

# FINANCIAL ASSURANCE COST ESTIMATES UPDATE CONSTRUCTION OF CELL 13 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](http://www.kimley-horn.com)

Attention: Robert "Bo" Conerly, P.E.  
[bo.conerly@kimley-horn.com](mailto:bo.conerly@kimley-horn.com)

KHA Project No. 148036045

March 2016

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This is to certify that the enclosed engineering calculations were performed by me or under my direct supervision:

**Robert B. Conerly, P.E.**, State of Florida,  
Professional Engineer, License No. **59291**

This item has been electronically signed and sealed  
by **Robert B. Conerly, P.E.** on **4/13/2016** using a  
Digital Signature.

Printed copies of this document are not considered  
signed and sealed and the signature must be verified  
on any electronic copies.

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Robert Conerly, P.E. #59291  
Kimley-Horn and Associates, Inc.  
3675 Innovation Drive  
Lakeland, Florida 33812  
CA 00000696

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Date:



**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 13 disposal area at the JED facility.

The JED facility is owned and operated by Omni Waste of Osceola County, LLC (Omni), 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 11 have been constructed and Cell 13 is under construction and estimated to be completed by June 31, 2016. Start-up of waste disposal operations in Cell 13 are anticipated shortly thereafter.

The Phase 1 disposal area was partially closed in 2009 and included approximately 25 acres of 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 substantially completed in 2009 and documented in



the February 17, 2009 Construction Quality Assurance Report prepared by Geosyntec Consultants. 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.

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 (permit issued July 12, 2012). 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. The Cell 9 cost estimates were approved by the FDEP on August 9, 2013.

In May of 2014, Kimley-Horn prepared the Financial Assurance Update for the Cell 10 Disposal Area titled "Financial Assurance Cost Estimates Update – Construction of Cell 10 Disposal Area" (Cell 10 Financial Assurance Update) using the long-term care and closure unit rate costs associated with the approved Cell 9 Financial Assurance Update adjusted based on the 1.7% annual inflation factor issued by the FDEP so that both the closure and long-term care costs were consistent with the 2014 Financial Assurance rates. The Cell 10 Financial Assurance Update was approved on May 15, 2014.

In June of 2015 Kimley-Horn prepared the Financial Assurance update for Cell 11 titled "Financial Assurance Cost Estimates Update – Construction of Cell 11 Disposal Area" (Cell 11 Financial Assurance Update) using the long-term care and closure unit rate costs associated with the approved Cell 10 Financial Assurance Update adjusted based on the 1.5% annual inflation factor issued by FDEP so that both the closure and long-term care costs were consistent with the 2015 Financial Assurance rates. The Cell 11 Financial Assurance Update was approved in September 4, 2015.



Currently, the Cell 13 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 13 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 13 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 13 were estimated using the June 2015 Cell 11 Financial Assurance Update that was approved by the FDEP on September 4, 2014. A 2015 annual inflation adjustment of 1.4% was applied to the June 2015 Cell 11 long term care and closure cost unit rates based on the 2016 annual inflation adjustment guidance issued by the FDEP on January 5, 2016. Additionally, the Cells 1-11 closure and long-term care costs were adjusted 1.4% to account for the annual adjustment recently approved by the FDEP on March 10, 2016.

Closure and long-term care costs associated with Cells 1 through 11 are not affected by the Cell 13 construction. Therefore, only closure and long-term care costs associated with the Cell 13 construction are provided. The notes and calculations presented in Appendix B provide the closure and long-term cost estimates for Cell 13 and have been summarized in the table below.

<b>Cell Identification</b>	<b>Closure Cost Estimate</b>	<b>Long-Term Care Cost Estimate</b>	<b>Financial Assurance Cost Estimate</b>
Cells 1 – 11	\$13,006,597.08	\$10,536,156.94	\$23,542,754.02
Cell 13	\$2,072,604.80	\$333,680.37	\$2,406,285.17
Totals	\$15,079,201.88	\$10,869,837.31	\$25,949,039.19

Omni will provide FDEP with an insurance certificate for the revised financial assurance cost estimate of \$25,949,039.19 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 13	17.59	NA	2 - 3 years			

Total disposal unit acreage included in this estimate: Closure: 17.59 Long-Term Care: 17.59

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 Deflatory 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](http://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 <b>Closing Cost</b> Estimate:		Current Year Inflation Factor, <b>e.g. 1.02</b>			Inflation Adjusted Closing Cost Estimate:
_____	×	_____	=		_____

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

Latest Department Approved <b>Annual Long-Term Care</b> Cost Estimate:		Current Year Inflation Factor, <b>e.g. 1.02</b>			Inflation Adjusted Annual Long-Term Care Cost Estimate:
_____	×	_____	=		_____
		Number of Years of Long Term Care Remaining:		×	_____
		<b>Inflation Adjusted Long-Term Care Cost Estimate:</b>		=	_____

