



June 5, 2015

Ms. Kimberly Rush, P.E.
Florida Department of Environmental Protection
Central District Office
3319 Maquire Boulevard, Suite 232
Orlando, Florida 32803-3767

RE: Financial Assurance Cost Estimates Update – Construction of Cell 11 Disposal Area

Dear Ms. Rush:

Please find included with this letter one electronic copy of the J.E.D. Solid Waste Management Facility (JED facility) financial assurance update for the construction of the Cell 11 disposal area. This update is submitted on behalf of Omni Waste of Osceola County for the JED facility located at 1501 Omni Way, Saint Cloud, FL 34773.

This submittal includes:

- A Report Narrative (Introduction, Background, and Financial Assurance Cost Estimate)
- Closure Cost Estimating Form for Solid Waste Facilities - DEP Form # 62-701.900(28)
- Notes and Calculations

Please review the attached information and if you have any questions or require additional information, please contact me at 863-226-6857 or bo.conerly@kimley-horn.com.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Bo Conerly', with a large, stylized 'B' and 'C'.

Robert "Bo" Conerly, P.E.
Senior Project Manager

Copy: Mr. Mike Kaiser, Omni Waste of Osceola County, LLC

FINANCIAL ASSURANCE COST ESTIMATES UPDATE CONSTRUCTION OF CELL 11 DISPOSAL AREA

Facility Name: **J.E.D. SOLID WASTE MANAGEMENT FACILITY**
Facility Location: **1501 Omni Way, St. Cloud, Florida 34773**
Facility Owner: **Omni Waste of Osceola County, LLC**
FDEP Permit No. **SC49-0199726-020**

Prepared for:



**OMNI WASTE OF OSCEOLA COUNTY,
LLC**
1501 Omni Way
St. Cloud, Florida, 34773
Attention: Mr. Mike Kaiser
Regional Engineer

Revised with assistance from:

Kimley»Horn

**116 South Kentucky Avenue
Lakeland, Florida 33801
Telephone: (863) 226-6857
www.kimley-horn.com**

**Attention: Robert “Bo” Conerly, P.E.
bo.conerly@kimley-horn.com**

KHA Project No. 148036042

May 2015

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**FINANCIAL ASSURANCE UPDATE
J.E.D. SOLID WASTE MANAGEMENT FACILITY
OSCEOLA COUNTY, FLORIDA**

I. INTRODUCTION

On behalf of Omni Waste of Osceola County, LLC (Omni), Kimley-Horn and Associates, Inc. (KHA) has prepared this report with supporting documentation to provide an update to the closure and long-term care cost estimates for the J.E.D. Solid Waste Management Facility (JED facility) located in Osceola County, Florida. The closure and long-term care cost estimates for the JED facility are being updated to account for the construction of the Cell 11 disposal area at the JED facility.

The JED facility is owned and operated by Omni Waste of Osceola County, LLC (Omni), which is a Progressive Waste Solutions company. This report is submitted to the Florida Department of Environmental Protection (FDEP), Central District on behalf of Omni to comply with the requirements of Specific Condition F.1 of FDEP Solid Waste Permit No. SO49-0199726-022 and provides updated closure and long-term care cost estimates for the JED facility. Appendix A includes FDEP Form 62-701.900(28) (Closure Cost Estimating Form for Solid Waste Facilities) and Appendix B includes the financial assurance notes and calculations.

II. PROJECT BACKGROUND

The current 5-year construction and operation permit authorizes the development of Phases 1 through 4 of the JED facility. Phase 1 consists of four cells, Cells 1 through 4, and has a footprint of approximately 53 acres. Phase 2 consists of three cells, Cells 5 through 7, and has a footprint of approximately 36 acres. Phase 3 consists of three cells, Cells 8 through 10, and has a footprint of approximately 37 acres. Phase 4 consists of three cells, Cells 11 through 13, and has a footprint of approximately 47 acres. The combined footprint of Phases 1 through 4 is approximately 173 acres. To date, Cells 1 through 10 have been constructed and Cell 11 is under construction and estimated to be completed by June 31, 2015. Start-up of waste disposal operations in Cell 11 are anticipated shortly thereafter.

The Phase 1 disposal area was partially closed in 2009 and included side slopes from the toe of Cells 1 through 4 up to an approximate elevation of 180 feet National Geodetic Vertical Datum (NGVD) and were certified by FDEP on March 16, 2010. Closure activities for approximately 19.4



acres of the remaining side slope (i.e., 17.9 acres) and top deck (i.e., 1.5 acres) areas of the Phase 1 disposal area were substantially completed in 2012 and documented in the October 30, 2012 Construction Quality Assurance Certification Report prepared by Weaver Boos Consultants and submitted to the FDEP.

The existing financial assurance cost estimates were approved by the FDEP for the JED facility as part of the recent 5 year Solid Waste Operation Permit renewal application titled “Renewal Permit Application to Operate Phases 1 through 4 of the J.E.D. Solid Waste Management Facility” that was approved on January 7, 2013. As noted in the Financial Assurance update prepared by Geosyntec in July of 2013 for the Cell 9 Disposal Area titled “Update to Financial Assurance Cost Estimate Due to the Construction of the Cell 9 Disposal Area” (Cell 9 Financial Assurance Update), the long-term care unit rate costs associated with the Phased Financial Assurance Update, approved on January 7, 2013, were adjusted to account for a 2% annual inflation factor issued by the FDEP such that both the closure and long-term care costs were consistent with the 2013 Financial Assurance rates. As noted in the Financial Assurance update prepared by Kimley-Horn in May of 2014 for the Cell 10 Disposal Area titled “Financial Assurance Cost Estimates Update – Construction of Cell 10 Disposal Area” (Cell 10 Financial Assurance Update), the long-term care and closure unit rate costs associated with the approved Cell 9 Financial Assurance Update were adjusted to account for a 1.7% annual inflation factor issued by the FDEP such that both the closure and long-term care costs were consistent with the 2014 Financial Assurance rates.

Currently, the Cell 11 disposal area – subject of this report – is under construction. This report provides revised financial assurance cost estimates to account for the closure and long-term costs resulting from the Cell 11 disposal area construction.

III. FINANCIAL ASSURANCE COST ESTIMATE

As previously stated, this report is submitted to provide an update to the financial assurance cost estimate for the JED facility to account for the Cell 11 disposal area. FDEP Form 62-701.900(28) is included in Appendix A and the notes and calculations presented in Appendix B. The closure and long-term care costs for Cell 11 were estimated using the May 2014 Cell 10 Financial Assurance Update that was approved by the FDEP on May 15, 2014. A 2015 annual inflation



adjustment of 1.5% was applied to the May 2014 Cell 10 long term care and closure cost unit rates.

