ATKINS

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www.atkinsglobal.com/northamerica

April 7, 2011

Susan J. Pelz, P.E.
Solid Waste Manager
Southwest District
13051 North Telecom Parkway
Temple Terrace, Florida 33637

Dept. Of Environmental Protection
APR 14 2011
Southwest District

RE: Lena Road Landfill, Manatee County
WACS ID No.: SWD-41-44795
Landfill Operation Permit No.: 39884-018-SO/01
Landfill Capacity Report for 2011

Dear Ms. Pelz:

ATKINS, on behalf of Manatee County, is submitting this information required by Landfill Operation Permit Specific Condition C.13. Method and Sequence of Filling - Subpart e.

Based on the topographic map developed from the February 13, 2011 aerial photograph, and the average solid waste filling rate of 485,000 cubic yards over the last 7 years, we project the landfill has a remaining life of 31.8 years, and a landfill closure date of 2043. Enclosed are the following:

- Spreadsheet entitled "Manatee County Lena Road Landfill – Remaining Landfill Life Estimate - 2011" dated April 7, 2011.
- Chart 1 "Plot of Cumulative Landfill Volume Consumed and Tons In place - September 9, 1991-February 13, 2011"
- Stage I, II and III Landfill topography
- Stage I Landfill topography
- Stage II Landfill topography
- Stage III Landfill topography
- Stage I Landfill aerial photograph
- Stage II Landfill aerial photograph
- Stage III Landfill aerial photograph

The survey demonstrates that the above-grade side slopes are no greater than the design slopes, that the top elevation does not exceed the design elevation, and that all other design features and related improvements conform to the Department approved permit drawings.

Sincerely,

Joseph D. Miller, P.E. #39172
Project Engineer

Cc: Bryan White, Manatee County w/ spread sheet and chart only

u:\so\projects\manatee ii\wa-1 monitoring\aerial photograph 2011\landfill life ltr to fdep apr 7 2011.doc

Manatee County Lena Road Landfill

REMAINING LANDFILL LIFE ESTIMATE - 2011

APRIL 7, 2011

Landfill	Estimated Design Capacity Cubic Yards	Estimated Volume Used as of January 25, 2010 Cubic Yards	Estimated Volume Used Jan. 25, 2010 to Feb. 13, 2011 Cubic Yards	Estimated Volume Remaining as of January 25, 2010 Cubic Yards
Stage I	13,179,520	13,158,153	Note 2	-
Stage II	12,705,440	-	-	12,705,440
Stage III	6,751,640	3,590,300	465,400	2,695,940
Totals	32,636,600	16,748,453	465,400	15,401,380

Remaining Landfill Life in Years Based on Annualized Filling Rate (See Note 3) **31.8**

Estimated Landfill Closure Year **2043**

Notes:

1. Landfill volume change was calculated by I.F. Rooks & Associates, Inc. based on an aerial photograph taken on February 13, 2011.
2. Solid waste disposal moved from the Stage I Landfill to the Stage III Landfill on January 15, 2004.
   The Stage III Landfill already had 659,000 CY of solid waste disposed of in it prior to January 15, 2004.
3. The filling rate for the Stage III Landfill between January 15, 2004 and February 13, 2011 has averaged 485,000 cubic yards per year.
   This average filling rate was used to project the remaining landfill life and the estimated landfill closure year.