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
<b>1. Proposed Monitoring Wells (Do not include wells already in existence.)</b>				
	EA	0	\$0.00	
				Subtotal Proposed Monitoring Wells:
<b>2. Slope and Fill (bedding layer between waste and barrier layer):</b>				
Excavation	CY			
Placement and Spreading	CY	29,105	\$4.82	\$140,286.10
Compaction	CY			
Off-Site Material	CY			
Delivery	CY			
				Subtotal Slope and Fill:
				\$140,286.10
<b>3. Cover Material (Barrier Layer):</b>				
Off-Site Clay	CY			
Synthetics - 40 mil	SY	87,314	\$3.67	\$320,442.38
Synthetics - GCL	SY			
Synthetics - Geonet	SY			
Synthetics - Other (explain)	SY	45,690	\$4.12	\$188,242.80
Geocomposite Drainage Layer				
				Subtotal Cover Material:
				\$508,685.18
<b>4. Top Soil Cover:</b>				
Off-Site Material	CY			
Delivery	CY			
Spread	CY	43,657	\$4.87	\$212,609.59
				Subtotal Top Soil Cover:
				\$212,609.59
<b>5. Vegetative Layer</b>				
Sodding	SY	87,314	\$1.31	\$114,381.34
Hydroseeding	AC			
Fertilizer	AC	18.04	\$1,110.89	\$20,040.46
Mulch	AC			
Other (explain)	CY	14,553	\$4.87	\$70,873.11
6-in Vegetative Soil Cover				
				Subtotal Vegetative Layer:
				\$205,294.91
<b>6. Stormwater Control System:</b>				
Earthwork	CY	2,386	\$4.87	\$11,619.82
Grading	SY			
Piping	LF	5,222	\$20.83	\$108,774.26
Ditches	LF			
Berms	LF			
Control Structures	EA	3	\$915.88	\$2,747.64
Other (explain)"Wye" connection	EA	18	\$2,398.53	\$43,173.54
				Subtotal Stormwater Control System:
				\$166,315.26

Description	Unit	Number of Units	Cost / Unit	Total Cost
<b>7. Passive Gas Control:</b>				
Wells	EA	21	\$12,399.00	\$260,379.00
Pipe and Fittings	LF	4,647	\$24.25	\$112,689.75
Monitoring Probes	EA			
NSPS/Title V requirements	LS	1		
Subtotal Passive Gas Control:				\$373,068.75
<b>8. Active Gas Extraction Control:</b>				
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:				
<b>9. Security System:</b>				
Fencing	LF			
Gate(s)	EA			
Sign(s)	EA			
Subtotal Security System:				
<b>10. Engineering:</b>				
Closure Plan Report	LS	1		
Certified Engineering Drawings	LS	1		
NSPS/Title V Air Permit	LS	1		
Final Survey	LS	1	\$33,044.77	\$33,044.77
Certification of Closure	LS	1		
Other (explain) _____				
Subtotal Engineering:				\$33,044.77

Description	Hours	Cost / Hour	Hours	Cost / Hour	Total Cost
<b>11. Professional Services</b>					
	<u>Contract Management</u>		<u>Quality Assurance</u>		
P.E. Supervisor					
On-Site Engineer					
Office Engineer					
On-Site Technician					
Other (explain)	1	\$48,186	1	\$112,434	\$160,626.00

Description	Unit	Number of Units	Cost / Unit	Total Cost
Quality Assurance Testing	LS	1	\$11,243.82	\$11,243.82
Subtotal Professional Services:				\$171,869.82



**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
<b>1. Groundwater Monitoring [62-701.510(6), and (8)(a)]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Groundwater Monitoring:				_____
<b>2. Surface Water Monitoring [62-701.510(4), and (8)(b)]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Surface Water Monitoring:				_____
<b>3. Gas Monitoring [62-701.400(10)]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	1	\$212.43	\$212.43
Subtotal Gas Monitoring:				\$212.43
<b>4. Leachate Monitoring [62-701.510(5), (6)(b) and 62-701.510(8)c]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	1	\$988.64	\$988.64
Other (explain) _____	_____	_____	_____	_____
Subtotal Leachate Monitoring:				\$988.64

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
<b>5. Leachate Collection/Treatment Systems Maintenance</b>				
<u>Maintenance</u>				
Collection Pipes	LF	_____	_____	_____
Sumps, Traps	EA	1	\$916.21	\$916.21
Lift Stations	EA	_____	_____	_____
Cleaning	LS	1	\$989.34	\$989.34
Tanks	EA	_____	_____	_____

