

27 December 2012

ORIGINAL

Mr. Thomas Lubozynski, P.E.
Waste Program Administrator
Florida Department of Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

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Subject: Minor Modification Permit Application
Liner System Termination Modification
J.E.D. Solid Waste Management Facility (WACS #89544)
Osceola County, Florida

Dear Mr. Lubozynski:

Transmitted herein are four copies of the J.E.D. Solid Waste Management Facility (JED facility) Minor Modification Permit Application (Application). This Application is submitted on behalf of Omni Waste of Osceola County, LLC (Omni) for the JED facility located in St. Cloud, Florida. This Application package contains four (4) hard-copies of the Application, and one check in the amount of \$250 (in accordance with Rule 62-701.315(4), F.A.C.).

If you have any questions or need additional information, please do not hesitate to contact the undersigned.

Sincerely,


Victor M. Damasceno, Ph.D., P.E.
Project Engineer
Florida P.E. No. 72966

Attachment

Copies to: Michael Kaiser, WSI

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DEP General Services

Prepared for



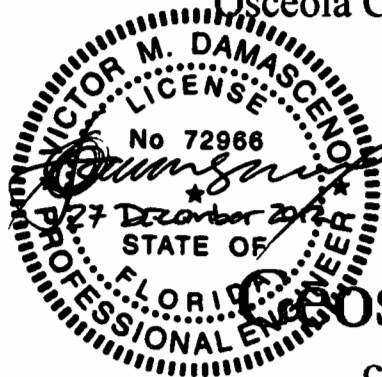
Omni Waste of Osceola County, LLC

1501 Omni Way
St. Cloud, Florida 34773

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**MINOR PERMIT MODIFICATION
APPLICATION: LINER SYSTEM
TERMINATION MODIFICATION**

J.E.D. Solid Waste Management Facility
Osceola County, Florida



Prepared by

Geosyntec
consultants
13101 Telecom Drive, Suite 120
Tampa, Florida 33637

Project No. FL2134

December 2012

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

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**MINOR MODIFICATION APPLICATION: LINER SYSTEM TERMINATION
MODIFICATION
J.E.D. SOLID WASTE MANAGEMENT FACILITY
OSCEOLA COUNTY, FLORIDA**

1 INTRODUCTION

Geosyntec Consultants (Geosyntec) has prepared this minor permit modification application (Application) to present the proposed modifications to the liner system termination for Cells 9 through 23 at the J.E.D. Solid Waste Management (JED) facility, located in Osceola County, Florida. The JED facility is owned and operated by Omni Waste of Osceola County, LLC (Omni), which is a wholly owned subsidiary of Waste Services, Inc. (WSI).

This Application is being submitted to the Florida Department of Environmental Protection (FDEP), Central District on behalf of Omni and has been prepared in accordance with Florida Administrative Code (F.A.C.) Chapter 62-701. The remainder of this Application provides: (i) a brief project background; (ii) a description of the proposed liner termination system; (iii) FDEP Form 62-701.900(1) – *Application for a Permit to Construct, Operate, Modify or Close a Solid Waste Management Facility* (Attachment 1); and (iv) replacement drawing sheets (Attachment 2). A check in the amount of \$250 for the permit fee is also included in this submittal package.

2 PROJECT BACKGROUND

Omni has expressed concern over landfill gas (LFG) migration outside of the anchor trench boundary in the existing cells (i.e., Cells 1 through 8) at the JED facility. Specifically, LFG appears to migrate up-slope along the primary geocomposite drainage layer on the intercell and perimeter berms of waste-filled cells. As presently designed and permitted, once LFG reaches the primary geocomposite termination along the intercell berm (i.e., inside anchor trench) and perimeter berm (i.e., 3 ft below crest of berm), LFG has a potential for migrating from the primary geocomposite into adjacent soils of the berms. Routine monitoring performed at water quality monitoring wells and perimeter LFG monitoring probes has indicated the presence of LFG migration beyond the disposal boundary.

