

# Permit Renewal Application

**APPROVED**

DIVISION OF WASTE MANAGEMENT  
SOLID WASTE SECTION

Date 08/14/2014 By Patricia M. Beckus

DIN 21132

Attachment 1 Part V Document 8  
Permit 92N-LCID-1986 Permit DIN 21521

## Sunset Lake LCID Landfill & Recycling Facility Holly Springs, North Carolina

Prepared for:

**Currin Bros. Inc.**  
**Raleigh, North Carolina**

**April 2014**

Prepared by:

**SMITH+GARDNER**

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



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*This document is intended for the sole use of the client for which it was prepared and  
for the purpose agreed upon by the client and Smith Gardner, Inc.*

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May 8, 2014

Ms. Patricia Backus, P.E.  
*Environmental Engineer*  
**NCDENR Division of Waste Management**  
217 W. Jones Street  
Raleigh, North Carolina

**RE: Permit Renewal Application  
Sunset Lake LCID Landfill & Recycling Facility  
NC Solid Waste Permit No. 92N**

Dear Ms. Backus:

On behalf of Currin Bros. Inc., Smith Gardner, Inc. (S+G) is submitting the enclosed permit renewal application for their Sunset Lake LCID & Recycling Facility in Holly Springs, North Carolina.

In December 2013 S+G submitted the Revised Final Cover Grading Plan. Since we revised the grading plan it was mutually agreed that we would submit their permit renewal prior to its June 3, 2015 expiration date.

We appreciate your attention to this matter. Please contact us with questions at (919) 828-0577 or by email below.

Sincerely,  
**SMITH GARDNER, INC.**



Madeline German, P.G.  
Project Geologist  
[madeline@smithgardnerinc.com](mailto:madeline@smithgardnerinc.com)

Attachment

cc: Mr. Allen Currin, Currin Bros. Inc.  
Ms. Shawn McKee, NCDENR  
File

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# Permit Renewal Application

**Sunset Lake LCID Landfill & Recycling Facility  
Holly Springs, North Carolina**

Prepared For:  
**Currin Bros. Inc.  
Raleigh, North Carolina**

**S+6 Project No. Currin 13-1**

### Applicant Certification

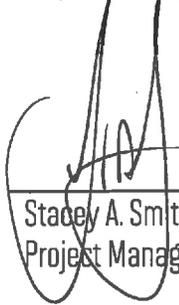
*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision and that the information provided in this application is true, accurate, and complete to the best of my knowledge.*

*I understand that North Carolina General Statute 130A-22 provides for administrative penalties of up to fifteen thousand dollars (\$15,000.00) per day per each violation of the Solid Waste Management Rules. I further understand that the Solid Waste Management Rules may be revised or amended in the future and that the facility siting and operations of this solid waste management facility will be required to comply with all such revisions or amendments.*

  
Allen Currin  
Currin Bros., Inc.

  
Date

  
Madeline German, P.G.  
Project Geologist

  
Stacey A. Smith, P.E.  
Project Manager



**April 2014**

# SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

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# Sunset Lake LCID Landfill & Recycling Facility Holly Springs, North Carolina

## Permit Renewal Application

### Table of Contents

*North Carolina Solid Waste Management (15A NCAC 13B .0560) rules, Application Guidance for Land Clearing and Inert Debris (LCID) Landfill and the Solid Waste Management Act of 2007 addressed in each section of this document are shown in italics after each section.*

#### **Executive Summary**

|                     |   |
|---------------------|---|
| <b>Attachment A</b> | <b>Permit Documentation</b><br><i>(15A NCAC 13B.0565)</i>           |
| <b>Attachment B</b> | <b>Legal Description of Property</b><br><i>(15A NCAC 13B.0565)</i>  |
| <b>Attachment C</b> | <b>Zoning Documents</b><br><i>(15A NCAC 13B.0565)</i>               |
| <b>Attachment D</b> | <b>Operations Manual</b><br><i>(15A NCAC 13B.0566)</i>              |
| <b>Attachment E</b> | <b>Soil Boring Logs</b><br><i>(15A NCAC 13B.0565)</i>               |
| <b>Attachment F</b> | <b>Existing Survey &amp; Airspace</b><br><i>(15A NCAC 13B.0565)</i> |

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## EXECUTIVE SUMMARY

The following is a Permit Renewal Application submitted on behalf of Currin Bros. Inc. for operation of a Land Clearing and Inert Debris (LCID) Landfill at their Sunset Lake Road facility in Holly Springs, Wake County, North Carolina (NC Solid Waste Permit No. 92N). Currin Bros. Inc. intend to continue facility operation following approval of this application.

The proposed use for the site includes the continuation of LCID waste acceptance and wood processing (recycling) operation. The site is currently operating under NC Solid Waste Permit Number 92N. The current permit expires on June 3, 2015, a copy is provided in **Attachment A**.

## REGULATORY REFERENCES

This submittal has been prepared in accordance with the requirements of the North Carolina Administrative Code (15A NCAC 13B.0565) regarding application requirements for LCID landfills, *Application Guidance LCID Landfill Permit*, and the Solid Waste Management Act of 2007 which are enforced by the Division of Waste Management (DWM) of the North Carolina Department of Environment and Natural Resources.

Included in the document attachments are the following *(with applicable rule(s) in italics)*:

Legal Description of the Property *(15A NCAC 13B.0565(1)(e))*;  
Zoning Documents *(15A NCAC 13B.0565(1)(a))*;  
Operations Manual *(15A NCAC 13B.0566)*;  
Soil Boring Logs *(15A NCAC 13B.0565(3)(n))*;  
Surface Water Assessment *(15A NCAC 13B.0565(2)(c))*;  
As-Built/Existing Survey *(Guidance Document)*; and  
Project Drawings *(15A NCAC 13B.0565(3))*.