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
<b>5. (continued)</b>				
<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:				<u>\$1,905.55</u>
<b>6. Groundwater Monitoring Well Maintenance</b>				
Monitoring Wells	LF	_____	_____	_____
Replacement	EA	_____	_____	_____
Abandonment	EA	_____	_____	_____
Subtotal Groundwater Monitoring Well Maintenance:				_____
<b>7. Gas System Maintenance</b>				
Piping, Vents	LF	<u>25</u>	<u>\$53.39</u>	<u>\$1,334.75</u>
Blowers	EA	_____	_____	_____
Flaring Units	EA	_____	_____	_____
Meters, Valves	EA	_____	_____	_____
Compressors	EA	_____	_____	_____
Flame Arrestors	EA	_____	_____	_____
Operation	LS	<u>1</u>	<u>\$1,121.19</u>	<u>\$1,121.19</u>
Subtotal Gas System Maintenance:				<u>\$2,455.94</u>
<b>8. Landscape Maintenance</b>				
Mowing	AC	<u>18.04</u>	<u>\$252.16</u>	<u>\$4,548.97</u>
Fertilizer	AC	_____	_____	_____
Subtotal Landscape Maintenance:				<u>\$4,548.97</u>
<b>9. Erosion Control and Cover Maintenance</b>				
Sodding	SY	_____	_____	_____
Regrading	AC	_____	_____	_____
Liner Repair	SY	_____	_____	_____
Clay	CY	_____	_____	_____
Subtotal Erosion Control and Cover Maintenance:				_____
<b>10. Storm Water Management System Maintenance</b>				
Conveyance Maintenance	LS	<u>1</u>	_____	_____
Subtotal Storm Water Management System Maintenance:				_____
<b>11. Security System Maintenance</b>				
Fences	LS	<u>1</u>	_____	_____
Gate(s)	EA	_____	_____	_____
Sign(s)	EA	_____	_____	_____
Subtotal Security System Maintenance:				_____

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

**Subtotal of 1-14 Above:** \$10,111.53

<b>15. Contingency</b>	<u>10</u>	% of Subtotal of 1-14 Above		<u>\$1,011.15</u>
			Subtotal Contingency:	<u>\$1,011.15</u>

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

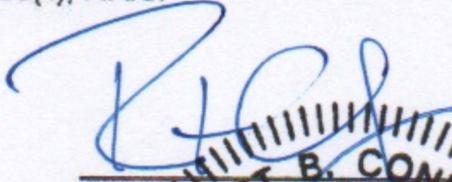
**ANNUAL LONG-TERM CARE COST (\$ / YEAR):** \$11,122.68

Number of Years of Long-Term Care: 30

**TOTAL LONG-TERM CARE COST (\$):** \$333,680.37

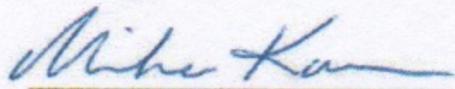
**VI. CERTIFICATION BY ENGINEER**

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.

  
\_\_\_\_\_  
ROBERT B. CONERLY  
LICENSE  
No. 59291  
Robert "Bo" Conerly, P.E.  
\_\_\_\_\_  
Name and Title (please type)  
STATE OF  
4/10/16  
\_\_\_\_\_  
Date  
PROFESSIONAL ENGINEER  
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



Progressive Waste Solutions  
2301 Eagle Parkway, Suite 200  
Fort Worth, TX 76177

June 1, 2015

To Whom it May Concern:

I, Kevin C. Walbridge, hereby certify that I am a responsible corporate officer of Omni Waste of Osceola County, LLC. I hereby duly authorize Michael Kaiser, whose signature appears below, to be my representative and authorize him to sign all permit applications, modifications, and financial assurance and reporting documents for Omni Waste of Osceola County, LLC.

Sincerely,

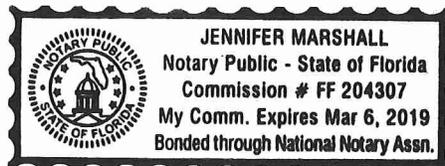
A handwritten signature in black ink that reads "K.C. Walbridge".

Kevin C. Walbridge  
President  
Omni Waste of Osceola County, LLC

A handwritten signature in blue ink that reads "Michael Kaiser".

Michael Kaiser  
Authorized Agent

Notary:



A handwritten signature in blue ink that reads "Jennifer Marshall".