Closure and long-term care costs associated with Cells 1 through 10 are not affected by the Cell 11 construction. Therefore, only closure and long-term care costs associated with the Cell 11 construction are provided. The notes and calculations presented in Appendix B provide the closure and long-term cost estimates for Cell 11 and have been summarized in the table below.

Cell Identification	Closure Cost Estimate	Long-Term Care Cost Estimate	Financial Assurance Cost Estimate
Cells 1 – 10	\$11,282,122.50	\$10,128,620.29	\$21,410,742.79
Cell 11	\$1,544,896.32	\$960,178.68	\$2,505,075.00
Totals	\$12,827,018.82	\$11,088,798.97	\$23,915,817.79

Omni will provide FDEP with an insurance certificate for the revised financial assurance cost estimate of **\$23,915,817.79** upon written approval of this revised closure cost estimate.

APPENDIX A

FDEP FORM 62-701.900(28)



Florida Department of Environmental Protection

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

DEP Form # 62-701.900(28), F.A.C.

Form Title: Closure Cost Estimating Form
For Solid Waste Facilities

Effective Date: January 6, 2010

Incorporated in Rule 62-701.630(3), F.A.C.

CLOSURE COST ESTIMATING FORM FOR SOLID WASTE FACILITIES

Date of DEP Approval: _____

I. GENERAL INFORMATION:

Facility Name: J.E.D. Solid Waste Management Facility WACS ID: 89544
 Permit Application or Consent Order No.: SC49-0199726-020 Expiration Date: 8/16/2016
 Facility Address: 1501 Omni Way, Saint Cloud, Florida 34773
 Permittee or Owner/Operator: Omni Waste of Osceola County, LLC
 Mailing Address: 1501 Omni Way, Saint Cloud, Florida 34773

Latitude: 28 ° 03 ' 32 " Longitude: 81 ° 05 ' 46 "
 Coordinate Method: DGPS Datum: WGS84
 Collected by: Johnston's Surveying Company/Affiliation: Johnston's Surveying

Solid Waste Disposal Units Included in Estimate:

Phase / Cell	Acres	Date Unit Began Accepting Waste	Active Life of Unit From Date of Initial Receipt of Waste	If active: Remaining life of unit	If closed: Date last waste received	If closed: Official date of closing
Phase 4/Cell 11	11.43	NA	2 - 3 years			

Total disposal unit acreage included in this estimate: Closure: 11.43 Long-Term Care: 11.43

Facility type: ☒ Class I ☐ Class III ☐ C&D Debris Disposal
 (Check all that apply) ☐ Other: _____

II. TYPE OF FINANCIAL ASSURANCE DOCUMENT (Check type)

- ☐ Letter of Credit* ☒ Insurance Certificate ☐ Escrow Account
☐ Performance Bond* ☐ Financial Test ☐ Form 29 (FA Deferral)
☐ Guarantee Bond* ☐ Trust Fund Agreement

* - Indicates mechanisms that require the use of a Standby Trust Fund Agreement

Northwest District
160 Government Center
Pensacola, FL 32502-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. B200
Jacksonville, FL 32256-7590
904-807-3300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
13051 N. Telecom Pky.
Temple Terrace, FL 33637
813-632-7600

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
239-332-6975

Southeast District
400 N. Congress Ave., Ste. 200
West Palm Beach, FL 33401
561-681-6600

III. ESTIMATE ADJUSTMENT

40 CFR Part 264 Subpart H as adopted by reference in Rule 62-701.630, Florida Administrative Code, (F.A.C.) sets forth the method of annual cost estimate adjustment. Cost estimates may be adjusted by using an inflation factor or by recalculating the maximum costs of closure in current dollars. Select one of the methods of cost estimate adjustment below.

☐ (a) Inflation Factor Adjustment

☒ (b) Recalculated or New Cost Estimates

Inflation adjustment using an inflation factor may only be made when a Department approved closure cost estimate exists and no changes have occurred in the facility operation which would necessitate modification to the closure plan. The inflation factor is derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The inflation factor may also be obtained from the Solid Waste website www.dep.state.fl.us/waste/categories/swfr or call the Financial Coordinator at (850) 245-8706.

This adjustment is based on the Department approved closing cost estimate dated:

Latest Department Approved Closing Cost Estimate:	Current Year Inflation Factor, e.g. 1.02	Inflation Adjusted Closing Cost Estimate:
_____	× _____	= _____

This adjustment is based on the Department approved long-term care cost estimate dated:

Latest Department Approved Annual Long-Term Care Cost Estimate:	Current Year Inflation Factor, e.g. 1.02	Inflation Adjusted Annual Long-Term Care Cost Estimate:
_____	× _____	= _____

Number of Years of Long Term Care Remaining:	×	_____
--	---	-------

Inflation Adjusted Long-Term Care Cost Estimate:	=	_____
--	---	-------

Signature by: ☐ Owner/Operator ☒ Engineer (check what applies)

Signature

Address

Name & Title

City, State, Zip Code

Date

E-Mail Address

Telephone Number

IV. ESTIMATED CLOSING COST (check what applies)

☐ **Recalculated Cost Estimate**

☒ **New Facility Cost Estimate**

Notes: 1. Cost estimates for the time period when the extent and manner of landfill operation makes closing most exp

2. Cost estimate must be certified by a professional engineer.

3. Cost estimates based on third party suppliers of material, equipment and labor at fair market value.

4. In some cases, a price quote in support of individual item estimates may be required.

Description	Unit	Number of Units	Cost / Unit	Total Cost
1. Proposed Monitoring Wells (Do not include wells already in existence.)				
	EA	0	\$0.00	
Subtotal Proposed Monitoring Wells:				
2. Slope and Fill (bedding layer between waste and barrier layer):				
Excavation	CY			
Placement and Spreading	CY	19,344	\$4.75	\$91,884.00
Compaction	CY			
Off-Site Material	CY			
Delivery	CY			
Subtotal Slope and Fill:				\$91,884.00
3. Cover Material (Barrier Layer):				
Off-Site Clay	CY			
Synthetics - 40 mil	SY	58,032	\$3.72	\$215,879.04
Synthetics - GCL	SY			
Synthetics - Geonet	SY			
Synthetics - Other (explain)	SY	56,580	\$4.06	\$229,714.80
Subtotal Cover Material:				\$445,593.84
4. Top Soil Cover:				
Off-Site Material	CY			
Delivery	CY			
Spread	CY	29,016	\$4.80	\$139,276.80
Subtotal Top Soil Cover:				\$139,276.80
5. Vegetative Layer				
Sodding	SY	58,032	\$1.29	\$74,861.28
Hydroseeding	AC			
Fertilizer	AC	11.99	\$1,095.55	\$13,135.64
Mulch	AC			
Other (explain)	CY	9,672	\$4.80	\$46,425.60
Subtotal Vegetative Layer:				\$134,422.52
6. Stormwater Control System:				
Earthwork	CY	3,129	\$4.80	\$15,019.20
Grading	SY			
Piping	LF	5,680	\$15.63	\$88,778.40
Ditches	LF			
Berms	LF			
Control Structures	EA	3	\$903.23	\$2,709.69
Other (explain)"Wye" connection	EA	22	\$2,365.41	\$52,039.02
Subtotal Stormwater Control System:				\$158,546.31