## PROPERTY DESCRIPTION

The table below lists the property owners and the deed book references for the landfill facility. The continuing development does not impact any additional properties. Legal descriptions are included in **Attachment B**.

### Landfill Property Owners:

| Property Owner    | Deed Book Reference | Deed Book Page Reference | Area (acres) |
|-------------------|---------------------|--------------------------|--------------|
| Currin Bros. Inc. | 6000                | 0178-180                 | 62.93 + 2.03 |
| Currin Bros. Inc. | 3670                | 825-827                  | 18.68        |

## BUFFERS

All buffers were satisfied for the landfill during initial site permitting<sup>1</sup>.

## PROPERTY OWNERSHIP AND OPERATION

The proposed facility is owned and operated by the Currin Bros. Inc., a NC Corporation. Contact information for Currin Bros. Inc. is as follows:

Operator: Currin Bros. Inc.  
Contact: Allen Currin  
Address: 1610 Wolfpack Lane  
Raleigh, NC 27609  
Phone: 919-876-1138

## APPLICATION REQUIREMENTS

The following sections correspond with the permit application for a LCID facility as outlined in the *Application Guidance for LCID Landfill Permit*.

### ZONING

The site is zoned as Light Industrial (LI) according to the Wake County GIS/Apex Zoning, and is located in a generally rural residential area. The current facility has been operating under a Special Use Permit (No. SU-1968-03). A copy of this approval is included in **Attachment C**. The proposed landfill activities are allowed under this approval.

### OPERATIONS MANUAL

The Operations Manual outlines and describes protocols for facility operation and maintenance and was prepared to provide Landfill personnel with a clear understanding of how the Design Engineer assumed that the completed facility would be operated. Along with the Project Drawings, the Operations Manual has been prepared to comply with the requirements of *15A NCAC 13B.0566*. A copy of the Operations Manual is included in **Attachment D**.

### SITING AND DESIGN STANDARDS

The following sections explain how the LCID facility complies with siting and design standards in *15A NCAC 13B.0564*.

---

<sup>1</sup> Wake County Permit to Operate, #86-001, March 4, 1986.

### Floodplain

The facility is not located within a floodplain. A copy of the Surface Water Determination for this area is included in **Attachment A**. Landfill development is outside Middle Creek buffers.

### Surface Water Quality Standards

The facility is bisected by a tributary of Middle Creek. All runoff within the facility boundary is directed towards specified drainage area or on-site wetlands. The facility will only accept Land Clearing and Inert Debris materials. The site does not include any wetlands within the developed/used area. LCID landfills do not require stormwater permits.

### Public Access

The site does not allow uncontrolled public access. The primary entrance road to the site passes the guard house and both drives to Sunset Lake Road have locked gates that prevent unauthorized access. The facility is bordered by woods and maintains a perimeter fence.

## EXISTING AND FUTURE AIRSPACE SURVEY

Following an aerial survey performed on May 12, 2013, S+G performed a review of site remaining capacity which is presented in **Table 1** (below) and based on the proposed grading presented herein.

**Table 1 – Volume Summary**

| Landfill Unit | Area (Acres) | Gross Capacity (CY) | Net (Debris) Capacity (CY) | Life Expectancy (Years) |
|---------------|--------------|---------------------|----------------------------|-------------------------|
| Phase 1-2A    | 37.1         | 2,794,300           | 580,000                    | 19                      |
| Phase 2B      | 8.3          | 545,700             | 60,000                     | 2                       |
| Phase 3       | 2.7          | 108,500             | 1,700                      | 0                       |
| <b>Total:</b> | <b>48.1</b>  | <b>3,448,500</b>    | <b>641,700</b>             | <b>21</b>               |

Note: Life expectancy for the facility is based on the net capacity remaining and is based on an annual incoming volume of 150,000 CY with a recovery rate of 80% through the facility recycling operations.

The facility has been performing a high level of debris recovery including mining previously filled areas within the landfill footprint. Based on our analysis, the site has managed a recovery rate of approximately 80%; wherein most of the woody debris has been sold as boiler fuel and the recovered soil has been similarly sold for re-use in general grading projects. The updated existing conditions of the site are presented with respect to the on-site streams and wetlands through delineation and determination with the U.S. Army Corps of Engineers and the NCDENR Division of Water Resources

The site plan drawings, including a survey and AutoCAD volume analysis isopach drawings, were prepared by a professional engineer duly registered in the State of North Carolina and are provided in **Attachment F**.

**Attachment A**

**Permit Documentation**

**Permit Renewal Application  
Sunset Lake LCID Landfill & Recycling Facility  
Holly Springs, North Carolina**

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Facility Permit No: 92-N  
Curring Brothers LCID Landfill  
Permit to Construct and Operate  
June 3, 2010  
Doc ID No. 17234  
Page 1 of 9

North Carolina Department of Environment and Natural Resources  
Division of Waste Management

Beverly Eaves Perdue  
Governor

Dexter R. Matthews  
Director

Dee Freeman  
Secretary

STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF WASTE MANAGEMENT  
SOLID WASTE SECTION

**LAND CLEARING AND INERT DEBRIS (LCID) LANDFILL  
PERMIT NO. 92-N**

CURRIN BROTHERS INC

is hereby issued a

**PERMIT TO CONSTRUCT AND OPERATE**

CURRIN BROTHERS LANDFILL

PHASES 1, 2, AND 3

Located east of the intersection of NC 55 and SR 1301 in the White Oak Township, Wake County, North Carolina in accordance with Article 9, Chapter 130A, of the General Statutes of North Carolina and all rules promulgated thereunder and subject to the conditions set forth in this permit. The legal description of the site is identified on the deed recorded for this property listed in Attachment No. 1 of this permit.