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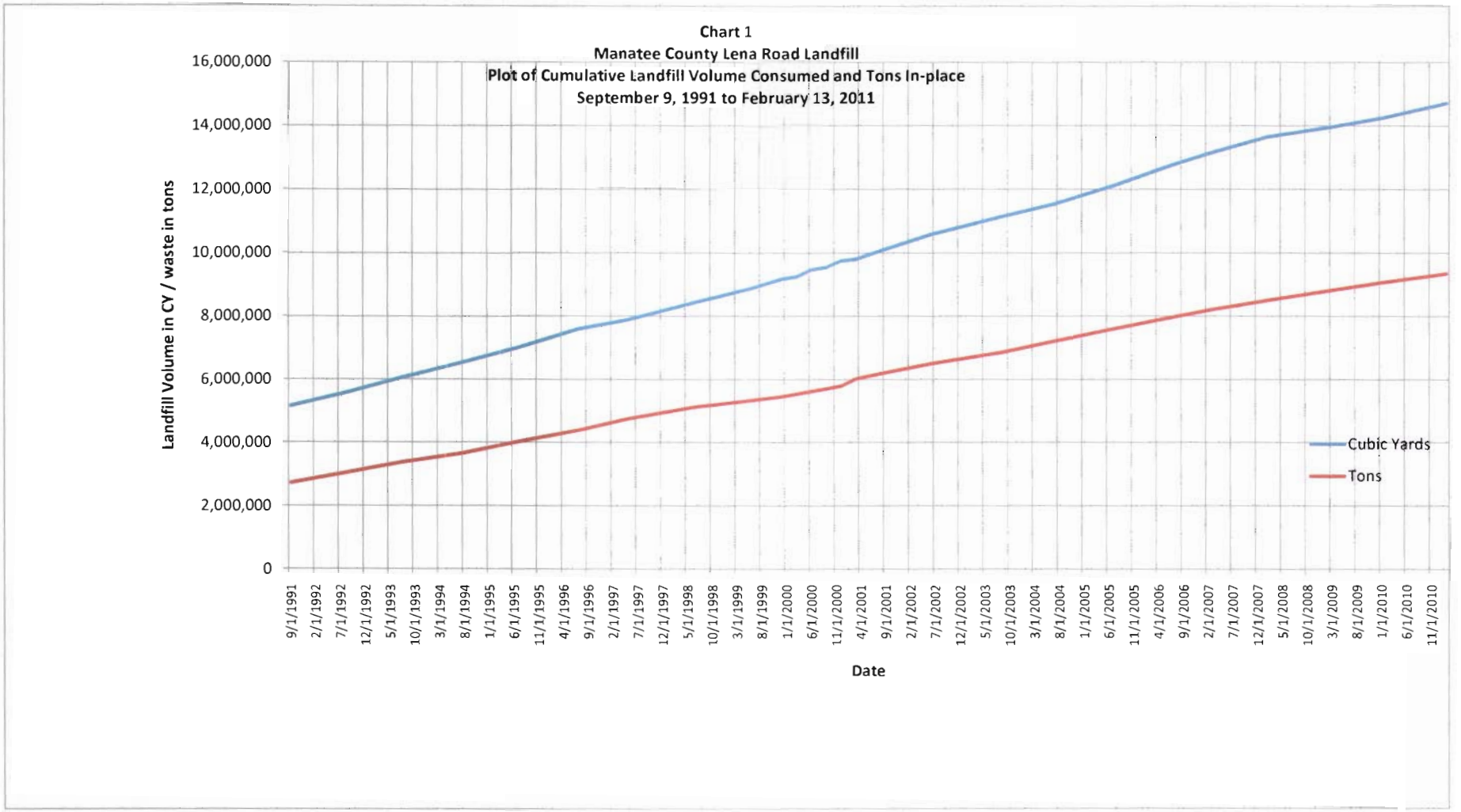