Description	Unit	Number of Units	Cost / Unit	Total Cost
7. Passive Gas Control:				
Wells	EA	15	\$8,562.72	\$128,440.80
Pipe and Fittings	LF	3,398	\$29.93	\$101,702.14
Monitoring Probes	EA			
NSPS/Title V requirements	LS	1		
Subtotal Passive Gas Control:				\$230,142.94
8. Active Gas Extraction Control:				
Traps	EA			
Sumps	EA			
Flare Assembly	EA			
Flame Arrestor	EA			
Mist Eliminator	EA			
Flow Meter	EA			
Blowers	EA			
Collection System	LF			
Other (explain) _____				
Subtotal Active Gas Extraction Control:				
9. Security System:				
Fencing	LF			
Gate(s)	EA			
Sign(s)	EA			
Subtotal Security System:				
10. Engineering:				
Closure Plan Report	LS	1		
Certified Engineering Drawings	LS	1		
NSPS/Title V Air Permit	LS	1		
Final Survey	LS	1	\$21,659.34	\$21,659.34
Certification of Closure	LS	1		
Other (explain) _____				
Subtotal Engineering:				\$21,659.34

Description	Hours	Cost / Hour	Hours	Cost / Hour	Total Cost
11. Professional Services					
	<u>Contract Management</u>		<u>Quality Assurance</u>		
P.E. Supervisor					
On-Site Engineer					
Office Engineer					
On-Site Technician					
Other (explain) _____	1	\$35,994	1	\$83,994	\$119,987.00

Description	Unit	Number of Units	Cost / Unit	Total Cost
Quality Assurance Testing	LS	1	\$8,399.06	\$8,399.06
Subtotal Professional Services:				\$128,386.06

Subtotal of 1-11 Above: \$1,349,911.81

12. Contingency	<u>10</u>	% of Subtotal of 1-11 Above	<u>\$134,991.18</u>
		Subtotal Contingency:	\$134,991.18

Estimated Closing Cost Subtotal: \$1,484,903.00

Description	Total Cost
13. Site Specific Costs	
Mobilization	\$59,993.32
Waste Tire Facility	
Materials Recovery Facility	
Special Wastes	
Leachate Management System Modification	
Other (explain) _____	
Subtotal Site Specific Costs:	\$59,993.32

TOTAL ESTIMATED CLOSING COSTS (\$): \$1,544,896.32

V. ANNUAL COST FOR LONG-TERM CARE

See 62-701.600(1)a.1., 62-701.620(1), 62-701.630(3)a. and 62-701.730(11)b. F.A.C. for required term length. For landfills certified closed and Department accepted, enter the remaining long-term care length as "Other" and provide years remaining.

(Check Term Length) ☐ 5 Years ☐ 20 Years ☒ 30 Years ☐ Other, ____ Years

Notes: 1. Cost estimates must be certified by a professional engineer.

2. Cost estimates based on third party suppliers of material, equipment and labor at fair market value.

3. In some cases, a price quote in support of individual item estimates may be required.

All items must be addressed. Attach a detailed explanation for all entries left blank.

Description	Sampling Frequency (Events / Year)	Number of Wells	(Cost / Well) / Event	Annual Cost
1. Groundwater Monitoring [62-701.510(6), and (8)(a)]				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Groundwater Monitoring:				_____
2. Surface Water Monitoring [62-701.510(4), and (8)(b)]				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Surface Water Monitoring:				_____
3. Gas Monitoring [62-701.400(10)]				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Gas Monitoring:				_____
4. Leachate Monitoring [62-701.510(5), (6)(b) and 62-701.510(8)c]				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	1	\$974.99	\$974.99
Other (explain) _____	_____	_____	_____	_____
Subtotal Leachate Monitoring:				\$974.99

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
5. Leachate Collection/Treatment Systems Maintenance				
<u>Maintenance</u>				
Collection Pipes	LF	_____	_____	_____
Sumps, Traps	EA	1	\$903.56	\$903.56
Lift Stations	EA	_____	_____	_____
Cleaning	LS	1	\$975.68	\$975.68
Tanks	EA	_____	_____	_____

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
5. (continued)				
<u>Impoundments</u>				
Liner Repair	SY	_____	_____	_____
Sludge Removal	CY	_____	_____	_____
<u>Aeration Systems</u>				
Floating Aerators	EA	_____	_____	_____
Spray Aerators	EA	_____	_____	_____
<u>Disposal</u>				
Off-site (Includes transportation and disposal)	1000 gallon	_____	_____	_____
Subtotal Leachate Collection / Treatment Systems Maintenance:				\$1,879.24
6. Groundwater Monitoring Well Maintenance				
Monitoring Wells	LF	_____	_____	_____
Replacement	EA	_____	_____	_____
Abandonment	EA	_____	_____	_____
Subtotal Groundwater Monitoring Well Maintenance:				_____
7. Gas System Maintenance				
Piping, Vents	LF	25	\$52.65	\$1,316.25
Blowers	EA	_____	_____	_____
Flaring Units	EA	_____	_____	_____
Meters, Valves	EA	_____	_____	_____
Compressors	EA	_____	_____	_____
Flame Arrestors	EA	_____	_____	_____
Operation	LS	1	\$789.75	\$789.75
Subtotal Gas System Maintenance:				\$2,106.00
8. Landscape Maintenance				
Mowing	AC	11.99	\$248.64	\$2,981.19
Fertilizer	AC	_____	_____	_____
Subtotal Landscape Maintenance:				\$2,981.19
9. Erosion Control and Cover Maintenance				
Sodding	SY	_____	_____	_____
Regrading	AC	_____	_____	_____
Liner Repair	SY	_____	_____	_____
Clay	CY	_____	_____	_____
Subtotal Erosion Control and Cover Maintenance:				_____
10. Storm Water Management System Maintenance				
Conveyance Maintenance	LS	1	_____	_____
Subtotal Storm Water Management System Maintenance:				_____
11. Security System Maintenance				
Fences	LS	1	_____	_____
Gate(s)	EA	_____	_____	_____
Sign(s)	EA	_____	_____	_____
Subtotal Security System Maintenance:				_____

