE

The proposed final use of the closed landfill will be as pastureland. The final use for the landfill site will exclude any buildings or other structures, unless such buildings and structures are specifically designed to address gas venting and settlement considerations associated with construction over a landfill. Long term care for the site will include maintaining the landscaping, security facilities, erosion control, filling subsidence areas, and maintaining the stormwater system for a period of thirty (30) years and maintaining the groundwater monitoring plan for a period of time established by the County or the FDEP. The Long-Term Care period may be extended if the closure design or operation plan is found to be ineffective, per Rule 62-701.620 F.A.C.

### 2.1 REPLACEMENT OF MONITORING DEVICES

If the monitoring wells or other devices required by the Groundwater Monitoring Plan are destroyed or fail to operate for any reason, the landfill Owner or Operator will, upon discovery, notify the FDEP and County in writing. All inoperative monitoring devices will be repaired or replaced with functioning devices within 60 days of the discovery of the malfunctioning unit.

### 2.2 LONG TERM MONITORING

Once the proposed Landfill facility is closed, groundwater and gas monitoring will continue for a period of up to 30 years with reports submitted to the County and the FDEP. Groundwater reports will be submitted semi-annually and gas monitoring reports will be submitted on a quarterly basis.

A Stabilization Report will be submitted to the Department every 5 years after the long-term care permit is issued. The Stabilization Report will include or address the following:

- Water quality technical report
- Waste subsidence
- Barrier layer effectiveness
- Stormwater management



- Gas production and management

## 2.3 FINAL COVER SYSTEM MAINTENANCE

Regular maintenance of all reclaimed areas will be performed by the Operator or a designated agent in order to assure that the reclamation standards are achieved and the approved reclamation plan is accomplished. The maintenance will include monitoring for a minimum of thirty (30) years after planting, replacement of any planted areas that fail to survive in accordance with the established standards, the removal of non-native species that have not been approved by the County, and the maintenance of all required slopes, final cover, embankments, ponds, fences, gates, signs, monitoring systems and stormwater facilities. The operator will maintain a stockpile on-site of approximately 60,000 cyds of cover material to be used for final cover maintenance.

The Operator will conduct monthly inspections of the facility. The site inspection will include the verification that the final cover system retains its integrity and effectiveness. The final cover will be routinely evaluated and inspected for any evidence of soil erosion, settlement and subsidence, exposed waste, cracks, ponded water, vegetation stress, slope failure, and seeps.

Deficiencies such as cracks, erosion damage, or settlement in the final cover will be evaluated regarding its extent and depth. Repairs and restoration will be consistent with the final cover construction specifications. Location of areas repaired will be identified on a site map for future reference. Areas requiring repeated repairs will be evaluated and considered for special or expanded improvements to retain the integrity and performance of the final cover system. If necessary, temporary berms, ditches, and erosion materials will be used to prevent further erosion damage or ponding on damaged soil cover areas until the site conditions permit the final cover areas and vegetation to be re-established. Preventative maintenance of the final cover should preclude problems arising from potential seeps from infiltration of surface water.

## 2.4 REVEGETATION

1. Revegetation of all disturbed areas will be conducted in a manner so as to achieve permanent revegetation which will minimize soil erosion and surface water runoff, conceal the effects of surface mining and recognize the requirements for appropriate habitat for fish and wildlife. Should washes, rills, gullies, or the like, develop after revegetation and before a thirty (30) year maintenance period, such eroded areas will be repaired, the slopes stabilized and revegetated, within thirty (30) days.
2. Good quality topsoil will be applied as the soil cover material for all reclaimed areas. Alternate growing media must be approved by the County prior to commencement of revegetation.
3. Revegetation efforts will commence within thirty (30) days after completion of regrading and will be completed within one hundred and twenty (120) days.

## 2.5 LANDFILL GAS MANAGEMENT SYSTEM

If the gas probes or other devices required by the landfill gas management system are destroyed or fail to operate for any reason, the landfill Operator will, upon discovery, notify the FDEP and County in writing. All inoperative monitoring devices will be repaired or replaced with functioning devices within 60 days of the discovery of the malfunctioning unit.

## 2.6 STORMWATER DRAINAGE SYSTEMS

Drainage control system problems can result in accelerated erosion of the final cover system and differential settlement of drainage control structures can limit their usefulness and may result in failure of the drainage structure. It is expected that the drainage facilities at the Facility will require a greater amount of maintenance in the period immediately following construction than in later periods. This is due to greater potential for differential settlement early in the post closure period and the lack of mature vegetation.

The Operator will inspect the drainage facilities for the following:

- Evidence of erosion
- Standing water
- Formation of gullies
- Settlement, blockage, and damage to drainage channels, structures, swales and culverts

Inspection of the drainage facilities will occur prior to and during the rainy season to ensure proper functioning. Surface areas will be inspected during dry periods and necessary repairs made prior to the rainy season. Inspections will include checking for erosional ruts and settlement cracks. In addition, inspections will be made after each major storm to ensure that all swales are functioning properly and that there is no ponding water. All swales, drainage channels, and retention ponds will be inspected on a regular basis for silt or debris build-up. Damage to the drainage system will be addressed immediately after finding a problem. Permanent repairs and restoration will be made consistent with final closure construction specifications. Temporary repairs may be utilized until permanent repairs can be scheduled.