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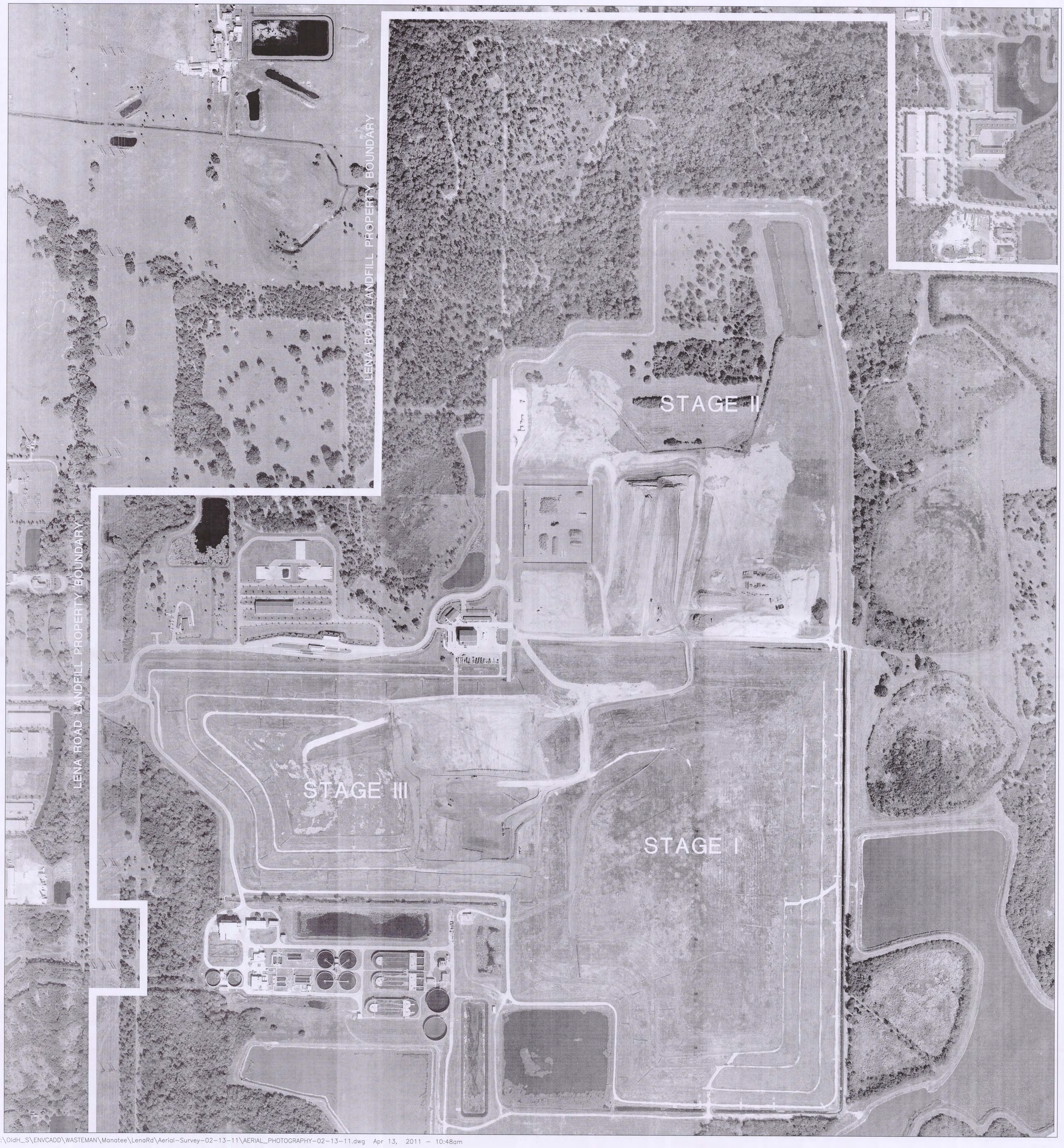

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MANATEE COUNTY
LENA ROAD LANDFILL
STAGES I, II AND III
PHOTOGRAPH

AERIAL PHOTOGRAPHY PROVIDED BY:
I.F. ROOKS & ASSOCIATES, INC.
DATE FLOWN: 02-13-2011

MANATEE COUNTY GOVERMENT
TO SERVE WITH EXCELLENCE

UTILITY OPERATIONS DEPARTMENT
DANIEL T. GRAY - DIRECTOR

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 14 2011
SOUTHWEST DISTRICT TAMPA