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
12. Utilities	LS	<u>1</u>		
			Subtotal Utilities:	
13. Leachate Collection/Treatment Systems Operation				
<u>Operation</u>				
P.E. Supervisor	HR			
On-Site Engineer	HR			
Office Engineer	HR			
OnSite Technician	HR			
Materials	LS	<u>1</u>		
			Subtotal Leachate Collection/Treatment Systems Operation:	
14. Administrative				
P.E. Supervisor	HR			
On-Site Engineer	HR			
Office Engineer	HR			
OnSite Technician	HR			
Other _____				
			Subtotal Administrative:	

Subtotal of 1-14 Above: \$7,941.42

15. Contingency	<u>10</u>	% of Subtotal of 1-14 Above		<u>\$794.14</u>
			Subtotal Contingency:	<u>\$794.14</u>

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
16. Site Specific Costs				
			Subtotal Site Specific Costs:	


ANNUAL LONG-TERM CARE COST (\$ / YEAR): \$8,735.57

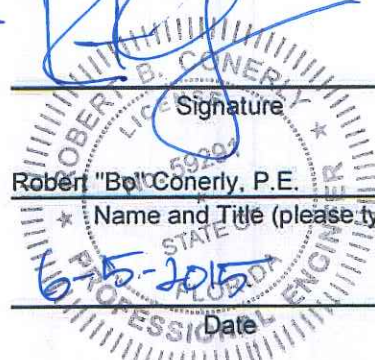
Number of Years of Long-Term Care: 30

TOTAL LONG-TERM CARE COST (\$): \$262,066.98

VI. CERTIFICATION BY ENGINEER

This is to certify that the Cost Estimates pertaining to the engineering features of this solid waste management facility have been examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, the Cost Estimates are a true, correct and complete representation of the financial liabilities for closing and/or long-term care of the facility and comply with the requirements of Rule 62-701.630 F.A.C. and all other Department of Environmental Protection rules, and statutes of the State of Florida. It is understood that the Cost Estimates shall be submitted to the Department annually, revised or adjusted as required by Rule 62-701.630(4), F.A.C.



Signature

Robert "Bo" Conerly, P.E.

Name and Title (please type)
6-15-2015

Date
59291

Florida Registration Number
(please affix seal)

116 South Kentucky Avenue

Mailing Address

Lakeland, FL 33801

City, State, Zip Code

bo.conerly@kimley-horn.com

E-Mail address (if available)

863-226-6857

Telephone Number

VII. SIGNATURE BY OWNER/OPERATOR



Signature of Applicant

Mike Kaiser, Regional Engineer

Name and Title (please type)

michael.kaiser@progressivewaste.com

E-Mail address (if available)

1501 Omni Way

Mailing Address

St. Cloud, FL 34773

City, State, Zip Code

904-673-0446

Telephone Number



2893 Executive Park Drive, Suite 305, Weston, Florida 33331

January 24, 2011

RE: Omni Waste of Osceola County, LLC

To Whom It May Concern:

This is to confirm that Michael Kaiser is an authorized signatory of Omni Waste of Osceola County, LLC (the "Corporation"), with authority to execute and deliver all documents and instruments required in connection with environmental matters for the Corporation, including without limitation, permit applications, modifications and financial assurances for permits issued to the Corporation.

Omni Waste of Osceola County, LLC

A handwritten signature in black ink, appearing to read "William P. Hulligan", is written over a horizontal line.

William P. Hulligan
Manager

Waste Services, Inc.

A handwritten signature in black ink, appearing to read "William P. Hulligan", is written over a horizontal line.

William P. Hulligan
Executive Vice President, U.S. Operations

APPENDIX B

NOTES AND CALCULATIONS

**FINANCIAL ASSURANCE COST ESTIMATE FOR
CLOSURE OF CELL 11:
NOTES AND CALCULATIONS
J.E.D. SOLID WASTE MANAGEMENT FACILITY
OSCEOLA COUNTY, FLORIDA**

The information provided below presents the methods and assumptions used to estimate the cost for the items listed on the Florida Department of Environmental Protection (FDEP) Form 62-701.900(28), F.A.C., "Closure Cost Estimating Form for Solid Waste Facilities" (January 6, 2010). The closure and long-term care costs were estimated for Cell 11 using the FDEP approved unit rate costs from the Cell 10 Financial Assurance Update dated May 2014 prepared by Kimley-Horn. These unit rate costs were inflated by 1.5% to account for the 2015 inflation adjustment. The financial assurance cost estimate presented below includes the closure and long-term care costs specific to Cell 11 only. The section numbers noted below correspond to the item numbers on FDEP Form 62- 701.900(28), F.A.C.

I. GENERAL INFORMATION

The financial assurance cost estimate presented on the FDEP Form 62-701.900(28) provides the closure and long-term care costs for the Cell 11 at the J.E.D. Solid Waste Management facility in Osceola County, Florida. As previously stated, the unit rate closure and long term care costs from the Cell 10 Financial Assurance Update were adjusted by 1.5% to account for the 2015 inflation factor.

IV. ESTIMATED CLOSING COST

1. Proposed Monitoring Wells

The groundwater monitoring well system for Phases 1 through 4 (Cells 1 through 13) has already been completed. Therefore, no costs have been included as part of this financial assurance revision.

2. Slope and Fill (Bedding layer/Intermediate Cover)

Soils purchased and transported from the offsite Bronson borrow area will be used for intermediate cover. The total estimated volume is 19,344 cubic yards (cy) for the 1-ft thick intermediate cover layer over the waste surface. The cost per cy includes purchase, excavation, hauling, placement, spreading, grading, and compaction. The estimated cost for slope and fill material is as follows:

As presented in Figure 1, the two-dimensional top deck area for Cell 11 covers approximately 0.30 acres and the 3:1 side slope area is equal to 11.13 acres resulting in a total area of approximately 11.43 acres (refer to Figure 1). To account for the additional area attributed to the 3:1 side slopes the plan areas are multiplied by 1.05. Therefore, the 3:1 side slope area is $(11.13 \text{ acres}) \times (1.05) = 11.69 \text{ acres}$ plus the 0.30 acre top deck area equals a total corrected area of approximately **11.99 acres**.