## 2.7 REDUCED LONG-TERM CARE PERIOD

The owner of the landfill may apply to Pasco County and FDEP for a permit modification to reduce the long-term care schedule after a 10-year history after closure in accordance with Rule 62-701.620 (2), F.A.C.

## 2.8 RIGHT OF ACCESS AND ACCESS CONTROL

The Owner currently poses a right of access to the subject site. Any future owner or operator will maintain this right of access to the access route and the property for the life of the landfill and

throughout the long-term care period. All owners/operators will maintain all security barriers (fencing, signage, gates) for the design life and long-term care period of the landfill.

## 2.9 CONTINGENCY PLAN FOR EMERGENCIES

If fires or severe weather events occur, the Operator will follow the procedures discussed in the Contingency Plan, Section 3, and Appendix 3-B of the Engineering Report.

## 2.10 SUCCESSORS OF INTEREST

Any person or corporation acquiring rights or ownership, possession or operation of the proposed Class III landfill will be subject to all the requirements of the permit for the proposed facility. Any lease or transfer of property will include the following conditions:

1. The previous owner or operator responsible for closure will maintain proof of financial responsibility with the FDEP and Pasco County.
2. State the party responsible for continuance of monitoring, maintenance, and correction of problems.
3. Mineral rights to any recoverable materials buried at the landfill. Disturbance of a closed landfill will require a Department permit.

## 2.11 COMPLETION OF LONG-TERM CARE

Upon completion of the landfill's long-term care period, the Operator will notify the FDEP and Pasco County that a Professional Engineer certification has been placed in the landfill's operating record verifying that long-term care has been completed in accordance with the approved Closure and Long-term Care Plans.

## 3.0 FINANCIAL RESPONSIBILITY

Upon approval of the application, the owner or operator will provide financial assurance documentation for closure and post-closure costs. This financial assurance documents will be submitted prior to permit being issued. See Section 7, Appendix 7-A for the Financial Assurance Cost estimates for the Class III landfill. A financial assurance mechanism will be fully funded prior to the acceptance of any solid wastes at the proposed landfill.

## 3.1 ANNUAL COST ADJUSTMENTS

The Operator of the landfill will submit an annual cost adjustment statement of closure and long-term care costs certified by a Professional Engineer to the FDEP and Pasco County. These cost estimates will be revised for inflation and any changes in closure or corrective action plans.

## **Exhibit 2**

### **Well Abandonment Documentation**





STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT,  
REPAIR, MODIFY, OR ABANDON A WELL

- ☒ Southwest  
☐ Northwest  
☐ St. Johns River  
☐ South Florida  
☐ Suwannee River  
☐ DEP  
☐ Delegated Authority (If Applicable)

PLEASE FILL OUT ALL APPLICABLE FIELDS  
(\*Denotes Required Fields Where Applicable)

The water well contractor is responsible for completing  
this form and forwarding the permit application to the  
appropriate delegated authority where applicable.

Permit No.	880461
Florida Unique ID	
Permit Stipulations Required (See Attached)	04
62-524 Quad No.	Q3518 Delineation No.
CUP/WUP Application No.	