NORTH

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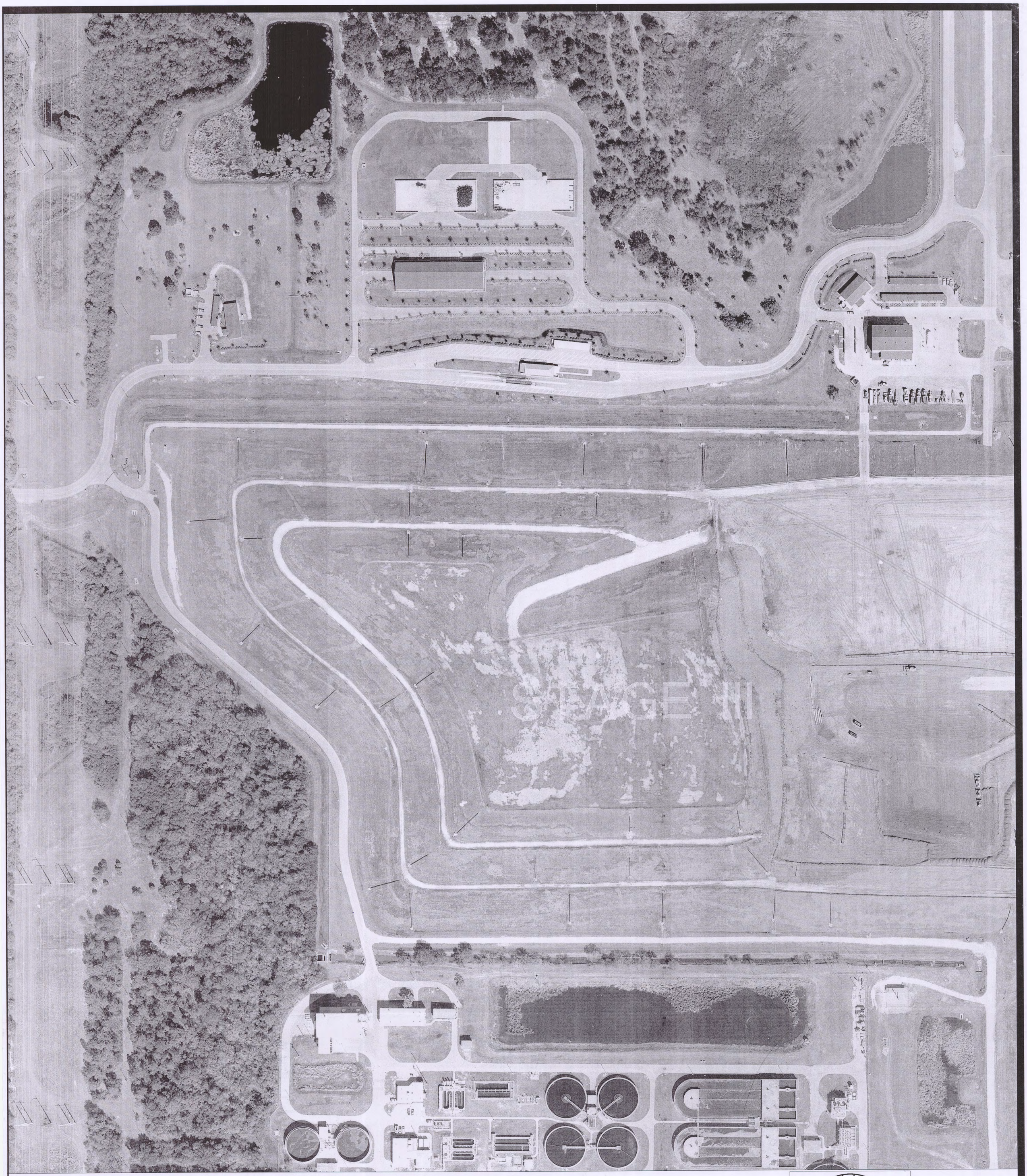
GRAPHIC SCALE
SCALE: 1" = 200'



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AERIAL PHOTOGRAPHY PROVIDED BY:
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DATE FLOWN: 02-13-2011

MANATEE COUNTY
LENA ROAD LANDFILL
STAGE III
AERIAL PHOTOGRAPH

MANATEE COUNTY GOVERMENT
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UTILITY OPERATIONS DEPARTMENT
DANIEL T. GRAY - DIRECTOR

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 14 2011
SOUTHWEST DISTRICT TAMPA