- $(11.99 \text{ acres}) \times (43,560 \text{ sf/acre}) \times (1 \text{ ft cover thickness}) \div 27 \text{ cf/cy} = 19,344 \text{ cy}$
- $19,344 \text{ cy} @ (\$4.75/\text{cy}) = \mathbf{\$91,884.00}$

3. Cover Material (Barrier Layer)

The final cover system for the JED facility is comprised of (from bottom to top):

- 12 inch intermediate cover soil layer (Item No.2 above)
- 40-mil PE geomembrane
- geocomposite drainage layer (on 3:1 side slopes only)
- 18-inch cover protective soil layer (Item No. 4 below)
- 6-inch vegetative soil layer (Item No. 5 below)

Cost for geosynthetics includes material and installation costs. The estimated quantities are:

40-mil geomembrane (textured sideslopes and smooth top-deck):

Textured on Sideslopes (Purchase \$2.38/sy and Install \$1.35/sy):

- $(11.69 \text{ acres}) \times (43,560 \text{ sf/acre}) \div (9 \text{ sf/sy}) = 56,580 \text{ sy}$
- $56,580 \text{ sy } 40\text{-mil textured geomembrane} @ \$3.73/\text{sy} = \$211,043.40$

Smooth on Top Deck (Purchase \$2.05/sy and Install \$1.40/sy)

- $(0.30 \text{ acres}) \times (43,560 \text{ sf/acre}) \div (9 \text{ sf/sy}) = 1,452 \text{ sy}$
- $1,452 \text{ sy } 40\text{-mil smooth geomembrane} @ \$3.50/\text{sy} = \$5,082.00$

To calculate the average cost for 40-mil geomembrane for the FDEP form, the total cost to purchase and install was divided by the total area installed:

- $(\$211,043.40 + \$5,082.00) \div (56,580 \text{ sy} + 1,452 \text{ sy}) = \$3.72/\text{sy}$
- $\text{Total average cost } 40\text{-mil geomembrane} = (\$3.72/\text{sy}) \times (58,032 \text{ sy}) = \mathbf{\$215,879.04}$

Geocomposite Drainage Layer (on 3:1 side slopes only):

Geocomposite (Purchase \$3.26/sy and \$0.74/sy):

- $(11.69 \text{ acres}) \times (43,560 \text{ sf/acre}) \div (9 \text{ sf/sy}) = 56,580 \text{ sy}$
- $56,580 \text{ sy geocomposite drainage layer} @ \$4.06/\text{sy} = \mathbf{\$229,714.80}$

The total cost for final cover materials (excluding the intermediate and vegetative soil layers) is **\$445,593.84**.

4. Top Soil Cover (Protective Cover Layer)

Soils purchased and transported from the offsite Bronson borrow area will be used for the protective cover. Cost for the 18 inch cover protective soil layer includes purchase, excavation, hauling, placement, spreading, grading, and compaction.

- $(11.99 \text{ acres}) \times (43,560 \text{ sf/acre}) \times (1.5 \text{ ft cover thickness}) \div 27 \text{ sf/cy} = 29,016 \text{ cy}$
- $29,016 \text{ cy cover soils @ } (\$4.80/\text{cy}) = \mathbf{\$139,276.80}$

5. Vegetative Layer

The vegetative soil layer consists of a 6 inch layer over the protective cover layer. The estimated volume is 9,922 cy. Soils purchased and transported from the offsite Bronson borrow area will be used for the vegetative layer. The cost per cubic yard includes hauling, placing, spreading, and grading.

The final cover area will be sodded. Sodding costs include all labor and materials.

- $(11.99 \text{ acres}) \times (43,560 \text{ sf/acre}) \div (9 \text{ sf/sy}) = 58,032 \text{ sy}$
- $58,032 \text{ sy Bahia sod @ } \$1.29/\text{sy} = \mathbf{\$74,861.28}$

Fertilizer (Amendments) for the vegetative soil layer is \$1,095.55 per acre.

- $(11.99 \text{ acres}) \times (\$1,095.55/\text{acre}) = \mathbf{\$13,135.64}$

The estimated cost for the vegetative soil layer is as follows:

- $(11.99 \text{ acres}) \times (43,560 \text{ sf/acre}) \times (0.5 \text{ ft cover thickness}) \div 27 \text{ sf/sy} = 9,672 \text{ cy}$
- $9,672 \text{ cy @ } (\$4.80/\text{cy}) = \mathbf{\$46,425.60}$

The total cost for the vegetative layer (vegetative soil cover and sod) is **\$134,422.52**

6. Storm Water Control System

Storm water control components that will be installed during closure consist of side slope drainage swales, inlet structures on the side slope swales, seepage header piping, and HDPE corrugated down chute pipes (refer to Figure 2). The earthwork estimate includes excavation, hauling, placement, spreading, grading, and compaction of the additional soils required on the drainage benches for sloping and cover over the down chute piping.

Based on the Solid Waste Renewal Permit Drawings dated November 2011 (Sheet 42 of 45), approximately 4,100 ft of side slope drainage swales, 1,520 ft of 24 inch down chute pipes, 4,160 feet of 4 inch seepage header pipe, twenty (22) wye-connection inlet structures, and three (3) drainage structures will be installed to convey the storm water from the proposed side slope swales to the dry retention area located at the toe of the landfill perimeter berm for Cell 11.

The total cost for the storm water control system is estimated to be **\$158,546.31** as indicated

below.

- Earthwork: Additional soil to construct drainage swales is calculated based on the typical cross-section detail for the drainage swale from the Solid Waste Renewal Permit Drawings dated November 2011 and using the average depth of the swale = 20.6 sf per linear foot of swale.
 - $(20.6 \text{ sf}) \times (4,100 \text{ ft}) = 84,460 \text{ cf}$
 - $(84,460 \text{ cf}) \div (27 \text{ cf/cy}) = 3,129 \text{ cy}$
 - $3,129 \text{ cy @ } (\$4.80/\text{cy}) = \mathbf{\$15,019.20}$
- Piping (material and installation):90
 - 1,520 ft of 24 inch HDPE corrugated pipe @ $\$35.97/\text{ft} = \mathbf{\$54,674.40}$
 - 4,160 ft of 4 inch HDPE corrugated pipe @ $8.19/\text{ft} = \mathbf{\$34,070.40}$ (the cost of the 4-inch drainage pipe includes the cost of the pipe and a 3-ft wide strip of geomembrane used to wrap the pipe).