Geosyntec understands that the primary geocomposite liner termination at the intercell berm for Cell 8 was field adjusted during construction in an attempt to reduce/eliminate LFG migration. The purpose of this Application is to formalize the use of a modified liner system



termination, to be implemented during the construction of Cells 9 through 23 in an attempt to prevent potential LFG migration in future cells.

3 LINER SYSTEM TERMINATION MODIFICATION

The proposed modification discussed herein has been prepared and is submitted as a proactive measure to control potential LFG from migrating beyond the limit-of-waste at the JED facility prior to closure activities. As previously stated, the currently permitted design may potentially allow excess LFG migration beyond the anchor trench along the perimeter and intercell berms. The liner system termination modification presented herein has been designed to reduce/eliminate LFG migration beyond the anchor trench of future cells (i.e., Cells 9 through 23).

The currently approved liner system terminations along the intercell and perimeter berms provide limited resistance to LFG migration beyond the disposal boundary, especially if the liner protective soils and adjacent berm soils become partially saturated near the surface (e.g., due to rain events). Collected monitoring data and observation by Omni personnel indicate that, once the soils reach a certain degree of saturation, the path of least resistance for LFG migration is horizontal towards the water quality monitoring wells and perimeter gas monitoring probes.

The currently permitted liner system termination design – approved under Permit No. SC49-0199726-017 – is presented in the Solid Waste Renewal Permit Application Drawings dated November 2011 (2011 Permit Drawings), submitted to FDEP as part of the Solid Waste Renewal Permit Application to Operate Phases 1 through 4 of the JED Solid Waste Management Facility.

The design presented herein provides a barrier to potential LFG migration into subsurface soils adjacent to the anchor trenches along the intercell and perimeter berms. The liner system termination modification consists of a 40-mil thick HDPE geomembrane flap welded to the primary 60-mil thick HDPE textured geomembrane. The 40-mil thick HDPE geomembrane flap will be welded near the crest of the intercell and perimeter berms to facilitate constructability and minimize potential issues associated with future tie-ins. Specifically, the closure design tie-in location on the perimeter berm and liner system tie-in at the intercell berm occurs at the anchor trench; therefore, welding the 40-mil thick HDPE geomembrane flap near the crest does not interfere with the tie-ins along the perimeter and intercell berms.

As shown on Detail I/7 (Liner System Termination at Intercell Berm) on Sheet 15 of the 2011 Permit Drawings, the primary geocomposite drainage layer terminates within the anchor

trench of the intercell berm. For constructability purposes, the proposed liner system termination at the intercell berm will be modified such that the primary geocomposite drainage layer terminates 3 ft below the crest of the intercell berm – similar to the perimeter berm design shown on Detail 3/11 on Sheet 16 of the 2011 Permit Drawings. This modification is required to allow the 40-mil thick HDPE geomembrane flap to be welded near the crest of the intercell berm. Consequently, a geocomposite drainage layer will be placed above the primary 60-mil thick HDPE textured geomembrane during the construction of adjacent cells to prevent potential leachate accumulation atop the intercell berms.

The proposed design modifications discussed herein are detailed on Sheets 15 and 16 provided in Attachment 2, specifically, Details I/7 (Liner System Termination at Intercell Berm), J/8 (Liner System Tie-in at Intercell Berm), and 3/11 (Anchor Trench at Crest of Perimeter Berm). The drawing sheets provided in Attachment 2 represent replacement sheets to the 2011 Permit Drawings.

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ATTACHMENT 1 – FDEP FORM 62-701.900(1)

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DES. REPORTS DIVISION



Florida Department of Environmental Protection

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

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

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

Effective Date: January 6, 2010

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

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

APPLICATION INSTRUCTIONS AND FORMS

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DEP Central District

Northwest District
160 Governmental Center
Pensacola, FL 32502-5794
850-695-8360

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 Pkwy
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 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600

INSTRUCTIONS TO APPLY FOR A SOLID WASTE MANAGEMENT FACILITY PERMIT

I. General

Solid Waste Management Facilities shall be permitted pursuant to Section 403.707, Florida Statutes, (FS) and in accordance with Florida Administrative Code (FAC) Chapter 62-701. A minimum of four copies of the application shall be submitted to the Department's District Office having jurisdiction over the facility. The appropriate fee in accordance with Rule 62-701.315, FAC, shall be submitted with the application by check made payable to the Department of Environmental Protection (DEP).