NORTH

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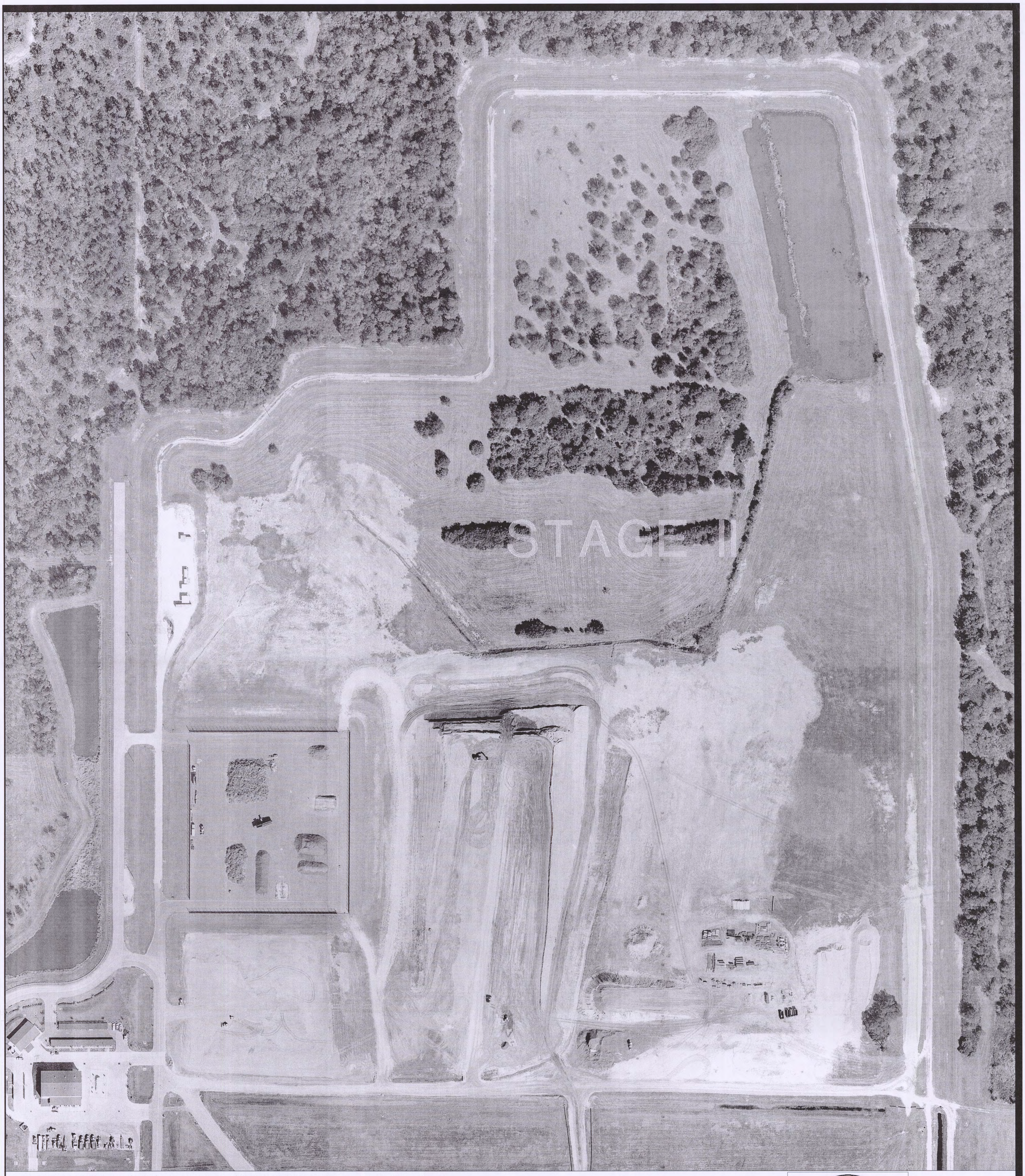
GRAPHIC SCALE
SCALE: 1" = 80'



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MANATEE COUNTY
LENA ROAD LANDFILL
STAGE II
AERIAL PHOTOGRAPH

AERIAL PHOTOGRAPHY PROVIDED BY:
I.F. ROOKS & ASSOCIATES, INC.
DATE FLOWN: 02-13-2011

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 14 2011
SOUTHWEST DISTRICT TAMPA

NORTH

0 40 80 160
GRAPHIC SCALE
SCALE: 1" = 80'

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DATE FLOWN: 02-13-2011

MANATEE COUNTY
LENA ROAD LANDFILL
STAGE I
AERIAL PHOTOGRAPH

MANATEE COUNTY GOVERMENT
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UTILITY OPERATIONS DEPARTMENT
DANIEL T. GRAY - DIRECTOR

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 14 2011
SOUTHWEST DISTRICT TAMPA