To calculate an average cost per foot of pipe for the FDEP form, the total pipe cost above has been divided by the total length of pipe to be installed:

 - $(\$54,674.40 + \$34,070.40) \div (1,520 \text{ ft} + 4,160 \text{ ft}) = \mathbf{\$15.63/\text{ft.}}$
- Wye Connections: A concrete pad will be installed with each “wye” connection – which joins the swale pipes to the main side slope down chute – to hold the piping in place and reduce erosion. Twenty (22) concrete pads are proposed for the Cell 11 closure. Each concrete pad will be 6-inches thick with dimensions of approximately 7.5-ft x 7.5-ft and fitted with a galvanized grate. The cost to install all fittings, concrete, and grates is $22 \text{ structures} \times \$2,365.41 = \mathbf{\$52,039.02}$.
- Drainage inlet structures:
 - $3 @ \$903.23 \text{ each} = \mathbf{\$2,709.69}$.

7. Passive Gas Control

The JED facility has an active gas collection and control system (GCCS) within the Phase 1 through 4 development areas (i.e., Cells 1-11), which will be expanded with the closure and development of subsequent cells. The costs associated with the installation of the passive gas control elements were calculated utilizing the proposed GCCS design as provided in the Lateral Expansion Solid Waste Permit Drawings (Sheet 29 of 40) and include materials and installation.

The gas extraction wells for Cell 11 (refer to Figure 3) have been categorized as Shallow (<50 ft), Intermediate (50-100 ft), and Deep (100-150 ft). For estimating purposes the well depths have

been assumed as 50, 100 and 150 ft of which 15 ft is solid well casing and the remainder is perforated zone casing.

Cost for gas wells [drilling, perforated pipe section (including gravel), solid pipe section (including soil backfill), and well head] was calculated as follows:

- 7 – Shallow depth gas wells @ \$4,982.85/gas well = **\$34,879.95**
- 4 – Intermediate depth gas wells @ \$9,457.68/gas well = **\$37,830.72**
- 4 – Deep gas wells @ \$13,932.50/gas well = **\$55,730.00**

To calculate an average cost per gas well for the FDEP form, the total well costs above have been divided by the proposed number of gas wells:

- $(\$34,879.95 + \$37,830.72 + \$55,730.00) \div 15 \text{ wells} = \mathbf{\$8,562.72}$ per well

Lateral piping (6-inch SDR-17 HDPE Pipe):

The total plan dimension length for 6-inch lateral pipe has been increased by 10% to allow for a 3:1 slope correction factor and additional length required for vertical risers to connect to the adjacent extraction well.

- $2,099 \text{ ft} \times 1.10 = 2,309 \text{ @ } \$21.07/\text{ft} = \mathbf{\$48,650.63}$

Header piping (12-inch SDR-17 HDPE Pipe):

The total plan dimension length of 12-inch header pipe has been increased by 10% to allow for varying bury depths to meet the required minimum 5% slope (sideslope areas) and a 3:1 slope correction for the cross over header.

- $990 \text{ ft} \times 1.10 = 1,089 \text{ ft @ } \$44.23/\text{ft} = \mathbf{\$48,166.47}$

To calculate the cost per foot of gas system piping, the total pipe cost has been divided by the total estimated length of pipe:

- $(\$48,650.63 + \$48,166.47) \div (2,309 \text{ ft} + 1,089 \text{ ft}) = \mathbf{\$28.50/\text{ft}}$

It is assumed that an additional 5% of the pipe cost is needed for fittings.

- $(\$28.50 \times 1.05) = \mathbf{\$29.93/\text{ft}}$

The total cost for the lateral and header piping and fittings is:

- $\$29.93/\text{ft} \times 3,398 \text{ ft} = \mathbf{\$101,702.14}$

Perimeter gas monitoring probes have been installed for Phases 1 through 4 (i.e., Cells 1-11) therefore, no costs have been included in this closure cost estimate.

The total cost for passive gas controls is **\$230,142.94**.

8. Active Gas Control

Based on the proposed GCCS design, two gas flare stations will be installed as part of the GCCS for Phases 1 through 4. One gas flare station was already installed as part of the Phase 1, Sequence 1 and 2 GCCS installation (for Cells 1 through 4). The cost of the second gas flare was included as part of the Revised Financial Assurance for the remaining Phase 1 Closure Area; therefore, no additional costs have been included with the Cell 11 closure financial assurance. The second flare is currently under construction and is expected to be operational in late 2015.

9. Security System

The perimeter fencing and gates were installed as part of the Phase 1 construction and therefore have not been included as part of this closure cost estimate.

10. Engineering

Closure Plan Report – Costs to prepare the closure plan was included in the financial assurance cost update associated with the 2012 permit renewal application. No additional costs are required for the addition of the Cell 11 area.

Final Survey – It was estimated in the previously approved Financial Assurance that surveying costs were approximately \$1,779.75/acre. Therefore, costs associated with the final survey of Cell 11 are $\$1,806.45 \times 11.99 \text{ acres} = \mathbf{\$21,659.34}$

Certification of Closure – Costs to prepare the certification of closure was included in the financial assurance cost update associated with the 2012 permit renewal application. No additional costs are required for addition of the Cell 11 area.

11. Professional Services

It is estimated that approximately 3 percent of construction cost will be needed for contract/construction management, which equates to:

- $0.03 \times \$1,199,495.07 = \mathbf{\$35,995.99}$.

It is estimated that approximately 7 percent of construction cost will be needed for construction quality assurance (CQA), which equates to:

- $0.07 \times \$1,199,495.07 = \mathbf{\$83,990.64}$.

Quality assurance testing is estimated to be 10 percent of the CQA cost estimate and is based on the requirements of the CQA Plan, estimated quantities, and the approved cost provided in the Cell 10 Financial Assurance update with the 1.5% inflation factor. This equates to:

- $0.10 \times \$83,954.86 = \mathbf{\$8,399.06}$.

12. Contingency

A contingency factor for closure costs of 10 percent is estimated.

13. Site Specific Costs

It is estimated that approximately 5 percent of construction cost will be needed for mobilization and demobilization of equipment which equates to $(0.05) \times (\$1,199,866.28) = \text{\$59,993.32}$.