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

II. Application Parts Required for Construction and Operation Permits

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

NOTE: Portions of some Parts may not be applicable.

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

III. Application Parts Required for Closure Permits

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

NOTE: Portions of some Parts may not be applicable.

IV. Permit Renewals

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

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V. Application Codes

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

VI. LISTING OF APPLICATION PARTS

PART A:	GENERAL INFORMATION
PART B:	DISPOSAL FACILITY GENERAL INFORMATION
PART C:	PROHIBITIONS
PART D:	SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL
PART E:	LANDFILL PERMIT REQUIREMENTS
PART F:	GENERAL CRITERIA FOR LANDFILLS
PART G:	LANDFILL CONSTRUCTION REQUIREMENTS
PART H:	HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS
PART I:	GEOTECHNICAL INVESTIGATION REQUIREMENTS
PART J:	VERTICAL EXPANSION OF LANDFILLS
PART K:	LANDFILL OPERATION REQUIREMENTS
PART L:	WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS
PART M:	SPECIAL WASTE HANDLING REQUIREMENTS
PART N:	GAS MANAGEMENT SYSTEM REQUIREMENTS
PART O:	LANDFILL CLOSURE REQUIREMENTS
PART P:	OTHER CLOSURE PROCEDURES
PART Q:	LONG-TERM CARE
PART R:	FINANCIAL ASSURANCE
PART S:	CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

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

Please Type or Print

PART A. GENERAL INFORMATION

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

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

NOTE: Waste Processing Facilities should apply on Form 62-701.900(4), FAC;
Land Clearing Disposal Facilities should notify on Form 62-701.900(3), FAC;
Compost Facilities should apply on Form 62-701.900(10), FAC; and
C&D Disposal Facilities should apply on Form 62-701.900(6), FAC

2. Type of application:

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

3. Classification of application:

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

4. Facility name: J.E.D. Solid Waste Management Facility

5. DEP ID number: 89544 (WACS) County: Osceola

6. Facility location (main entrance):
1501 Omni Way, St. Cloud, FL 34773

7. Location coordinates:

Section: 11,13,14,17, & 18 Township: 28S Range: 32E & 33E

Latitude: 28° 3' 32" Longitude: 81° 5' 46"

Datum: WGS84 Coordinate Method: DGPS

Collected by: Johnston's Surveying Company/Affiliation: Johnston's Surveying

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DEP Central Records

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DEP. CONTR. BUREAU

1. Applicant:

_____ is aware that statements made in this form and attached

Mitru K
Signature of Applicant or Agent

Date: 12/19/12

Date: 27 Dec 2012

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Diet Center Diet



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", written over a horizontal line.

William P. Hulligan
Manager

Waste Services, Inc.