NORTH

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GRAPHIC SCALE
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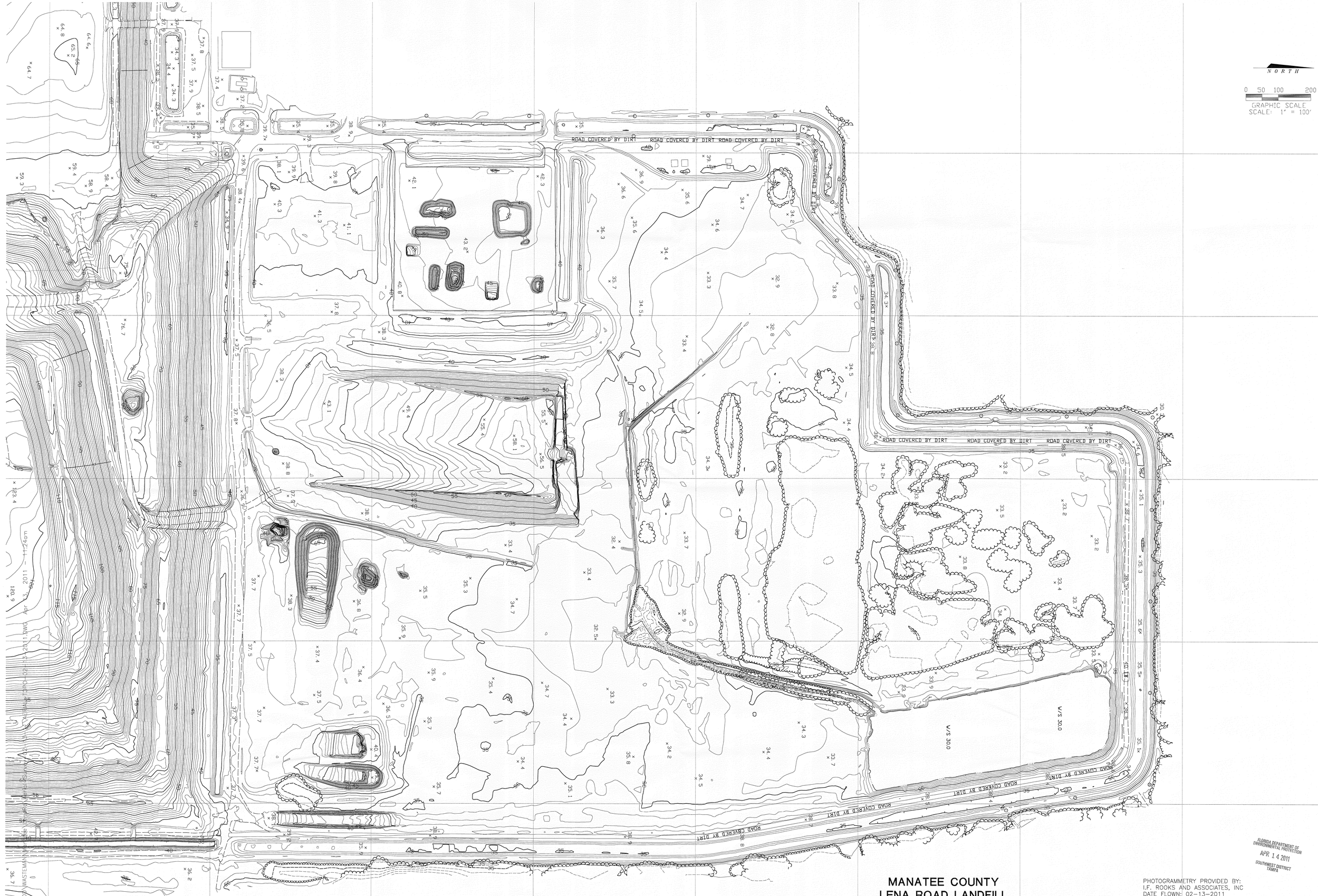

MANATEE COUNTY
LENA ROAD LANDFILL
STAGE II AERIAL SURVEY

PHOTOGRAMMETRY PROVIDED BY:
I.F. ROOKS AND ASSOCIATES, INC
DATE FLOWN: 02-13-2011

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 14 2011
SOUTHWEST DISTRICT TAMPA

NORTH

0 100 200 400

GRAPHIC SCALE
SCALE: 1" = 200'

STAGE III

STAGE I

STAGE II

Dept. Of Environmental Protection
APR 14 2011
Southwest District

MANATEE COUNTY
LENA ROAD LANDFILL
STAGES I, II AND III
AERIAL SURVEY

PHOTOGRAMMETRY PROVIDED BY:
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DATE FLOWN: 02-13-11

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MANATEE COUNTY
LENA ROAD LANDFILL
STAGE I AERIAL SURVEY

PHOTOGRAMMETRY PROVIDED BY:
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DATE FLOWN: 02-13-2011

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR 14 2011
SOUTHWEST DISTRICT TAMPA