Digitally signed by Edward F. Mussler  
III, P.E.  
DN: cn=Edward F. Mussler III, P.E.,  
o=Solid Waste Section, ou=NC DWM,  
email=ed.mussler@ncdenr.gov, c=US  
Date: 2012.09.24 10:21:28 -04'00'

Edward F. Mussler, III, P.E.  
Permitting Branch Supervisor  
Solid Waste Section

## ATTACHMENT 1

### PART I: PERMITTING HISTORY

| Permit   | DB PG           | Date              | Doc ID No. |
|--|-----------------|-------------------|------------|
| Wake County Permit To Operate, #86-001   | 3670 825-827    | March 4, 1986     | n/a        |
| Wake County Permit To Construct, Areas 1 and 2, Permit No. 86-001/DEHNR Permit No. 92-S    | 7033 0077-80    | June 18, 1996     | n/a        |
| Wake Count Permit To Construct, Phases 1,2, and 3, Permit No. 86-001/DEHNR Permit No. 92-S | -----           | December 23, 2003 | n/a        |
| Wake County Permit to Operate, Permit No. 86-001/DEHNR #92-S                               | 011102 01045-47 | November 10, 2004 |            |
| NCDWM Permit to Operate. Permit 92-N   | -----           | June 3, 2010      | 17234      |

### PART II: LIST OF DOCUMENTS FOR THE APPROVED PLAN

1. Site Plan prepared by Little and Little, dated November 4, 1985.
2. Map entitled "Recombination Map Property Survey for Glenn Currin" recorded in Book of Maps 1986, Page 368 in the Wake County Registry.
3. Letter from Wake County Environmental Services, dated December 23, 8, 2003, approving modifications for Phase 1, 2, and 3 of the LCID Permit 92-S at 4547 Sunset Lake Road, White Oak Township, Wake County.
4. *Application to renew LCID Permit 92--N for next five years.* Prepared by: John A. K. Tucker, P.E, June 1, 2010. (Doc ID's 10775, 10850, and 10851)
5. Operational Manual, drawings, volume calculations, Revised March 6, 2012 – Doc ID 17228
6. Landfill Gas Monitoring Evaluation – September 4, 2012 – Doc ID 17227

**PART III: PROPERTIES APPROVED FOR THE SOLID WASTE FACILITY**

| Property                   | Book | Page    | Acreage      | Grantor    | Grantee               |
|----------------------------|------|---------|--------------|------------|-----------------------|
| Original Permit            | 3670 | 825     | 18.68        |            | Currin Brothers, Inc. |
| Additional properties      | 6000 | 178-180 | 62.93 + 2.03 | LANDVESTCO | CURRIN BROS., INC.    |
| <b>Total Site Acreage:</b> |      |         | <b>83.65</b> |            |                       |

Note: Deed book reference is from Wake County, NC Register of Deeds office.

**PART IV: GENERAL PERMIT CONDITIONS**

1. This permit is issued by the North Carolina Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section (Section). In accordance with North Carolina Solid Waste Management Rule 15A NCAC 13B .0201(e), a land clearing and inert debris solid waste management facility permit may be combined in two parts: a Permit to Construct and a Permit to Operate. The Permit to Construct shall expire on June 3, 2015. The Permit to Construct conditions are contained in Attachment 2 of this permit. The Permit to Operate shall expire on June 3, 2015. The Permit to Operate conditions are contained in Attachment 3 of this permit.
2. The persons to whom this permit is issued ("permittee") are the owners and operators of the solid waste management facility.
3. This permit shall not be effective unless the certified copy is filed in the Register of Deeds Office and indexed in the grantor index under the name of the owner of the land in the county or counties in which the land is located. The certified copy of the permit, affixed with the Register's seal and the date, book, and page number of recording must be returned to the Division of Waste Management, within 30 (thirty) calendar days. If the Section does not receive the certified copy of the recorded permit within 30 calendar days of issuance of the permit, then and in that event, the permit is suspended and of no effect until the date the Section receives the certified copy of the recorded permit.
4. When this property is sold, leased, conveyed, or transferred in any manner, the deed or other instrument of transfer must contain in the deed description section, in no smaller type than that used in the body of the deed or instrument, a statement that the property has been used as a land clearing and inert debris landfill and a reference by book and page to the recordation of the permit.

5. By beginning construction or receiving waste at this facility the permittee shall be considered to have accepted the terms and conditions of this permit.
6. Construction and operation of this solid waste management facility must be in accordance with the Solid Waste Management Rules, 15A NCAC 13B, Article 9 of Chapter 130A of the North Carolina General Statutes (NCGS 130A-290, et seq.), the conditions contained in this permit; and the approved plan. Should the approved plan and the rules conflict, the Solid Waste Management Rules shall take precedence unless specifically addressed by permit condition.
7. The permit is issued based on the documents submitted in support of the application for permitting the facility including those identified in Attachment 1, "List of Documents for Approved Plan," and which constitute the approved plan for the facility. Where discrepancies exist, the most recent submittals and the Conditions of Permit shall govern.
8. This permit may be transferred only with the approval of the Section, through the issuance of a new or substantially amended permit in accordance with applicable statutes and rules. In accordance with NCGS 130A-295.2(g), the permittee must notify the Section thirty (30) days prior to any significant change in the identity or business structure of either the owner or the operator, including but not limited to, a proposed transfer of ownership of the facility or a change in the parent company of the owner or operator of the facility.
9. The permittee is responsible for obtaining all permits and approvals necessary for the development of this project including approval from appropriate agencies for sedimentation and erosion control, and a General or Individual National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit, if applicable. Issuance of this permit does not remove the permittee's responsibilities for compliance with any other local, state or federal rule, regulation or statute.