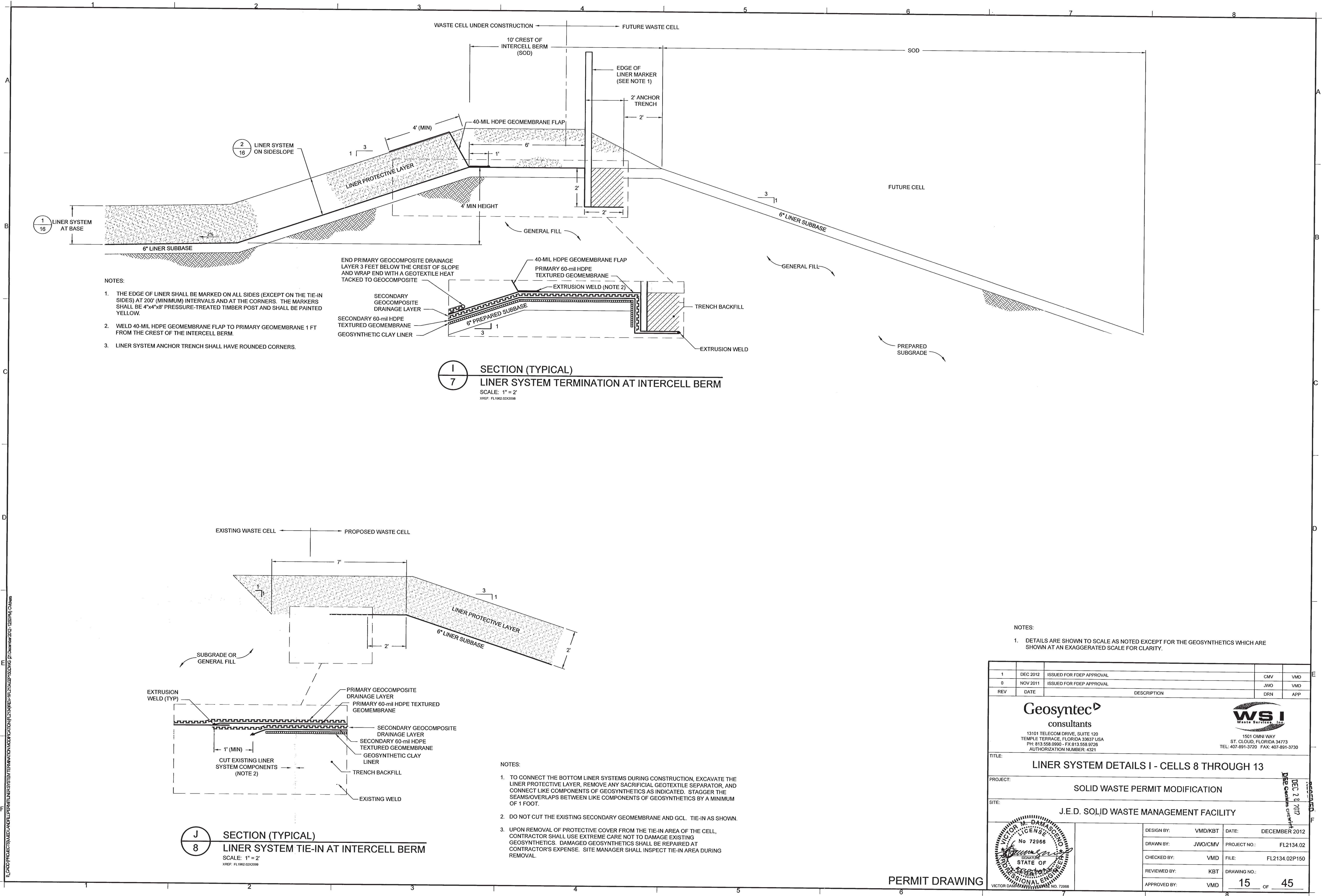
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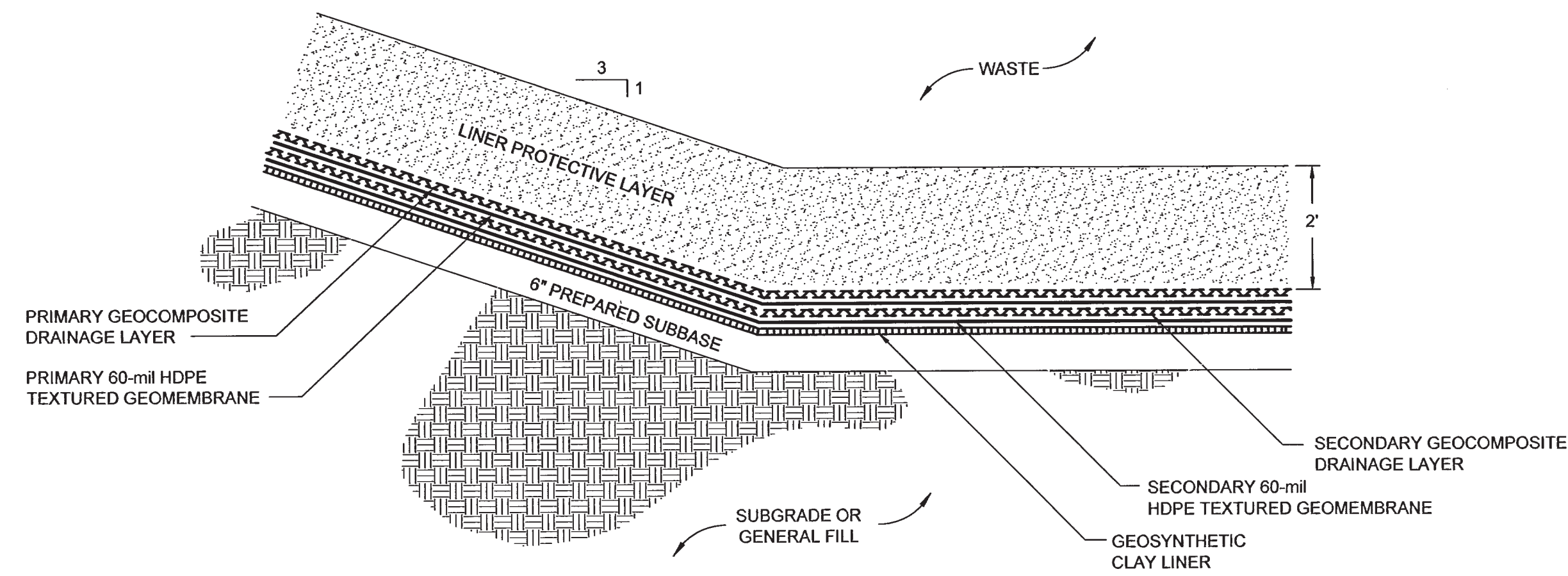
William P. Hulligan
Executive Vice President, U.S. Operations