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MANATEE COUNTY
LENA ROAD LANDFILL
STAGE III AERIAL SURVEY

PHOTOGRAMMETRY PROVIDED BY:
I.F. ROOKS AND ASSOCIATES, INC
DATE FLOWN: 02-13-2011

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NORTH

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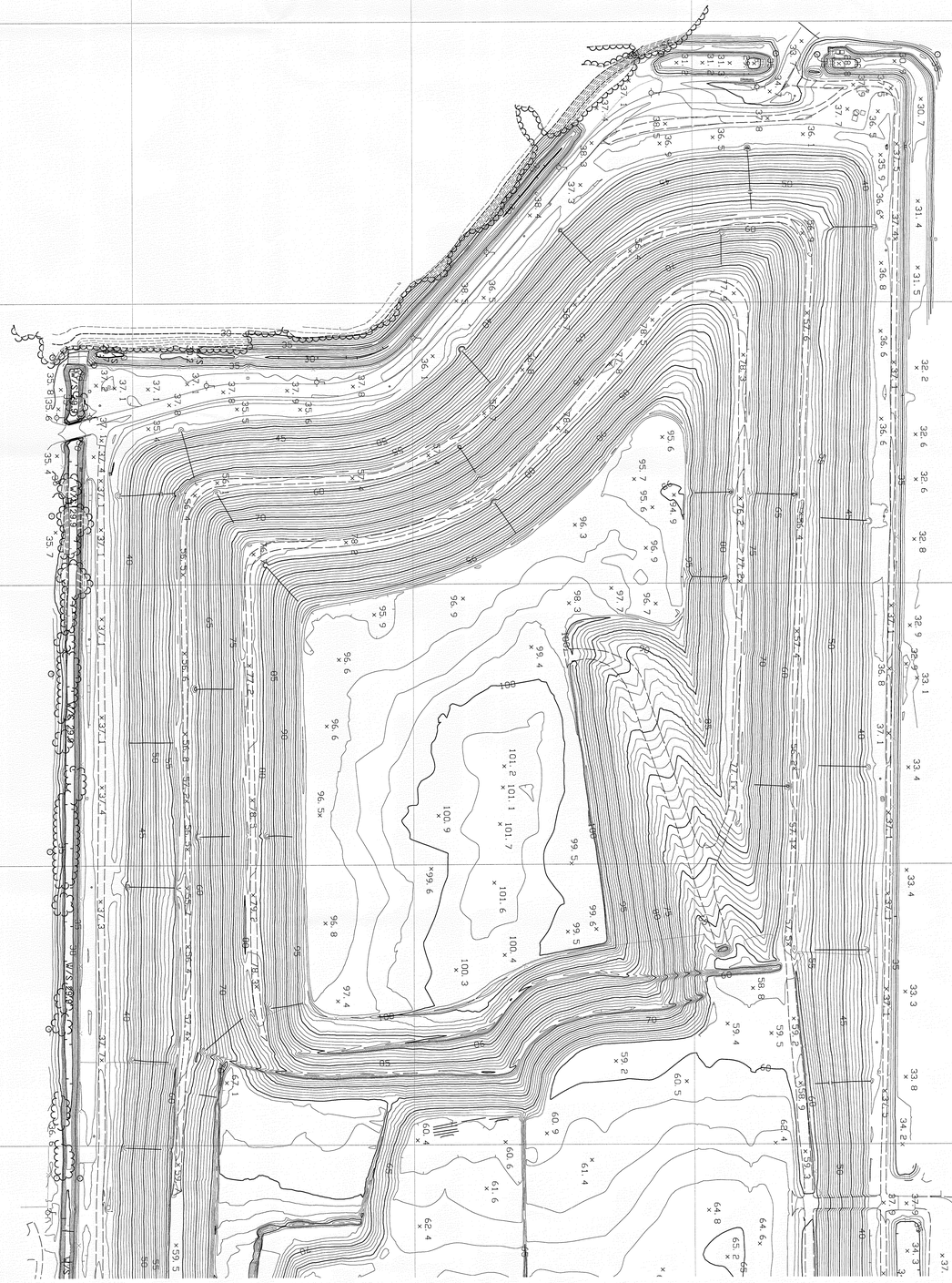
GRAPHIC SCALE
SCALE: 1" = 100'



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ENVIRONMENTAL PROTECTION
APR 14 2011
SOUTHWEST DISTRICT
TAMPA

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