ABOVE THIS LINE FOR OFFICIAL USE ONLY

1. ANGELOS AGGREGATE MATERIAL PO BOX 1493	LARGO	FL	33712	
*Owner, Legal Name if Corporation	*Address	*City	*State	*ZIP
2. 4111 Enterprise Rd	Dade City			
*Well Location - Address, Road Name or Number, City				
3. 2225050000005000031				
*Parcel ID No. (PIN) or Alternate Key (Circle One)				
4. 5	25	22	Pasco	
*Section or Land Grant	*Township	*Range	*County	Subdivision
Check if 62-524: Yes <input checked="" type="checkbox"/> No				
5. Willie Smitherman	11212	(954) 476-8333	jaee@bellsouth.net	
*Water Well Contractor	*License Number	*Telephone Number	E-mail Address	
6. 3101 PEACHTREE CIRCLE	DAVIE	FL	33328	
*Water Well Contractor's Address	*City	*State	*ZIP	
7. *Type of Work: Construction Repair Modification <input checked="" type="checkbox"/> Abandonment closure				
8. *Number of Proposed Wells 3				
9. *Specify Intended Use(s) of Well(s):				
Domestic Landscape Irrigation Agricultural Irrigation Site Investigation				
Bottled Water Supply Recreation Area Irrigation Livestock Monitoring				
Public Water Supply (Limited Use/DOH) Nursery Irrigation Test				
Public Water Supply (Community or Non-Community/DEP) Commercial/Industrial Earth-Coupled Geothermal				
Golf Course Irrigation HVAC Supply				
Class I Injection HVAC Return				
Class V Injection: Recharge Commercial/Industrial Disposal Aquifer Storage and Recovery Drainage				
Remediation: Recovery Air Sparge Other (Describe)				
<input checked="" type="checkbox"/> Other (Describe) PLUGGED (Note: Not all types of wells are permitted by a given permitting authority)				
10. *Distance from Septic System if $\leq 200$ ft. 11. Facility Description 12. Estimated Start Date 07/02/2019				
13. *Estimated Well Depth 80 ft. *Estimated Casing Depth 75.0 ft. *Primary Casing Diameter 2 in. Open Hole: From To ft.				
14. Estimated Screen Interval: From To ft.				
15. *Primary Casing Material: Black Steel Galvanized PVC Stainless Steel				
Not Cased Other:				
16. Secondary Casing: Telescope Casing Liner Surface Casing Diameter in.				
17. Secondary Casing Material: Black Steel Galvanized PVC Stainless Steel Other				
18. *Method of Construction, Repair, or Abandonment: Auger Cable Tool Jetted Rotary Sonic				
Combination (Two or More Methods) Hand Driven (Well Point, Sand Point) Hydraulic Point (Direct Push)				
Horizontal Drilling <input checked="" type="checkbox"/> Plugged by Approved Method Other (Describe)				
19. Proposed Grouting Interval for the Primary, Secondary, and Additional Casing:				
From To Seal Material ( Bentonite Neat Cement Other )				
From To Seal Material ( Bentonite Neat Cement Other )				
From To Seal Material ( Bentonite Neat Cement Other )				
From To Seal Material ( Bentonite Neat Cement Other )				
20. Indicate total number of existing wells on site 3 List number of existing unused wells on site 3				
21. *Is this well or any existing well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? Yes <input checked="" type="checkbox"/> No If yes, complete the following: CUP/WUP No. District Well ID No.				
22. Latitude 28 20 02.40 Longitude 82 08 08.74				
23. Data Obtained From: GPS <input checked="" type="checkbox"/> Map Survey Datum: NAD 27 <input checked="" type="checkbox"/> NAD 83 WGS 84				
I hereby certify that I will comply with the applicable rules of Title 40, Florida Administration Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided in this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after completion of the construction, repair, modification, or abandonment authorized by this permit, or the permit expiration, whichever occurs first.				
I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to allowing personnel of this WMD or Delegated Authority access to the well site during the construction, repair, modification, or abandonment authorized by this permit.				
Digitally Signed 11212 Digitally Signed 6/28/2019				
*Signature of Contractor *License No. *Signature of Owner or Agent *Date				

DO NOT WRITE BELOW THIS LINE - FOR OFFICIAL USE ONLY

Approval Granted By	Automatically Issued	Issue Date	06/28/2019	Expiration Date	09/26/2019	Hydrologist Approval	
Fee Received	\$ .00	Receipt No.		Check No.			

THIS PERMIT IS NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD OR DELEGATED AUTHORITY. THE PERMIT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL CONSTRUCTION, REPAIR, MODIFICATION, OR ABANDONMENT ACTIVITIES.

**SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT**  
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899  
PHONE: (352) 796-7211 or (800) 423-1476  
WWW.SWFWMD.STATE.FL.US

**ST. JOHNS RIVER WATER MANAGEMENT DISTRICT**  
4049 REID STREET, PALATKA, FL 32178-1429  
PHONE: (386) 329-4500  
WWW.SJRWMD.COM

**NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT**  
152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712  
(U.S. Highway 90, 10 miles west of Tallahassee)  
PHONE: (850) 539-5999  
WWW.NWFWMD.STATE.FL.US

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**  
P.O. BOX 24680  
3301 GUN CLUB ROAD  
WEST PALM BEACH, FL 33416-4680  
PHONE: (561) 686-8800  
WWW.SFWMD.GOV

**SUWANNEE RIVER WATER MANAGEMENT DISTRICT**  
9225 CR 49  
LIVE OAK, FL 32060  
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)  
WWW.MYSUWANNEERIVER.COM

Comments:

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General Site Map of Proposed Well Location



Identify known roads and landmarks. Give distances from all reference points or structures, septic systems, sanitary hazards, and contamination sources, if applicable.





# STATE OF FLORIDA WELL COMPLETION REPORT

☒ Southwest

☐ Northwest

☐ St. Johns River

☐ South Florida

☐ Suwannee River

☐ DEP

☐ Delegated Authority (If Applicable) \_\_\_\_\_

PLEASE, FILL OUT ALL APPLICABLE FIELDS  
(\*Denotes Required Fields Where Applicable)

Date Stamp

Received:

Jul 9, 2019 3:44 pm

Official Use Only

1. \*Permit Number **880461** \*CUP/WUP Number \_\_\_\_\_ \*DID Number \_\_\_\_\_ 62-524 Delineation No. \_\_\_\_\_

2. \*Number of permitted wells constructed, repaired, or abandoned **3** \*Number of permitted wells not constructed, repaired, or abandoned **0**

3. \*Owner's Name **ANGELOS AGGREGATE MATERIALS L** 4. \*Completion Date **07/03/2019** 5. Florida Unique ID \_\_\_\_\_