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DER Central District

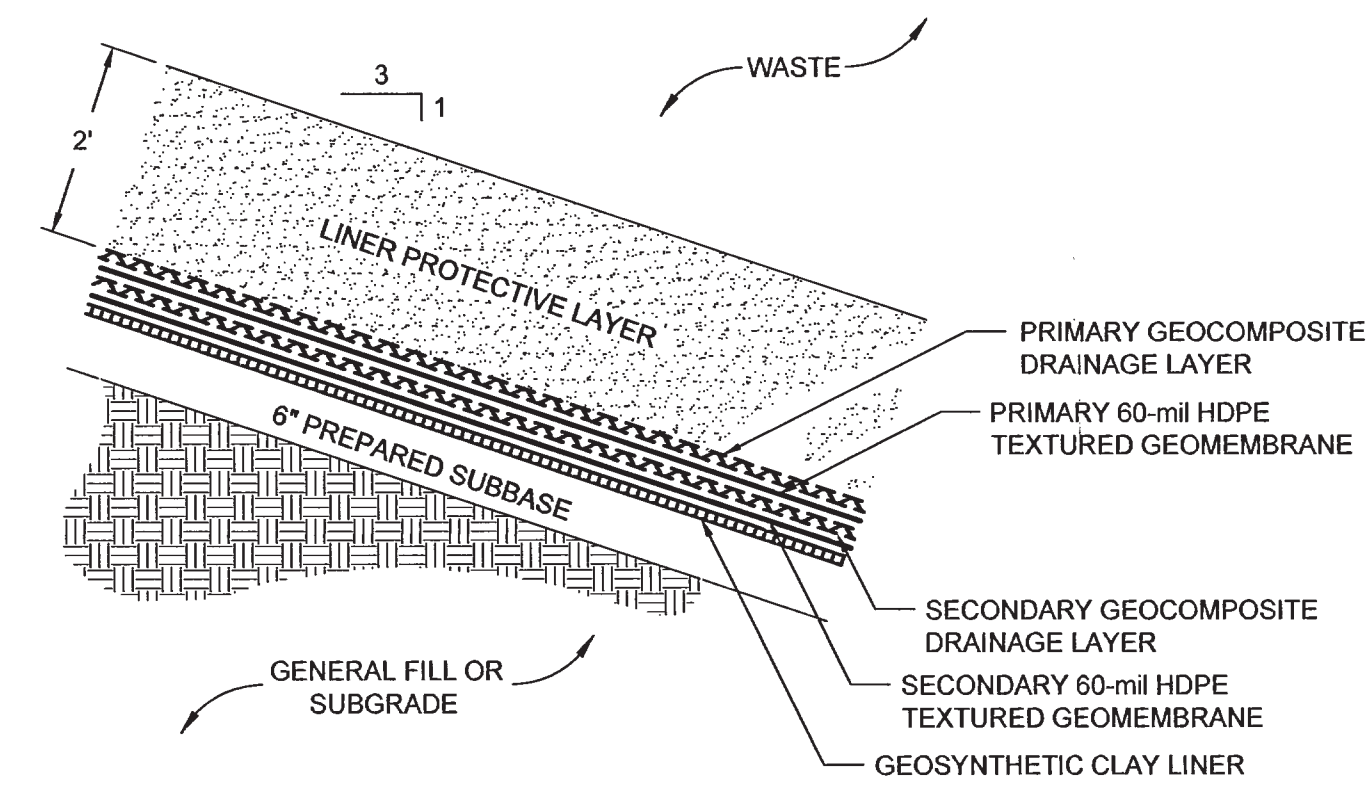