## **APPENDIX B**

### **NOTES AND CALCULATIONS**

**FINANCIAL ASSURANCE COST ESTIMATE FOR  
CLOSURE OF CELL 13  
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 13 using the FDEP approved unit rate costs from the Cell 11 Financial Assurance Update dated June 2015 prepared by Kimley-Horn. These unit rate costs were inflated by 1.4% to account for the 2016 inflation adjustment issued by the FDEP on January 5, 2016. The financial assurance cost estimate presented below includes the closure and long-term care costs specific to Cell 13 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 13 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 11 Financial Assurance Update were adjusted by 1.4% to account for the 2016 inflation factor issued by the FDEP.

**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 29,105 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 13 covers approximately 8.60 acres and the 3:1 side slope area is equal to 8.99 acres resulting in a total area of approximately 17.59 acres. The 3:1 side slope areas are multiplied by 1.05 to account for the required plan area correction factor. Therefore, the 3:1 side slope area is (8.99 acres) × (1.05) = 9.44 acres plus the 8.60 acre top deck area equals a total corrected area of approximately **18.04 acres**.

- (18.04 acres) × (43,560 sf/acre) × (1 ft cover thickness) ÷ 27 cf/cy = 29,105 cy
- 29,105 cy @ (\$4.82/cy) = **\$140,286.10**

### 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 \$2.41/sy and Install \$1.37/sy):

- (9.44 acres) × (43,560 sf/acre) ÷ (9 sf/sy) = 45,690 sy
- 45,690 sy 40-mil textured geomembrane @ \$3.78/sy = \$172,708.20

Smooth on Top Deck (Purchase \$2.11/sy and Install \$1.44/sy)

- (8.60 acres) × (43,560 sf/acre) ÷ (9 sf/sy) = 41,624 sy
- 41,624 sy 40-mil smooth geomembrane @ \$3.55/sy = \$147,765.20

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:

- (\$172,708.20 + \$147,765.20) ÷ (45,690 sy + 41,624 sy) = \$3.67/sy
- Total average cost 40-mil geomembrane = (\$3.67/sy) × (87,314 sy) = **\$320,442.38**

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

Geocomposite (Purchase \$3.36/sy and \$0.76/sy):

- (9.44 acres) × (43,560 sf/acre) ÷ (9 sf/sy) = 45,690 sy
- 45,690 sy geocomposite drainage layer @ \$4.12/sy = **\$188,242.80**

The total cost for final cover materials (excluding the intermediate and vegetative soil layers) is **\$508,685.18**.

#### 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.

- $(18.04 \text{ acres}) \times (43,560 \text{ sf/acre}) \times (1.5 \text{ ft cover thickness}) \div 27 \text{ sf/cy} = 43,657 \text{ cy}$
- $43,657 \text{ cy cover soils @ } (\$4.87/\text{cy}) = \mathbf{\$212,609.59}$

#### 5. Vegetative Layer

The vegetative soil layer consists of a 6 inch layer over the protective cover layer. The estimated volume is 14,553 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.

- $(18.04 \text{ acres}) \times (43,560 \text{ sf/acre}) \div (9 \text{ sf/sy}) = 87,314 \text{ sy}$
- $87,314 \text{ sy Bahia sod @ } \$1.31/\text{sy} = \mathbf{\$114,381.34}$

Fertilizer (Amendments) for the vegetative soil layer is \$1,110.89 per acre.

- $(18.04 \text{ acres}) \times (\$1,110.89 /\text{acre}) = \mathbf{\$20,040.46}$

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

- $(18.04 \text{ acres}) \times (43,560 \text{ sf/acre}) \times (0.5 \text{ ft cover thickness}) \div 27 \text{ sf/sy} = 14,553 \text{ cy}$
- $14,553 \text{ cy @ } (\$4.87/\text{cy}) = \mathbf{\$70,873.11}$

The total cost for the vegetative layer (vegetative soil cover and sod) is **\$205,294.91**

#### 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 3,126 ft of side slope drainage swales, 1,271 ft of 24 inch down chute pipes, 774 feet of 30" down chute pipe, 3,177 feet of 4 inch seepage header pipe, eighteen (18) 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 13.

The total cost for the storm water control system is estimated to be **\$166,315.26** 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.
  - $(20.6 \text{ sf}) \times (3,126 \text{ ft}) = 64,396 \text{ cf}$
  - $(64,396 \text{ cf}) \div (27 \text{ cf/cy}) = 2,386 \text{ cy}$
  - $2,386 \text{ cy} @ (\$4.87 \text{ cy}) = \mathbf{\$11,619.82}$
- Piping (material and installation):
  - 1,271 ft of 24 inch HDPE corrugated pipe @ \$36.48/ft = **\$46,366.08**
  - 774 ft of 30 inch HDPE corrugated pipe @ \$46.53/ft = **\$36,014.22**
  - 3,177 ft of 4 inch HDPE corrugated pipe @ 8.31/ft = **\$26,400.87** (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:

- $(\mathbf{\$46,366.08} + \mathbf{\$36,014.22} + \mathbf{\$26,400.87}) \div (1,271 \text{ ft} + 774 \text{ ft} + 3,177 \text{ ft}) = \mathbf{\$20.83/ft.}$
- 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. Eighteen (18) 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 18 structures x \$2,398.53 = **\$43,173.54**
- Drainage inlet structures:
  - 3 @ \$915.88 each = **\$2,747.64**

## 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 and 13), 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 13 (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:

- 3 – Shallow depth gas wells @ \$5,052.61/gas well = **\$15,157.83**
- 2 – Intermediate depth gas wells @ \$9,590.09/gas well = **\$19,180.18**
- 16 – Deep gas wells @ \$14,127.56/gas well = **\$226,040.96**

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:

- **$(\$15,157.83 + \$19,180.18 + \$226,040.96) \div 21 \text{ wells} = \$12,399.00$**  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.

- $3,916 \text{ ft} \times 1.10 = 4,308 \text{ @ } \$21.37/\text{ft} = \mathbf{\$92,061.96}$

#### 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.

- $308 \text{ ft} \times 1.10 = 339 \text{ ft @ } \$44.85/\text{ft} = \mathbf{\$15,204.15}$

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

- **$(\$92,061.96 + \$15,204.15) \div (4,308 \text{ ft} + 339 \text{ ft}) = \$23.09/\text{ft}$**

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

- $(\$23.09 \times 1.05) = \mathbf{\$24.25/\text{ft}}$

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

- $\$24.25/\text{ft} \times 4,647 \text{ ft} = \mathbf{\$112,689.75}$

Perimeter gas monitoring probes have been installed for Phases 1 through 4 (i.e., Cells 1-11 and 13) therefore, no costs have been included in this closure cost estimate.

The total cost for passive gas controls is **\$373,068.75**.

## 8. Active Gas Control

The current constructed active GCCS as of March 2016 includes two LFG flares, a blower skid with three blowers, one LFG fan cooler, moisture conditioning equipment, and an H<sub>2</sub>S treatment system installed at the landfill gas-to-energy (LFGTE) project location. This equipment was installed in 2015 to support the LFGTE project and will support the entire GCCS Passive System described in Section 7 for Phases 1-4, therefore, no additional costs have been included with the Cell 13 closure financial assurance.

## 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 13 area.

Final Survey – It was estimated in the previously approved Financial Assurance that surveying costs were approximately \$1,806.45/acre. Therefore, costs associated with the final survey of Cell 13 are  $\$1,831.75 \times 18.04 \text{ acres} = \mathbf{\$33,044.77}$

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 13 area.

## 11. Professional Services

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

- $0.03 \times \$1,606,259.76 = \mathbf{\$48,187.80}$ .

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

- $0.07 \times \$1,606,259.76 = \mathbf{\$112,438.19}$ .

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 11 Financial Assurance update with the 1.5% inflation factor. This equates to:

- $0.10 \times \$112,438.19 = \$11,243.82.$

## 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  $(0.05) \times (\$1,606,259.76) = \$80,312.99.$

## 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 for the additional 13 wells was included in the Cell 11 Financial Assurance Update. Therefore, no additional monitoring cost has been included as part of the long-term care cost estimate for Cell 13.

### 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 13.

### 3. Landfill Gas Monitoring

The long-term care cost for gas monitoring probes has been adjusted to account for 7 new gas monitoring probes installed in 2015 for Phase 4. A total of 23 gas monitoring probes will be monitored for the Phase 1-4 areas. The addition of 7 new probes will require the labor time and cost adjustment as noted below. No additional travel time or equipment rental costs would be incurred for the new probes. The hourly labor rate of \$66.30/hour that was approved under the 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") has been adjusted based on the yearly annual inflation adjustments rates to \$70.81/hour.

The cost to perform the monitoring includes field and travel time.

- (2 additional hrs field) × \$70.81/hr = \$141.62
- Additional time to prepare report - 1 hrs @ \$70.81/hr = \$70.81

Total additional cost per monitoring event equals \$141.62 + \$70.81 = **\$212.43**

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 13.

#### 4. Leachate Monitoring

A leachate sample would be collected annually from Cell 13. The leachate sampling cost includes all labor, equipment, and laboratory analyses required by the regulations. Leachate monitoring unit rate cost at cell sump equals **\$988.64/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 13 will require a replacement pump during the 30-year monitoring period:

- Annual maintenance = \$533.32/year
- Leachate pump replacement cost = (\$11,486.76) ÷ 30 years = \$382.89/year
- Total estimated annual cost for pumps = **\$916.21/year**

Cleaning: Assumed that one system cleaning/jetting every 10 years within the 30-year monitoring period will be required for Cell 13 (total of 3 cleanings).