V. ANNUAL COST FOR LONG TERM CARE**1. Groundwater Monitoring**

The long-term care cost for 33 groundwater monitoring wells was included in the December 2012 Phased Financial Assurance Update approved by FDEP in January of 2013. Based on the approved well abandonment/installation sequencing through Phase 4, a total of 46 wells will be installed and sampled for Cells 11 through 13. The long-term care cost estimate for Cell 11 includes the groundwater monitoring costs for the additional 13 wells. The cost per well per event is based on the unit costs approved in the December 2012 Phased Financial Assurance Update inflated by 5.3% ($\$772.73 \times 1.053 = \813.65). The 5.3% inflation factor is based on the approved inflation rates of 2% for the Cell 9 Financial Assurance Update and 1.7% for the Cell 10 Financial Assurance Update as well as the 1.5% inflation factor applied to the Cell 11 Financial Assurance Update.

2. Surface Water Monitoring

The long-term care cost for surface water monitoring was included in the previously approved financial assurance cost estimate. Therefore, no additional monitoring cost has been included as part of the long-term care cost estimate for Cell 11.

3. Landfill Gas Monitoring

The long-term care cost for gas monitoring probes and Air Permit reporting were included in the previously approved financial assurance cost estimate which included gas monitoring for Phases 1 through 4. Therefore, no additional monitoring cost has been included as part of the long-term care cost estimate for Cell 11.

4. Leachate Monitoring

A leachate sample would be collected annually from Cell 11. The leachate sampling cost includes all labor, equipment, and laboratory analyses required by the regulations. Leachate monitoring unit rate cost at cell sump equals \$974.99/sump/year.

5. Leachate Collection/Treatment System Maintenance

For the long term care cost estimate, the following maintenance activities have been assumed:

Leachate pumps: Assumed that pumps require annual maintenance and Cell 11 will require a replacement pump during the 30-year monitoring period:

- Annual maintenance = \$525.95/year
- Leachate pump replacement cost = $(\$11,328.16) \div 30 \text{ years} = \$377.61/\text{year}$
- Total estimated annual cost for pumps = \$903.56/year

Cleaning: Assumed that one system cleaning/jetting every 10 years within the 30-year monitoring period will be required for Cell 11 (total of 3 cleanings).

- $(\$9,756.84 \times 3) / 30 \text{ years} = \$975.68/\text{year}.$

Leachate storage containers: The long-term care cost for the leachate storage holding ponds was included in the previously approved financial assurance cost estimate. Therefore, no additional monitoring cost has been included as part of the long-term care cost estimate for Cell 11.

Leachate Aeration: The long-term care cost for the leachate aeration was included in the previously approved financial assurance cost estimate. Therefore, no additional monitoring cost has been included as part of the long-term care cost estimate for Cell 11.

Leachate disposal: The long-term care cost for the leachate disposal was included in the previously approved financial assurance cost estimate. Therefore, no additional monitoring cost has been included as part of the long-term care cost estimate for Cell 11.

6. Groundwater Monitoring Well Maintenance

The long-term care cost for maintenance of groundwater monitoring wells was included in the previously approved financial assurance cost estimate. Therefore, no additional cost is included as part of the long-term care cost estimate for Cell 11.

7. Gas System Maintenance

Fifteen (15) gas wells will eventually be installed within the footprint of Cell 11 (refer to Figure 3). It is estimated that an additional \$52.65 per well/year will be needed for operation ($\$52.65 \times 15 \text{ wells} = \mathbf{\$789.75}$). Additionally, it is estimated that 25 ft of lateral or header piping will require replacement or repair at an average cost of \$52.65/ft. The remainder of the long-term care cost for gas system maintenance was included in the previously approved financial assurance cost

8. Landscape

The long-term care cost estimate assumes that for the 11.99-acre area, the grass will be mowed four times per year at a cost of \$62.16 per acre. Mowing/maintenance:

- $(4 \text{ times/year}) \times (11.99 \text{ acres}) \times (\$62.16/\text{acre}) = \mathbf{\$2,981.19}$

9. Erosion Control and Cover Maintenance

The long-term care cost for erosion control and cover maintenance was included in the previously approved financial assurance cost estimate. Therefore, no additional cost is included as part of the long-term care cost estimate for Cell 11.

10. Storm Water Management System Maintenance

The long-term care cost for storm water management system maintenance was included in the previously approved financial assurance cost estimate. Therefore, no additional cost is included as part of the long-term care cost estimate for Cell 11.

11. Security System Maintenance

The long-term care cost for security system maintenance was included in the previously approved financial assurance cost estimate. Therefore, no additional cost is included as part of the long-term care cost estimate for Cell 11.

12. Utilities

The long-term care cost for utilities was included in the previously approved financial assurance cost estimate. Therefore, no additional cost is included as part of the long-term care cost estimate for Cell 11.

13. Leachate Collection/Treatment Systems Operation

The long-term care costs for the leachate collection/treatment system operation was included in the previously approved financial assurance cost estimate. Therefore, no additional cost is included as part of the long-term care cost for Cell 11.

14. Administrative

The administrative long-term care cost was included in the previously approved financial assurance cost estimate. Therefore, no additional cost is included as part of the long-term care cost estimate for Cell 11.