- End of Section -

**ATTACHMENT 2  
 CONDITIONS OF PERMIT TO CONSTRUCT**

**PART I: FACILITY SPECIFIC CONDITIONS**

1. Pursuant to the NC Solid Waste Management Rules (Rule) 15A NCAC 13B .0201(c) and (e), this permit approves construction of vertical extension of Phases 1, 2, and 3 of the Currin Brothers Inc, LCID Landfill.
2. The landfill is permitted for a total gross capacity of 1,555,246 cubic yards. Gross capacity is the measured volume between the bottom of waste and the top of final cover. Development of the landfill is approved as summarized below:

|                    | Acreage | Capacity      | Status |
|--------------------|---------|---------------|--------|
|                    |         | (cubic yards) |        |
| Phases 1, 2, and 3 | 81.6    | 1,558,246     | Active |
| Total for site     | 81.6    | 1,558,246     |        |
| Mulch Volume       |         | 165,000       |        |
|                    |         |               |        |

\*According to Site Plans revised 12/28/2011 and calculations March 5, 2012, by John A.K. Tucker, P.E.

3. The following are required prior to receiving solid waste in vertical extension of Phases 1, 2, and 3:
  - a. Not Applicable.
  - b. A sign must be posted at the entrance as required by the NC Solid Waste Management Rules Operational Requirements, 15A NCAC 13B .0566(16).
  - c. The disposal unit boundary must be accurately identified with permanent markers.
  - d. A site inspection and pre-operative meeting must be conducted by a representative of the Section. The permittee must notify the Section’s Environmental Senior Specialist and make arrangements for the site inspection and pre-operative meeting.
  - e. After completion of the requirements in subparagraphs a. through d. above, the Section Environmental Senior Specialist shall notify the Permitting Branch Supervisor by letter or email that the pre-operative requirements have been met and that the unit(s) may commence receiving waste. The permittee will be copied on the notification and may begin receiving waste at that time.

**EROSION AND SEDIMENTATION CONTROL REQUIREMENTS**

4. All earth disturbing activities must be conducted in accordance with the Sedimentation Pollution Control Act of 1973 (15 NCAC 4) and consistent with any other local, state or federal requirements.
5. Facility construction, operations or practices must not cause or result in a discharge of pollution, dredged material, and/or fill material into waters of the state in violation of the requirements under Sections 401 and 404 of the Clean Water Act, as amended.
6. Modifications to the approved sedimentation and erosion control activities require approval by the North Carolina Land Quality Section. The permittee must notify the Section of any sedimentation and erosion control plan modifications.

*- End of Section -*

**ATTACHMENT 3**

**CONDITIONS OF PERMIT TO OPERATE**

**PART I: FACILITY SPECIFIC CONDITIONS**

1. This Permit to Operate expires June 3, 2015. Pursuant to 15A NCAC 13B .0201(g), no later than December 3, 2014, the owner or operator must submit a request to the Section for permit review and must submit updated facility plans meeting the requirements of Rule 0.565 and .0566.
2. This facility must conform to the operational requirements of the NC Solid Waste Management Rules, 15A NCAC 13B .0566, and to the operational plan required by 15A NCAC 13B .0565(4).
3. This Permit to Operate authorizes the continued operation of vertical extensions of Phases 1, 2, and 3, and, when the Permittee has complied with conditions in Attachment 2, operation of Phases 1, 2, and 3. The LCID landfill. Currin Brothers LCID landfill has a total of 1,558,246 cubic yards of gross capacity plus a mulch volume of 165,000 cubic yards in accordance with the approved plan referenced in Attachment 1, Part II, of this permit.
4. This facility is permitted to receive land clearing waste; yard trash; untreated and unpainted wood; uncontaminated soil; inert debris such as unpainted rock, brick, concrete; concrete block. Wooden pallets as defined in the NCGS Article 9, Chapter 130A-290(44a) are not permitted for disposal.
5. This facility is permitted to receive waste generated within Durham, Wake, Harnett, Orange, Granville, and Chatham Counties. Proposed changes to the service area must be submitted to the Section for review prior to any changes in accordance with Condition No. 9 of this Attachment. An annual report meeting the requirements of G.S. 130A-309.09D (b) shall be submitted by August 1st of each year for the previous July 1 through June 30.
6. The permanent markers that accurately delineate the waste disposal boundary must be maintained.
7. Excavation, grading and fill material side slopes must not exceed a ratio of three horizontal feet to one vertical feet (3:1).
8. Open burning of land clearing waste is prohibited. If a fire occurs, the permittee must provide oral notification to the Section within 24 hours of the occurrence followed by a written report of the details of the fire within 10 working days of the occurrence. The report must include the cause, the location(s) on the premises, the dimensions and volume

of material involved, a description of emergency response activities with results, and a description of mitigation measures implemented to reduce or eliminate conditions leading to the fire. Other conditions may be required based on the severity or nature of the fire.

9. Revisions to the design or operation of the facility or changes to the facility service area must be submitted to the Section for review and approval prior to the implementation of any changes. Revisions or changes that require modification to the permit will be subject to the appropriate permitting fee.
10. Amendments or revisions to the NC General Statutes or to the NC Solid Waste Management Rules or any violation of ground water standards may necessitate modification of the approved design or operation plans, waste acceptance requirements or may require closure of the facility.

#### **Cover Material Requirements**

11. Adequate soil cover shall be applied monthly, or when the active area reaches one acre in size, whichever occurs first or more often when necessary to prevent the site from becoming a nuisance or to mitigate conditions associated with fire, windblown materials, vectors or excessive water infiltration.
12. The facility must maintain a supply of cover material adequate to cover the working face in case of an emergency or fire, at all times.
13. Vegetative ground cover sufficient to control erosion must be established within 30 (thirty) working days upon completion of any phase of LCID landfill development or as addressed in the approved Sedimentation and Erosion Control permit.
14. Within 120 calendar days after completion of any phase of disposal operations, the disposal area must be closed and covered with a minimum of 1 foot of suitable soil cover sloped to allow surface water runoff in a controlled manner.