ATTACHMENT 2 – REPLACEMENT PAGES

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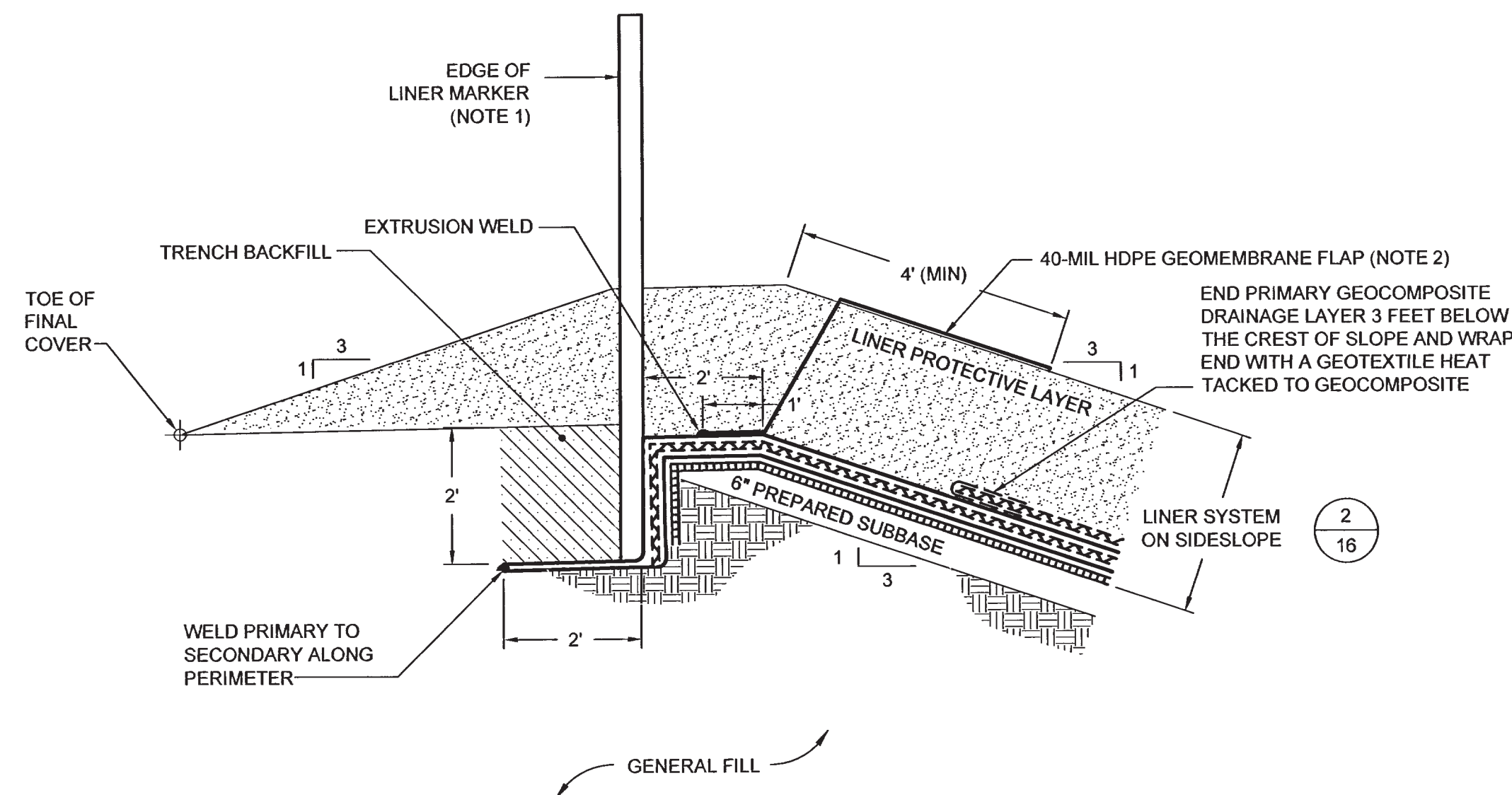