6. **4111 Enterprise Rd** **Dade City**

\*Well Location - Address, Road Name or Number, City, ZIP

7. \*County **Pasco** \*Section **5** Land Grant \_\_\_\_\_ \*Township **25** \*Range **22**

8. Latitude **28 20 01.14** Longitude **82 08 08.68**

9. Data Obtained From: \_\_\_\_\_ GPS ☒ Map \_\_\_\_\_ Survey \_\_\_\_\_ Datum: \_\_\_\_\_ NAD 27 ☒ NAD 83 \_\_\_\_\_ WGS 84

10. \*Type of Work: \_\_\_\_\_ Construction \_\_\_\_\_ Repair \_\_\_\_\_ Modification ☒ Abandonment

11. \*Specify Intended Use(s) of Well(s):

\_\_\_\_\_ Domestic \_\_\_\_\_ Landscape Irrigation \_\_\_\_\_ Agricultural Irrigation \_\_\_\_\_ Site Investigation  
\_\_\_\_\_ Bottled Water Supply \_\_\_\_\_ Recreation Area Irrigation \_\_\_\_\_ Livestock \_\_\_\_\_ Monitoring  
\_\_\_\_\_ Public Water Supply (Limited Use/DOH) \_\_\_\_\_ Nursery Irrigation \_\_\_\_\_ Test  
\_\_\_\_\_ Public Water Supply (Community or Non-Community/DEP) \_\_\_\_\_ Commercial/Industrial \_\_\_\_\_ Earth-Coupled Geothermal  
\_\_\_\_\_ Class I Injection \_\_\_\_\_ Golf Course Irrigation \_\_\_\_\_ HVAC Supply  
\_\_\_\_\_ HVAC Return

Class V Injection: \_\_\_\_\_ Recharge \_\_\_\_\_ Commercial/Industrial Disposal \_\_\_\_\_ Aquifer Storage and Recovery \_\_\_\_\_ Drainage

Remediation: \_\_\_\_\_ Recovery \_\_\_\_\_ Air Sparge \_\_\_\_\_ Other (Describe) \_\_\_\_\_

☒ Other (Describe) **PLUGGED**

12. \*Drill Method: \_\_\_\_\_ Auger \_\_\_\_\_ Cable Tool \_\_\_\_\_ Rotary \_\_\_\_\_ Combination (Two or More Methods) \_\_\_\_\_ Jetted \_\_\_\_\_ Sonic  
\_\_\_\_\_ Horizontal Drilling \_\_\_\_\_ Hydraulic Point (Direct Push) ☒ Other **PLUGGED BY APPROVED METHOD**

13. \*Measured Static Water Level **6.0** ft. Measured Pumping Water Level \_\_\_\_\_ ft. After \_\_\_\_\_ Hours at \_\_\_\_\_ GPM

14. \*Measuring Point (Describe) \_\_\_\_\_ Which is \_\_\_\_\_ ft. Above \_\_\_\_\_ Below Land Surface \*Flowing: \_\_\_\_\_ Yes \_\_\_\_\_ No

15. \*Casing Material: \_\_\_\_\_ Black Steel \_\_\_\_\_ Galvanized ☒ PVC \_\_\_\_\_ Stainless Steel \_\_\_\_\_ Not Cased \_\_\_\_\_ Other \_\_\_\_\_

16. \*Total Well Depth **81.0** ft. Cased Depth **81.0** ft. \*Open Hole: From \_\_\_\_\_ To \_\_\_\_\_ ft. \*Screen: From \_\_\_\_\_ To \_\_\_\_\_ ft. Slot Size \_\_\_\_\_

17. \*Abandonment: ☒ Other (Explain) **PLUGGED**

2" From 0.00 ft. To 81.00 ft. No. of Bags <b>8.00</b>	Seal Material (Check One): _____ Neat Cement _____ Bentonite <input checked="" type="checkbox"/> Other Slurry Grout _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

18. \*Surface Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

19. \*Primary Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

20. \*Liner Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

21. \*Telescope Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

22. Pump Type (If Known):

\_\_\_\_\_ Centrifugal \_\_\_\_\_ Jet \_\_\_\_\_ Submersible \_\_\_\_\_ Turbine

Horsepower \_\_\_\_\_ Pump Capacity (GPM) \_\_\_\_\_

Pump Depth \_\_\_\_\_ ft. Intake Depth \_\_\_\_\_ ft.

23. Chemical Analysis (When Required):

Iron \_\_\_\_\_ ppm Sulfate \_\_\_\_\_ ppm Chloride \_\_\_\_\_ ppm

\_\_\_\_\_ Laboratory Test \_\_\_\_\_ Field Test Kit

24. Water Well Contractor:

\*Contractor Name **Willie Smitherman** \*License Number **11212** E-mail Address **jaee@bellsouth.net**

\*Contractor's Signature **Digitally Signed**

(I certify that the information provided in this report is accurate and true.)