#### **Drainage Control and Water Protection Requirements**

15. All required sedimentation and erosion control measures must be installed and maintained to mitigate excessive on-site erosion and to prevent silt from leaving the site of the landfill unit during the service life of the facility.
16. Ground water quality at this facility is subject to the classification and remedial action provisions of 15 NCAC 2L.
17. Solid waste must be placed a minimum of four feet (4) above the seasonal high water table.

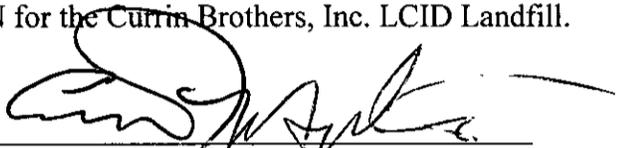
18. Solid waste must not be disposed in standing water. Surface water must be diverted from the operational area and must not be impounded over or in waste.
19. Leachate must be properly managed on site using best management practices.
20. Concentration of explosive gases generated by the facility shall not exceed specifications listed in 15A NCAC 13B .0566(13).

**LAND CLEARING/ YARD WASTE DEBRIS COLLECTION AREA CONDITIONS**

21. The facility is permitted to operate a treatment and processing operation as defined in 15A NCAC 13B, Rule .0101(49). The operation consists of a grinder for land clearing and yard waste debris.
22. The facility is permitted to receive land clearing debris and yard waste defined in 15A NCAC 13B Rules .0101(23) and .0101(56), respectively.
23. If wood material/mulch containing yard trash is provided to the public, the permittee must submit a plan for composting the yard trash in accordance with the requirements of 15A NCAC 13B .1400, et seq.

*- End of Permit Conditions -*

I do hereby certify that the attached PERMIT TO CONSTRUCT AND OPERATE is an exact and true original of PERMIT NUMBER 92-N for the Curran Brothers, Inc. LCID Landfill.



Edward F. Mussler, III, P.E.  
Permitting Branch Supervisor  
Solid Waste Section  
Division of Waste Management

North Carolina

WAKE County

I, Jane Comer, Notary Public for WAKE County,

North Carolina, do hereby certify that Edward F. Mussler, III, Supervisor of the Permitting Branch, Solid Waste Section, Division of Waste Management, NCDENR, personally appeared before me this day and acknowledge the due execution of the foregoing instrument.

Witness my hand and official seal,

This the 24<sup>th</sup> day of September, 20 12.

OFFICIAL SEAL



Jane Comer  
NOTARY PUBLIC

My commission expires 4-23, 20 17.

Note to Register of Deeds: This certified original permit shall be recorded by the Register of Deeds and indexed in the grantor index under the name of the land owner. The certified original affixed with the Register's seal and the date, book, and page number of recording shall be returned to the Permitting Branch Supervisor, Division of Waste Management, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.



BOOK:014966 PAGE:00031 - 00042

**Yellow probate sheet is a vital part of your recorded document.  
Please retain with original document and submit for rerecording.**



**Wake County Register of Deeds  
Laura M. Riddick  
Register of Deeds**

**This Customer Group**  
\_\_\_\_\_ # of Time Stamps Needed

**This Document**  
\_\_\_\_\_ New Time Stamp  
\_\_\_\_\_ # of Pages

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North Carolina Department of Environment and Natural Resources  
 Division of Water Resources  
 Water Quality Programs

Pat McCrory  
 Governor

Thomas A. Reeder  
 Director

John E. Skvarla, III  
 Secretary

September 27, 2013

Currin Brothers Inc.  
 1810 Coley Road  
 Durham, NC 27703

**Subject: Surface Water Determination Letter**  
 NBRRO#13-252  
 Wake County

|  |  |
|--|--|
| Determination Type   |  |
| Buffer Call  | Isolated or EIP Call   |
| <input checked="" type="checkbox"/> Neuse (15A NCAC 2B .0233)<br><input type="checkbox"/> Tar-Pamlico (15A NCAC 2B .0259)<br><input type="checkbox"/> Jordan (15A NCAC 2B .0267) | <input type="checkbox"/> Ephemeral/Intermittent/Perennial Determination<br><input type="checkbox"/> Isolated Wetland Determination |

Project Name: Currin Brothers Inc. Landfill-4525 Sunset Lake Road, Apex

Location/Directions: Subject property is a private developed lot at project address

Subject Stream: UT to Middle Creek, Middle Creek

**Determination Date: September 27, 2013**      **Staff: Sara Knies**

| Feature | E/I/P*      | Not Subject | Subject | Start@     | Stop@ | Soil Survey | USGS Topo |
|---------|-------------|-------------|---------|------------|-------|-------------|-----------|
| SA      | I           |             | X       | Throughout |       | X           |           |
| SB      | P           |             | X       | Throughout |       | X           | X         |
| SC      | P           |             | X       | Throughout |       | X           | X         |
| SD      | Not Present | X           |         |            |       | X           |           |
| SE      | P           |             | X       | Throughout |       | X           |           |
| SF      | E           | X           |         | Throughout |       | X           |           |

\*E/I/P = Ephemeral/Intermittent/Perennial

Explanation: The feature(s) listed above has or have been located on the Soil Survey of Wake County, North Carolina or the most recent copy of the USGS Topographic map at a 1:24,000 scale. Each feature that is checked "Not Subject" has been determined not to be a stream or is not present on the property. Features that are checked



"Subject" have been located on the property and possess characteristics that qualify it to be a stream. There may be other streams located on your property that do not show up on the maps referenced above but, still may be considered jurisdictional according to the US Army Corps of Engineers and/or to the Division of Water Resources (DWR).