1
11 DETAIL (TYPICAL)
LINER SYSTEM AT BASE
SCALE: 1" = 2'
XREF: FL1962.02X2004



2
11 DETAIL (TYPICAL)
LINER SYSTEM ON SIDESLOPE
SCALE: 1" = 2'
XREF: FL1962.02X2014



3
11 DETAIL (TYPICAL)
ANCHOR TRENCH AT CREST OF PERIMETER BERM
SCALE: 1" = 2'
XREF: FL1962.02X2003

NOTES:

1. THE EDGE OF LINER SHALL BE MARKED AT 200' (MINIMUM) INTERVALS AS SHOWN ON SHEET 4. THE MARKERS SHALL BE 4"x4"x8' PRESSURE-TREATED TIMBER POST AND SHALL BE PAINTED YELLOW.
2. 40-MIL HDPE GEOMEMBRANE FLAP SHALL BE REMOVED, AS NEEDED, DURING FINAL CLOSURE ACTIVITIES.
3. LINER SYSTEM ANCHOR TRENCH SHALL HAVE ROUNDED CORNERS.

NOTES:

1. DETAILS ARE SHOWN TO SCALE AS NOTED EXCEPT FOR THE GEOSYNTHETICS WHICH ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY.

1	DEC 2012	ISSUED FOR FDEP APPROVAL	CMV	VMD
0	NOV 2011	ISSUED FOR FDEP APPROVAL	JWO	VMD
REV	DATE	DESCRIPTION	DRN	APP

Geosyntec
consultants

13101 TELECOM DRIVE, SUITE 120
TEMPLE TERRACE, FLORIDA 33637 USA
PH: 813.558.0990 - FX 813.558.9726
AUTHORIZATION NUMBER: 4321

WSI
Waste Services, Inc.

1501 OMNI WAY
ST. CLOUD, FLORIDA 34773
TEL: 407-891-3720 FAX: 407-891-3730

TITLE: **LINER SYSTEM DETAILS II - CELLS 8 THROUGH 13**

PROJECT: **SOLID WASTE PERMIT MODIFICATION**

SITE: **J.E.D. SOLID WASTE MANAGEMENT FACILITY**

VICTOR M. DAMASCENO
No 72968
STATE OF FLORIDA
PROFESSIONAL ENGINEER

DESIGN BY: VMD/KBT DATE: DECEMBER 2012

DRAWN BY: JWO/CMV PROJECT NO.: FL2134.02

CHECKED BY: VMD FILE: FL2134.02P160

REVIEWED BY: KBT DRAWING NO.: 16 OF 45

APPROVED BY: VMD

PERMIT DRAWING