- $(\$9,893.44 \times 3) / 30 \text{ years} = \mathbf{\$989.34/year}$ .

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 13.

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 13.

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 13.

## **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 13.

## **7. Gas System Maintenance**

Twenty-one (21) gas wells will eventually be installed within the footprint of Cell 13 (refer to Figure 3). It is estimated that an additional \$53.39 per well/year will be needed for operation ( $\$53.39 \times 21 \text{ wells} = \mathbf{\$1,121.19}$ ). Additionally, it is estimated that 25 ft of lateral or header piping will require replacement or repair at an average cost of \$53.39/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 18.04-acre area, the grass will be mowed four times per year at a cost of \$63.04 per acre. Mowing/maintenance:

- $(4 \text{ times/year}) \times (18.04 \text{ acres}) \times (\$63.04/\text{acre}) = \mathbf{\$4,548.97}$

## **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 13.

## **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 13.

## **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 13.

## **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 13.

**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 13.

**14. Administrative**

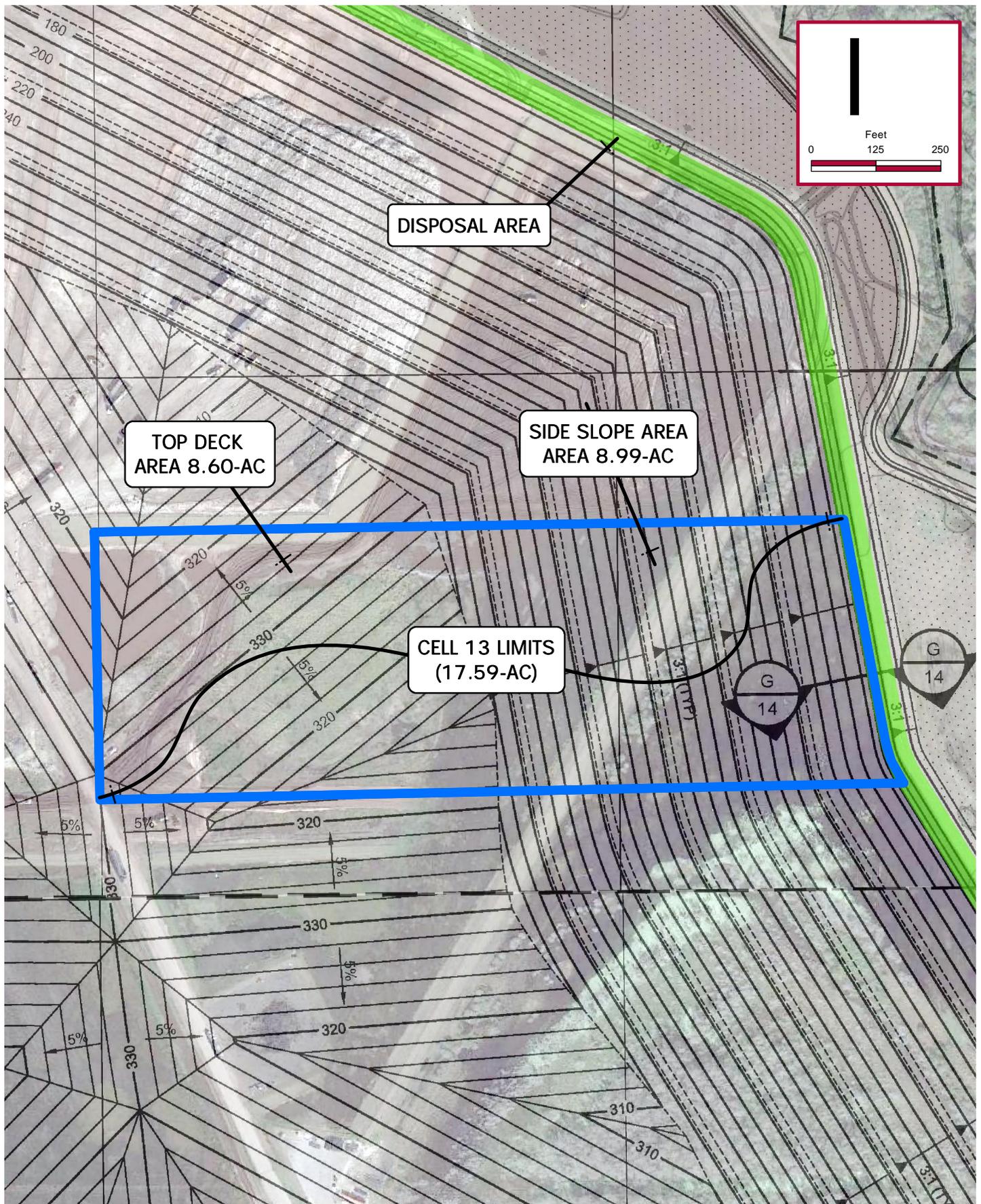
The administrative long-term care cost was included in the previously approved financial assurance cost estimate. Therefore, no additional cost is included as part of the long-term care cost estimate for Cell 13.