\*Driller's Name (Print or Type) **Robert Crowfoot**

WWW.SWFWMD.STATE.FL.US

WWW.SJRWMD.COM

WWW.NWFWMD.STATE.FL.US

WWW.SFWMD.GOV

WWW.MYSUWANNEERIVER.COM

\***DRILL CUTTINGS LOG** (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine, M=Medium, and C=Coarse)

[illegible]

Comments: Finish: PLUGGED

**\*Detailed Site Map of Well Location**



Give distances from all reference points or structures, septic systems, sanitary hazards, and contamination sources within 500 ft. of well.





# STATE OF FLORIDA WELL COMPLETION REPORT

☒ Southwest

☐ Northwest

☐ St. Johns River

☐ South Florida

☐ Suwannee River

☐ DEP

☐ Delegated Authority (If Applicable) \_\_\_\_\_

PLEASE, FILL OUT ALL APPLICABLE FIELDS  
(\*Denotes Required Fields Where Applicable)

Date Stamp

Received:

Jul 9, 2019 3:44 pm

Official Use Only

1. \*Permit Number **880461** \*CUP/WUP Number \_\_\_\_\_ \*DID Number \_\_\_\_\_ 62-524 Delineation No. \_\_\_\_\_

2. \*Number of permitted wells constructed, repaired, or abandoned **3** \*Number of permitted wells not constructed, repaired, or abandoned **0**

3. \*Owner's Name **ANGELOS AGGREGATE MATERIALS L** 4. \*Completion Date **07/03/2019** 5. Florida Unique ID \_\_\_\_\_

6. **4111 Enterprise Rd** **Dade City**

\*Well Location - Address, Road Name or Number, City, ZIP

7. \*County **Pasco** \*Section **5** Land Grant \_\_\_\_\_ \*Township **25** \*Range **22**

8. Latitude **28 20 01.08** Longitude **82 08 06.97**

9. Data Obtained From: \_\_\_\_\_ GPS ☒ Map \_\_\_\_\_ Survey \_\_\_\_\_ Datum: \_\_\_\_\_ NAD 27 ☒ NAD 83 \_\_\_\_\_ WGS 84

10. \*Type of Work: \_\_\_\_\_ Construction \_\_\_\_\_ Repair \_\_\_\_\_ Modification ☒ Abandonment

11. \*Specify Intended Use(s) of Well(s):

\_\_\_\_\_ Domestic \_\_\_\_\_ Landscape Irrigation \_\_\_\_\_ Agricultural Irrigation \_\_\_\_\_ Site Investigation  
\_\_\_\_\_ Bottled Water Supply \_\_\_\_\_ Recreation Area Irrigation \_\_\_\_\_ Livestock \_\_\_\_\_ Monitoring  
\_\_\_\_\_ Public Water Supply (Limited Use/DOH) \_\_\_\_\_ Nursery Irrigation \_\_\_\_\_ Test  
\_\_\_\_\_ Public Water Supply (Community or Non-Community/DEP) \_\_\_\_\_ Commercial/Industrial \_\_\_\_\_ Earth-Coupled Geothermal  
\_\_\_\_\_ Class I Injection \_\_\_\_\_ Golf Course Irrigation \_\_\_\_\_ HVAC Supply  
\_\_\_\_\_ HVAC Return

Class V Injection: \_\_\_\_\_ Recharge \_\_\_\_\_ Commercial/Industrial Disposal \_\_\_\_\_ Aquifer Storage and Recovery \_\_\_\_\_ Drainage

Remediation: \_\_\_\_\_ Recovery \_\_\_\_\_ Air Sparge \_\_\_\_\_ Other (Describe) \_\_\_\_\_

☒ Other (Describe) **PLUGGED**

12. \*Drill Method: \_\_\_\_\_ Auger \_\_\_\_\_ Cable Tool \_\_\_\_\_ Rotary \_\_\_\_\_ Combination (Two or More Methods) \_\_\_\_\_ Jetted \_\_\_\_\_ Sonic  
\_\_\_\_\_ Horizontal Drilling \_\_\_\_\_ Hydraulic Point (Direct Push) ☒ Other **PLUGGED BY APPROVED METHOD**

13. \*Measured Static Water Level **6.0** ft. Measured Pumping Water Level \_\_\_\_\_ ft. After \_\_\_\_\_ Hours at \_\_\_\_\_ GPM

14. \*Measuring Point (Describe) \_\_\_\_\_ Which is \_\_\_\_\_ ft. Above \_\_\_\_\_ Below Land Surface \*Flowing: \_\_\_\_\_ Yes \_\_\_\_\_ No

15. \*Casing Material: \_\_\_\_\_ Black Steel \_\_\_\_\_ Galvanized ☒ PVC \_\_\_\_\_ Stainless Steel \_\_\_\_\_ Not Cased \_\_\_\_\_ Other \_\_\_\_\_

16. \*Total Well Depth **45.0** ft. Cased Depth **14.0** ft. \*Open Hole: From \_\_\_\_\_ To \_\_\_\_\_ ft. \*Screen: From \_\_\_\_\_ To \_\_\_\_\_ ft. Slot Size \_\_\_\_\_

17. \*Abandonment: ☒ Other (Explain) **PLUGGED**

2" From 0.00 ft. To 14.00 ft. No. of Bags 1.00	Seal Material (Check One): _____ Neat Cement _____ Bentonite <input checked="" type="checkbox"/> Other Slurry Grout _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

18. \*Surface Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

19. \*Primary Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

20. \*Liner Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

21. \*Telescope Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

22. Pump Type (If Known):

\_\_\_\_\_ Centrifugal \_\_\_\_\_ Jet \_\_\_\_\_ Submersible \_\_\_\_\_ Turbine

Horsepower \_\_\_\_\_ Pump Capacity (GPM) \_\_\_\_\_

Pump Depth \_\_\_\_\_ ft. Intake Depth \_\_\_\_\_ ft.