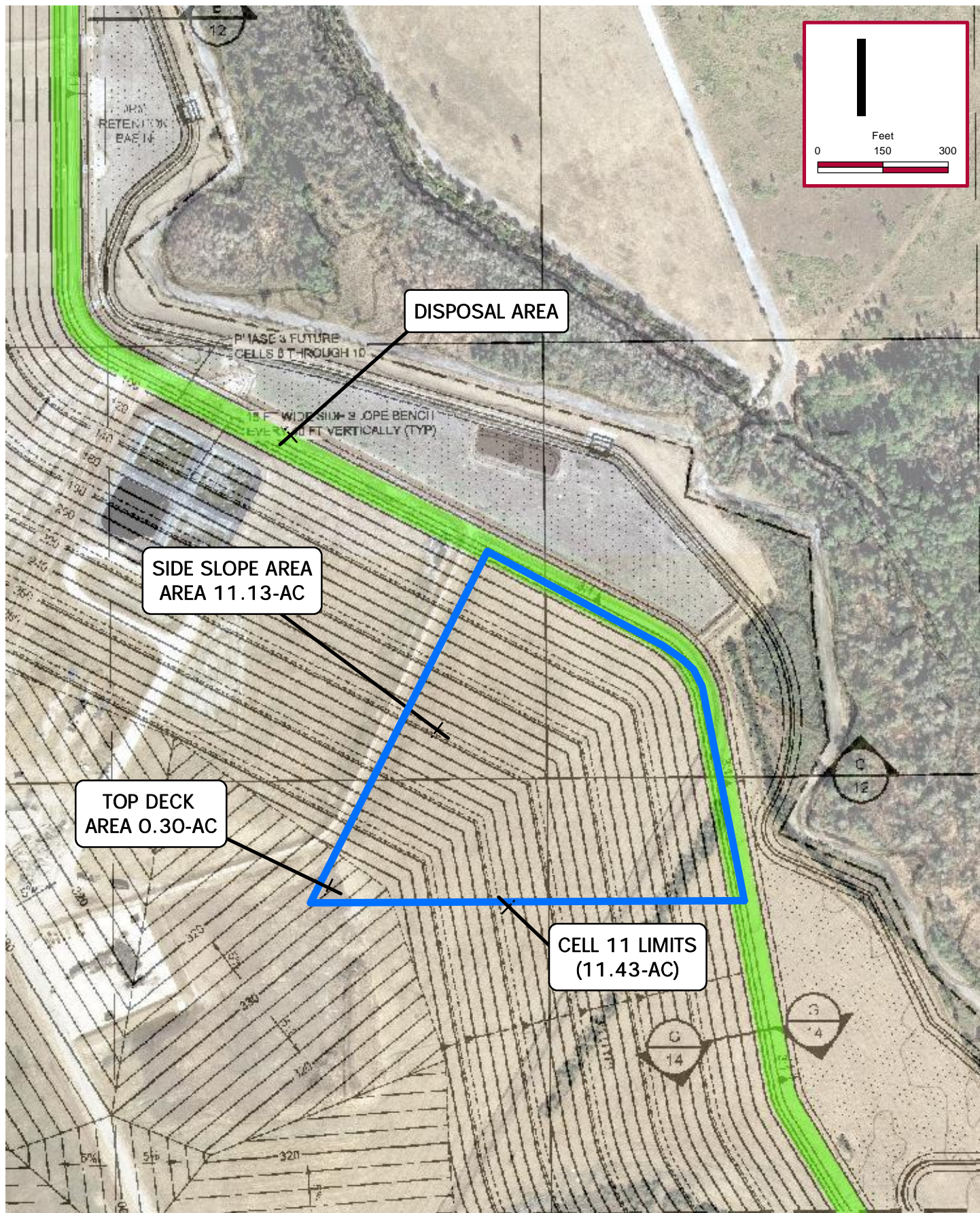
15. Contingency

A contingency factor for long-term care costs of 10 percent is estimated based on the current unit rate cost pricing and level of detail provided for this estimate.

16. Site Specific Costs

No additional site specific costs are estimated.

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CELL 11 FOOTPRINT AND AREAS

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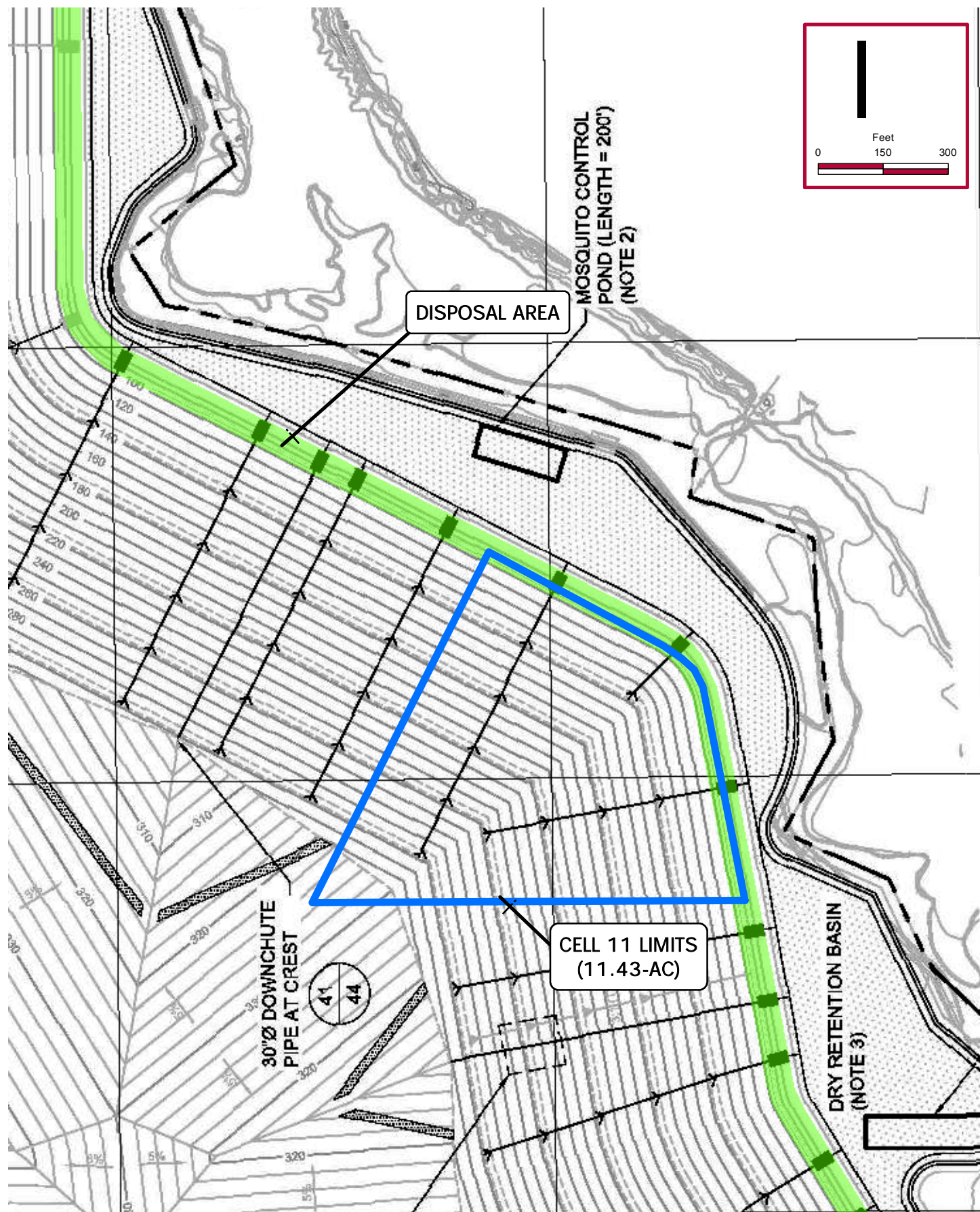
Scale: As Noted

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Figure 1

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CELL 11 STORMWATER

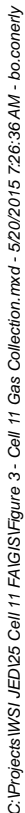
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Figure 2



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CELL 11 GAS COLLECTION

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Figure 3