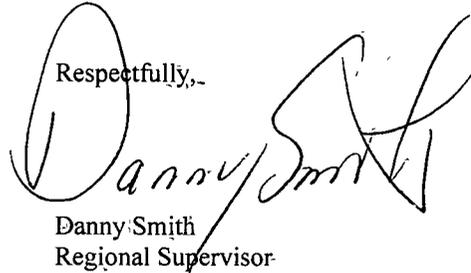
**This on-site determination shall expire five (5) years from the date of this letter. Landowners or affected parties that dispute a determination made by the DWR or Delegated Local Authority may request a determination by the Director. An appeal request must be made within sixty (60) days of date of this letter or from the date the affected party (including downstream and/or adjacent owners) is notified of this letter. A request for a determination by the Director shall be referred to the Director in writing c/o Karen Higgins, DWR WeBSCaPe Unit, 1650 Mail Service Center, Raleigh, NC 27699.**

**This determination is final and binding unless, as detailed above, you ask for a hearing or appeal within sixty (60) days.**

**The owner/future owners should notify the Division of Water Resources (including any other Local, State, and Federal Agencies) of this decision concerning any future correspondences regarding the subject property (stated above). This project may require a Section 404/401 Permit for the proposed activity. Any inquiries should be directed to the Division of Water Resources (Central Office) at (919)-807-6300, and the US Army Corp of Engineers (Raleigh Regulatory Field Office) at (919)-554-4884.**

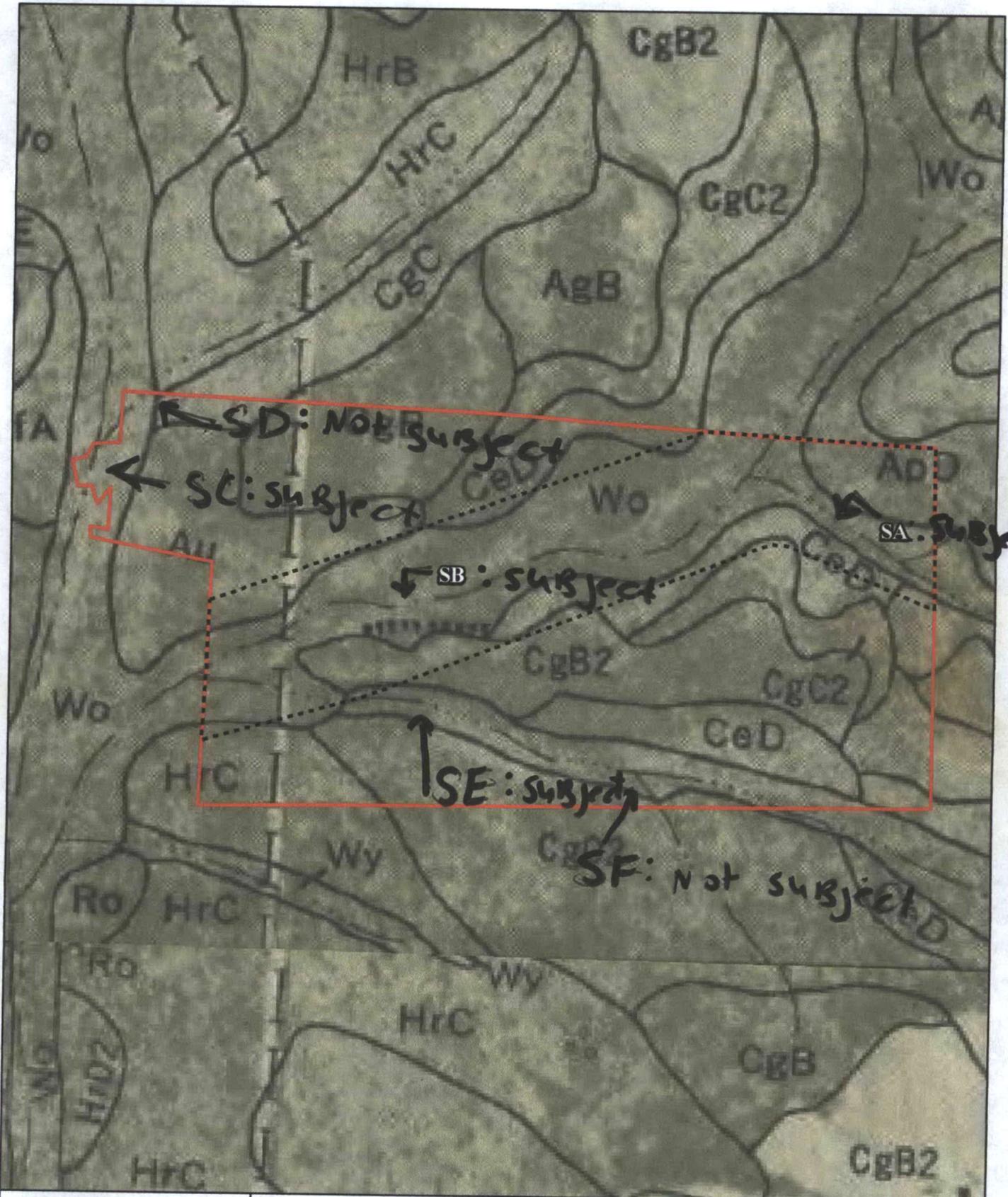
If you have questions regarding this determination, please feel free to contact Sara Knies at (919) 791-4200.

Respectfully,

A handwritten signature in black ink that reads "Danny Smith". The signature is written in a cursive style with a large, looped "D" at the beginning.