**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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 116 South Kentucky Avenue, Lakeland, FL 33801  
 Phone: 863 701 8702  
 www.kimley-horn.com CA 00000696

**CELL 13 FOOTPRINT AND AREAS**

**JED SOLID WASTE MANAGEMENT FACILITY  
 OSCEOLA COUNTY, FLORIDA**

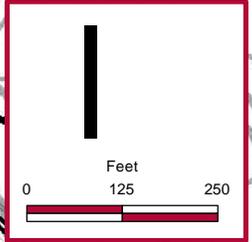
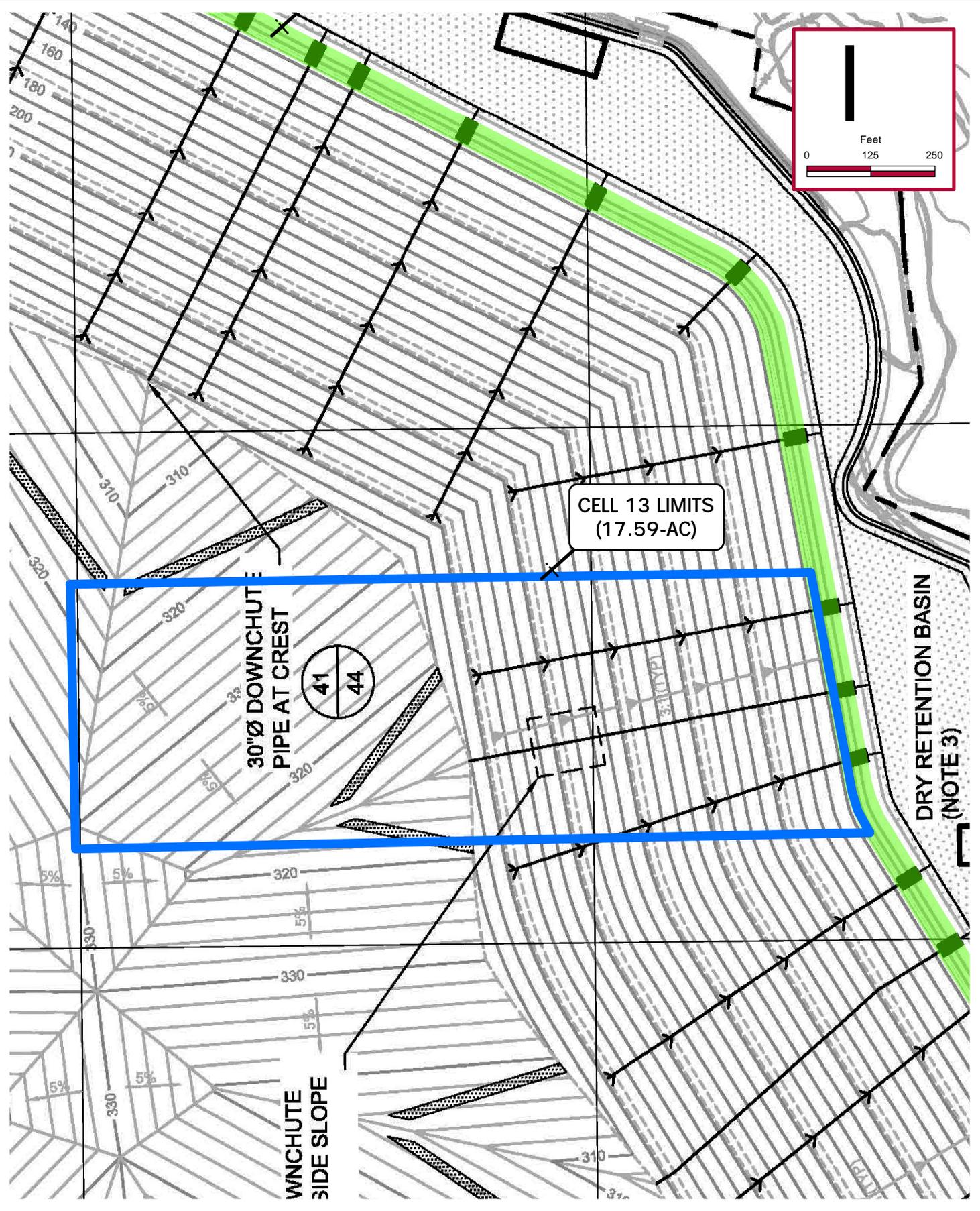
Scale: As Noted