23. Chemical Analysis (When Required):

Iron \_\_\_\_\_ ppm Sulfate \_\_\_\_\_ ppm Chloride \_\_\_\_\_ ppm

\_\_\_\_\_ Laboratory Test \_\_\_\_\_ Field Test Kit

24. Water Well Contractor:

\*Contractor Name **Willie Smitherman** \*License Number **11212** E-mail Address **jaee@bellsouth.net**

\*Contractor's Signature **Digitally Signed**

\*Driller's Name (Print or Type) **Robert Crowfoot**

(I certify that the information provided in this report is accurate and true.)







# STATE OF FLORIDA WELL COMPLETION REPORT

☒ Southwest

☐ Northwest

☐ St. Johns River

☐ South Florida

☐ Suwannee River

☐ DEP

☐ Delegated Authority (If Applicable) \_\_\_\_\_

PLEASE, FILL OUT ALL APPLICABLE FIELDS  
(\*Denotes Required Fields Where Applicable)

Date Stamp

Received:

Jul 9, 2019 3:44 pm

Official Use Only

1. \*Permit Number 880461 \*CUP/WUP Number \_\_\_\_\_ \*DID Number \_\_\_\_\_ 62-524 Delineation No. \_\_\_\_\_

2. \*Number of permitted wells constructed, repaired, or abandoned 3 \*Number of permitted wells not constructed, repaired, or abandoned 0

3. \*Owner's Name ANGELOS AGGREGATE MATERIALS L 4. \*Completion Date 07/03/2019 5. Florida Unique ID \_\_\_\_\_

6. 4111 Enterprise Rd Dade City

\*Well Location - Address, Road Name or Number, City, ZIP

7. \*County Pasco \*Section 5 Land Grant \_\_\_\_\_ \*Township 25 \*Range 22

8. Latitude 28 20 03.03 Longitude 82 08 09.24

9. Data Obtained From: \_\_\_\_\_ GPS ☒ Map \_\_\_\_\_ Survey \_\_\_\_\_ Datum: \_\_\_\_\_ NAD 27 ☒ NAD 83 \_\_\_\_\_ WGS 84

10. \*Type of Work: \_\_\_\_\_ Construction \_\_\_\_\_ Repair \_\_\_\_\_ Modification ☒ Abandonment

11. \*Specify Intended Use(s) of Well(s):

\_\_\_\_\_ Domestic \_\_\_\_\_ Landscape Irrigation \_\_\_\_\_ Agricultural Irrigation \_\_\_\_\_ Site Investigation  
\_\_\_\_\_ Bottled Water Supply \_\_\_\_\_ Recreation Area Irrigation \_\_\_\_\_ Livestock \_\_\_\_\_ Monitoring  
\_\_\_\_\_ Public Water Supply (Limited Use/DOH) \_\_\_\_\_ Nursery Irrigation \_\_\_\_\_ Test  
\_\_\_\_\_ Public Water Supply (Community or Non-Community/DEP) \_\_\_\_\_ Commercial/Industrial \_\_\_\_\_ Earth-Coupled Geothermal  
\_\_\_\_\_ Class I Injection \_\_\_\_\_ Golf Course Irrigation \_\_\_\_\_ HVAC Supply  
\_\_\_\_\_ HVAC Return

Class V Injection: \_\_\_\_\_ Recharge \_\_\_\_\_ Commercial/Industrial Disposal \_\_\_\_\_ Aquifer Storage and Recovery \_\_\_\_\_ Drainage

Remediation: \_\_\_\_\_ Recovery \_\_\_\_\_ Air Sparge \_\_\_\_\_ Other (Describe) \_\_\_\_\_

☒ Other (Describe) PLUGGED

12. \*Drill Method: \_\_\_\_\_ Auger \_\_\_\_\_ Cable Tool \_\_\_\_\_ Rotary \_\_\_\_\_ Combination (Two or More Methods) \_\_\_\_\_ Jetted \_\_\_\_\_ Sonic  
\_\_\_\_\_ Horizontal Drilling \_\_\_\_\_ Hydraulic Point (Direct Push) ☒ Other PLUGGED BY APPROVED METHOD

13. \*Measured Static Water Level 6.0 ft. Measured Pumping Water Level \_\_\_\_\_ ft. After \_\_\_\_\_ Hours at \_\_\_\_\_ GPM

14. \*Measuring Point (Describe) \_\_\_\_\_ Which is \_\_\_\_\_ ft. Above \_\_\_\_\_ Below Land Surface \*Flowing: \_\_\_\_\_ Yes \_\_\_\_\_ No