Danny Smith  
Regional Supervisor

cc: RRO/SWP File Copy



**CAROLINA ECOSYSTEMS, INC.**  
 3040 NC 42 West; Clayton NC, 27520  
 P:(919)-606-9145 F:(919)-585-5570

September 2013

N

Feet

0 400

Site Boundary

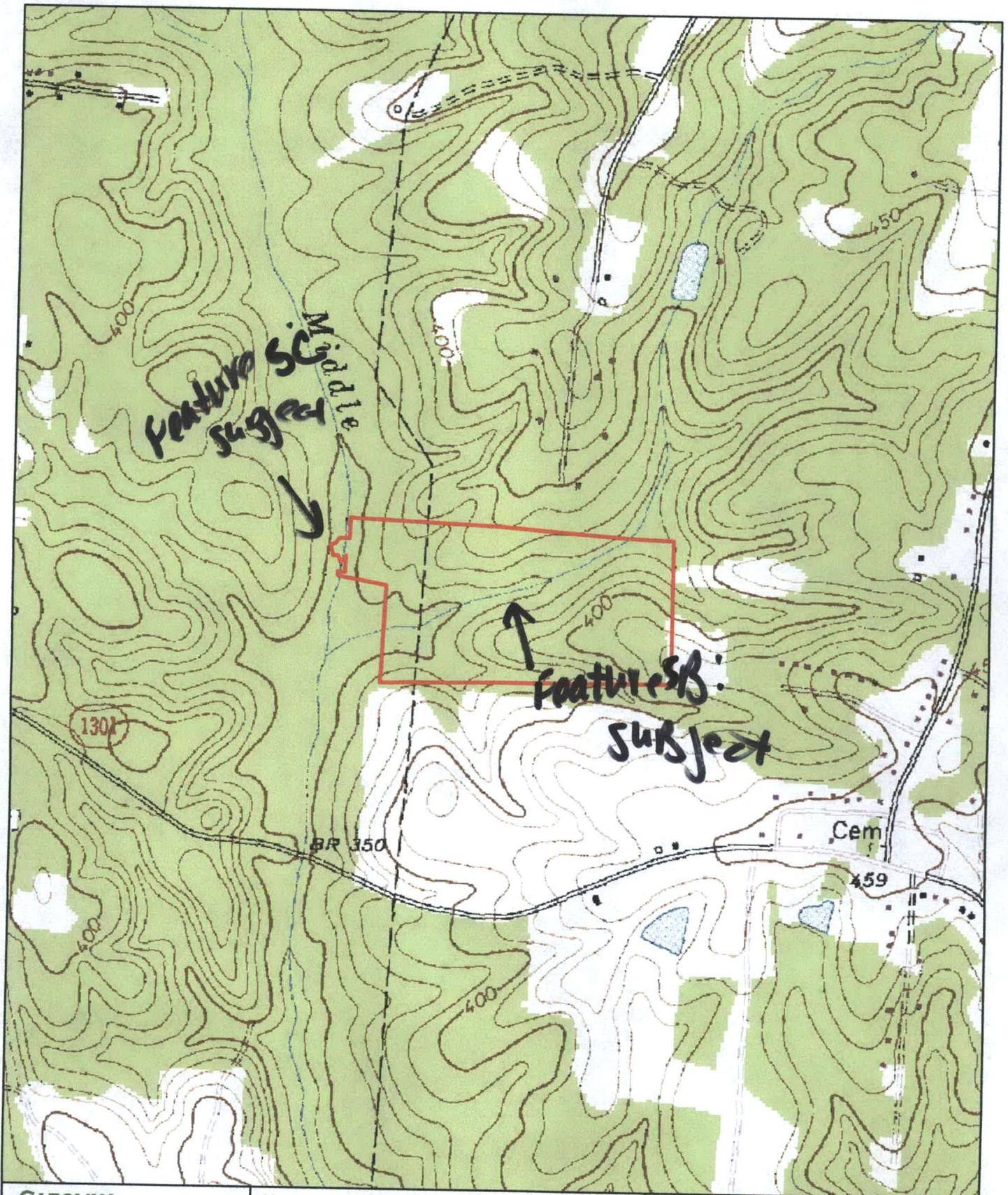
Study Area

**Figure 3: NRCS Soil Survey**

**Currin Brothers Landfill**  
**Smith Gardner Engineers Inc.**  
 Wake County, NC

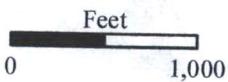
9.27.13 SK

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**CAROLINA ECOSYSTEMS, INC.**  
 3040 NC 42 West; Clayton NC, 27520  
 P:(919)-606-9145 F:(919)-585-5570

September 2013



 Site Boundary

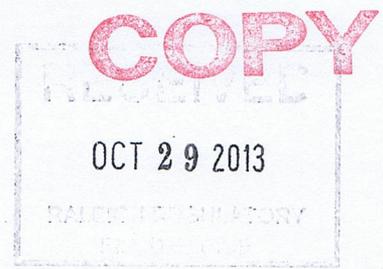
Data Source: Apex 1:24000 USGS Topographic Quadrangle Map

**Figure 2: USGS Topographic Map**

**Currin Brothers Landfill  
 Smith Gardner Engineers Inc.  
 Wake County, NC**

9.27.13 SVK

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**ATTACHMENT**

**PRELIMINARY JURISDICTIONAL DETERMINATION FORM**

**BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD):** *December 2, 2013*

**B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:**

Allen Currin  
1810 Coley Road  
Durham, NC 27703

**C. DISTRICT OFFICE, FILE NAME, AND NUMBER:** *Wilmington, Currin Landfill*  
*SAW-2013-02211*

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:**  
Currin Brothers Landfill: LCID Landfill and Recycling Center landfill expansion.  
**(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)**

State: NC County/parish/borough: Wake City: Apex  
Center coordinates of site (lat/long in degree decimal format): Lat. 35.6851° N, Long. -78.8190° E.

Universal Transverse Mercator:

Name of nearest waterbody: Middle Creek

Identify (estimate) amount of waters in the review area:

Non-wetland waters: 2683 linear feet: width (ft) and/or acres.

Cowardin Class: Riverine

Stream Flow: Perennial

Wetlands: 2.21 acres.