Project No.: 148036045

January 2016

Figure 1

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Phone: 863 701 8702  
www.kimley-horn.com CA 00000696

**CELL 13 STORMWATER**

**JED SOLID WASTE MANAGEMENT FACILITY  
OSCEOLA COUNTY, FLORIDA**

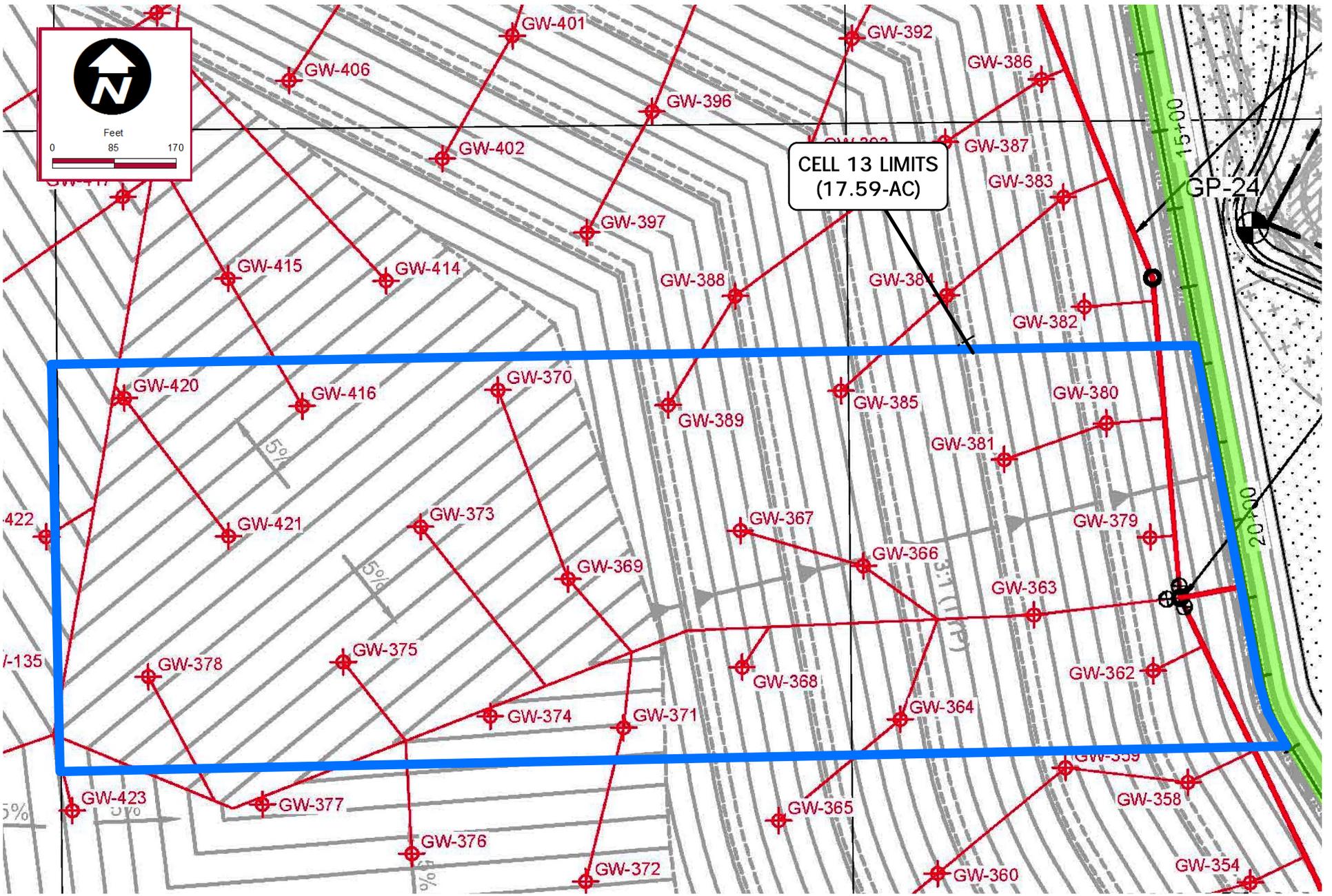
Scale: As Noted

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Figure 2

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Phone: 863 701 8702  
www.kimley-horn.com CA 00000696

CELL 13 GAS COLLECTION

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OSCEOLA COUNTY, FLORIDA

Scale: As Noted

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January 2016

Figure 3