15. \*Casing Material: \_\_\_\_\_ Black Steel \_\_\_\_\_ Galvanized ☒ PVC \_\_\_\_\_ Stainless Steel \_\_\_\_\_ Not Cased \_\_\_\_\_ Other \_\_\_\_\_

16. \*Total Well Depth 14.0 ft. Cased Depth 14.0 ft. \*Open Hole: From \_\_\_\_\_ To \_\_\_\_\_ ft. \*Screen: From \_\_\_\_\_ To \_\_\_\_\_ ft. Slot Size \_\_\_\_\_

17. \*Abandonment: ☒ Other (Explain) PLUGGED

2" From <u>0.00</u> ft. To <u>14.00</u> ft. No. of Bags <u>1.00</u>	Seal Material (Check One): _____ Neat Cement _____ Bentonite <input checked="" type="checkbox"/> Other Slurry Grout _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

18. \*Surface Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

19. \*Primary Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

20. \*Liner Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

21. \*Telescope Casing Diameter and Depth:

Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____	Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

22. Pump Type (If Known):

\_\_\_\_\_ Centrifugal \_\_\_\_\_ Jet \_\_\_\_\_ Submersible \_\_\_\_\_ Turbine

Horsepower \_\_\_\_\_ Pump Capacity (GPM) \_\_\_\_\_

Pump Depth \_\_\_\_\_ ft. Intake Depth \_\_\_\_\_ ft.

23. Chemical Analysis (When Required):

Iron \_\_\_\_\_ ppm Sulfate \_\_\_\_\_ ppm Chloride \_\_\_\_\_ ppm

\_\_\_\_\_ Laboratory Test \_\_\_\_\_ Field Test Kit

24. Water Well Contractor:

\*Contractor Name Willie Smitherman \*License Number 11212 E-mail Address jaee@bellsouth.net

\*Contractor's Signature Digitally Signed

\*Driller's Name (Print or Type) Robert Crowfoot

(I certify that the information provided in this report is accurate and true.)





## **SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT**

### **STIPULATION # 4 - PLUGGING**

A. The well shall be examined from land surface to the original depth of construction for debris or obstructions. Any debris or obstruction shall be removed from the well prior to the commencement of plugging operations.

B. The well shall be plugged from bottom to top by an approved method of grouting with either Portland neat cement grout or an approved Bentonite product as specified in 40D-3.517(2)(b) and described as follows:

1. A Bentonite grout shall consist of a high solid sodium montmorillonite. The grout shall yield solids ranging from 20 to 30 percent, with a minimum density equal to or greater than 9.4 pounds per gallon, and a permeability of approximately  $1 \times 10^{-7}$  centimeters per second or less.

2. Bentonite grout used for abandonment purposes is not restricted by well size but cannot be used to abandon a dry well and cannot be placed any higher in the well than the height of the static water level. Any unsealed remainder above the height of the static water level must be filled with neat cement. At a minimum, an upper ten feet of neat cement is required to prevent deterioration of or damage to the bentonite seal.

C. Any other method of abandonment shall be approved in advance by the Southwest Florida Water Management District (SWFWMD) Well Construction Section Manager or Well Construction Section Geologist, in the District's Tampa Office, at (813)985-7481 or 1-800-836-0797.

D. Well plugging operations shall be observed by a designated SWFWMD representative from the local Regulation Department. Arrangement for an observer shall be made a minimum of 24 hours in advance of these operations. A District representative will be available for assignment during normal working hours (8:00 AM - 4:30 PM), Monday through Friday. Travel time must be taken into consideration. Exemptions may be made for extenuating circumstances. For scheduling, please contact the Field Service Supervisor, in the Brooksville Office at (352) 796-7211.

Permit No. 880461

**COPY TO OWNER TO BE PROVIDED BY CONTRACTOR**

**(11/03)**

P:\P Drive Files\ANGELOS (FLORIDA)\Enterprise Class III\COMPLIANCE MONITORING\Permit Renewal\2017 Major Permit Mod Cell 17\RAI1\Supplemental Info-April 2019\SECTION 5 - Groundwater Monitoring Plan\Figure 1\_RAI1.dwg PLOT DATE 5/29/2019 9:14 AM BY LJB

LEGEND

- BW-1B

BACKGROUND MONITORING WELL LOCATION
- MW-7A

DETECTION MONITORING WELL LOCATION
- MW-23B

PROPOSED DETECTION MONITORING WELL LOCATION
- SUPPLY WELL LOCATION
- P-11

SOLID WASTE PIEZOMETER WELL LOCATION
- MW-12A

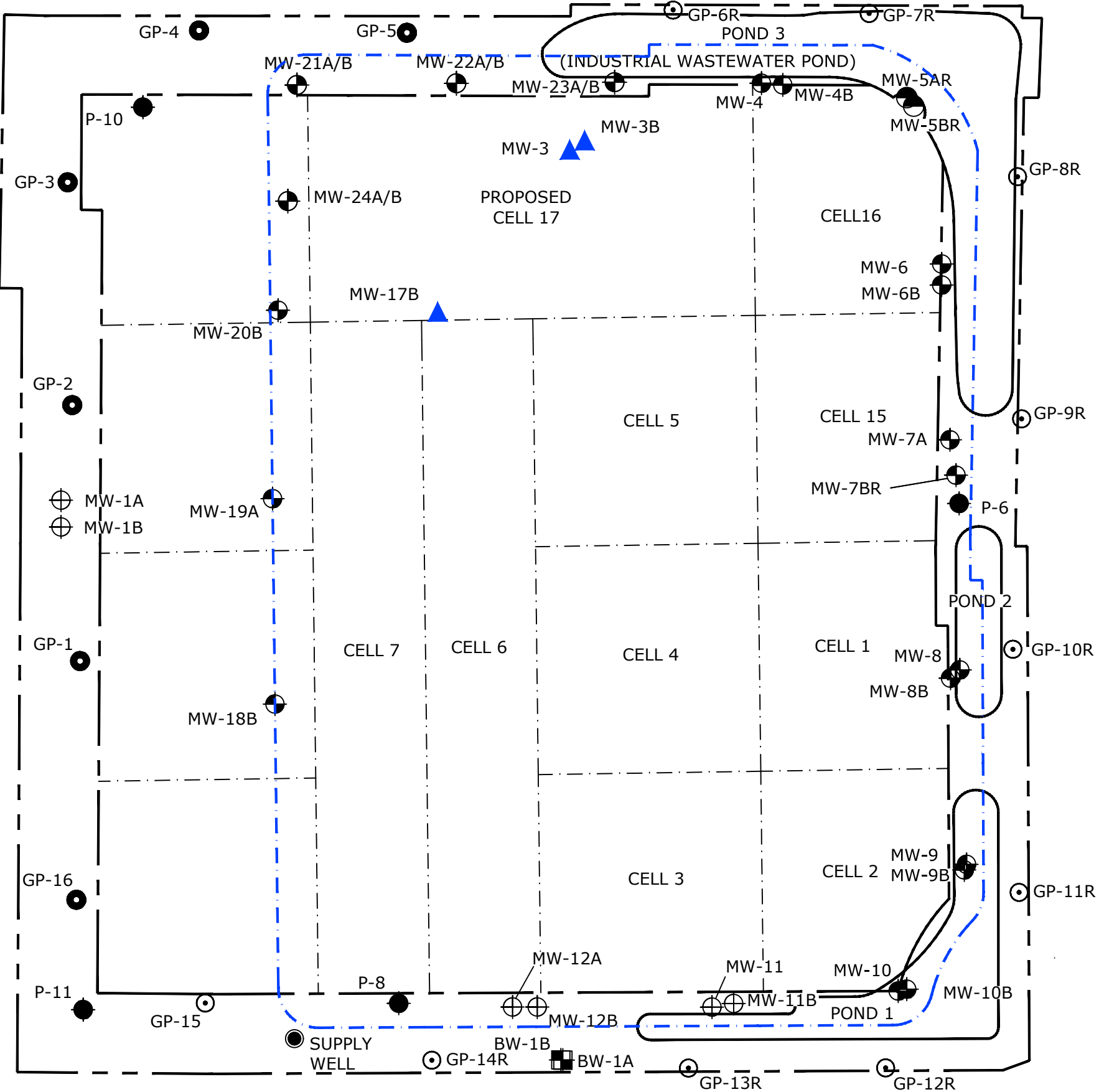
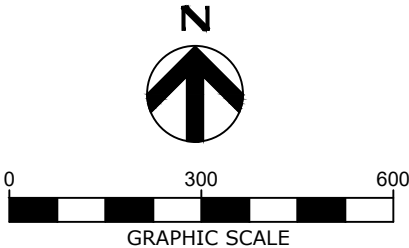
WATER LEVEL ONLY WELL LOCATION
- MW-3

PROPOSED TO BE ABANDONED
- MW-5AR

COMPLIANCE MONITORING WELL LOCATION
- GP-1

GAS PROBE LOCATION
- GP-8R

FUTURE GAS PROBE LOCATION
- PROPERTY BOUNDARY
- LANDFILL LIMITS
- CELL BOUNDARY
- ZONE OF DISCHARGE



NO.	DATE	REVISION DESCRIPTION	BY
1	05.29.19	Figure 1 updated in accordance in 2018 permit renewal revisions	WW



4140 NW 37th Place, Suite A  
Gainesville, Florida 32606  
Phone: 352.672.6867 Fax: 352.692.5390  
Certificate of Authorization No. 30066

PROJECT TITLE:  
**ENTERPRISE ROAD CLASS III  
RECYCLING AND DISPOSAL FACILITY  
DADE CITY, FLORIDA**

LISA J. BAKER	DESIGNED BY	LJB
	DRAWN BY	LJB
	CHECKED BY	JDL
FL PE NO. 74652	APPROVED BY	LJB

SHEET TITLE: <b>SITE MAP</b>	PROJECT NO.: 02000-144-14
	SCALE: AS SHOWN
	DATE: MAY 2019
	DRAWING: <b>FIGURE 1</b>