Cowardin Class: Forested

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal: None

Non-Tidal: None

**E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

Office (Desk) Determination. Date:

Field Determination. Date(s): *11/14/13*

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party

who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there "*may be*" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

**SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply**

- checked items should be included in case file and, where checked and requested, appropriately reference sources below):

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:

Data sheets prepared/submitted by or on behalf of the applicant/consultant.

Office concurs with data sheets/delineation report.

Office does not concur with data sheets/delineation report.

Data sheets prepared by the Corps:

Corps navigable waters' study:

U.S. Geological Survey Hydrologic Atlas:

USGS NHD data.

USGS 8 and 12 digit HUC maps.

U.S. Geological Survey map(s). Cite scale & quad name: 1:24000 Apex.

USDA Natural Resources Conservation Service Soil Survey.

Citation: Wake County: sheets 75 and 83 .

National wetlands inventory map(s). Cite name:

State/Local wetland inventory map(s):

FEMA/FIRM maps:

100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)

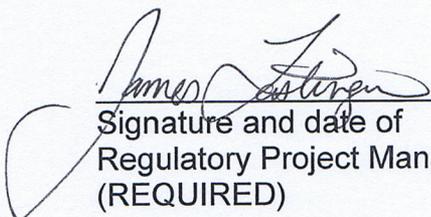
Photographs:  Aerial (Name & Date): NAIP (2012).

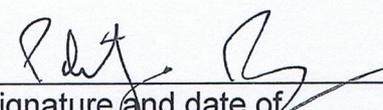
or  Other (Name & Date):

Previous determination(s). File no. and date of response letter:

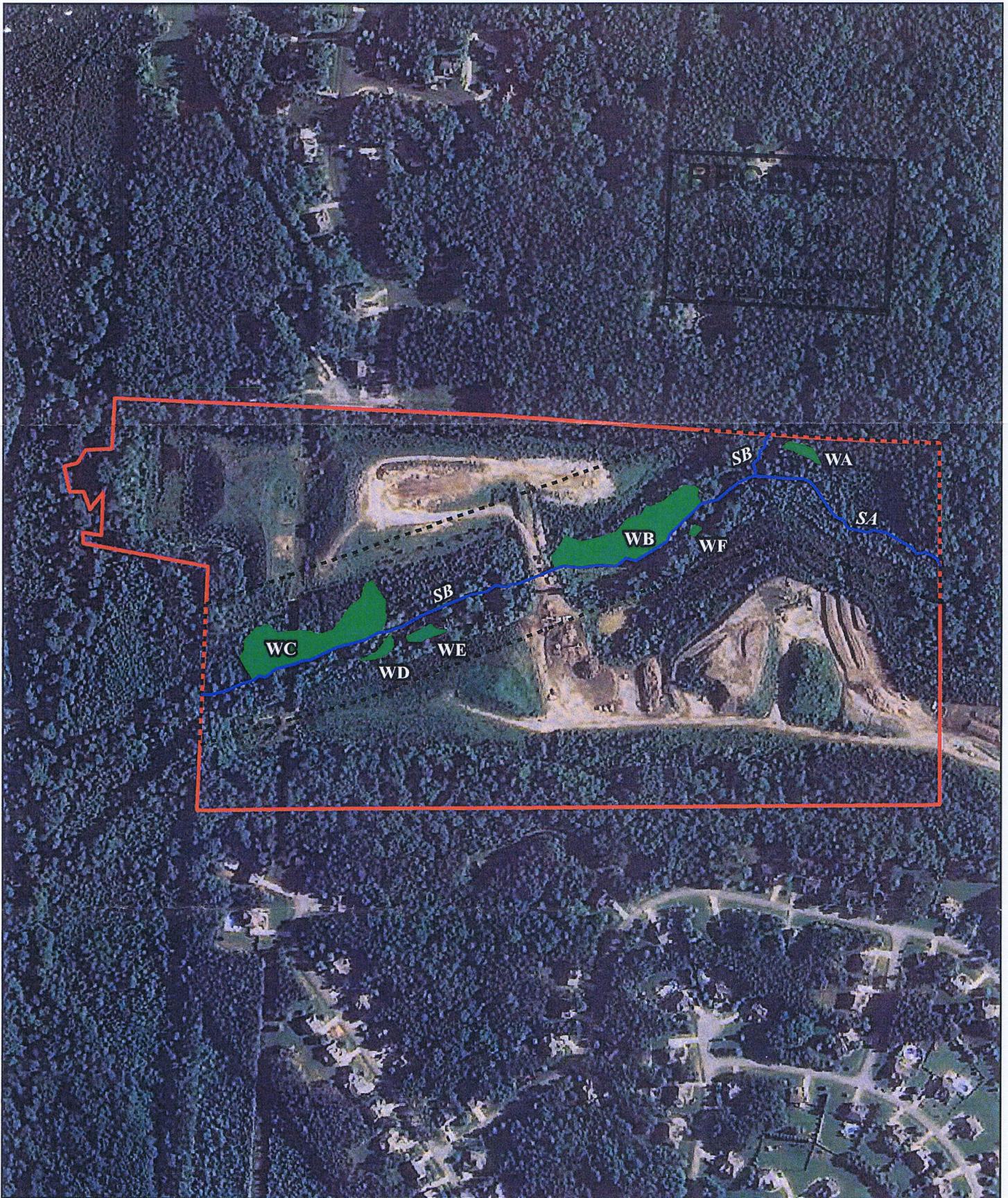
Other information (please specify):

**IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.**

 12/2/13  
Signature and date of  
Regulatory Project Manager  
(REQUIRED)

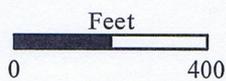
  
Signature and date of  
person requesting preliminary JD  
(REQUIRED, unless obtaining  
the signature is impracticable)

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**CAROLINA ECOSYSTEMS, INC.**  
 3040 NC 42 West; Clayton NC, 27520  
 P:(919)-606-9145 F:(919)-585-5570

September 2013



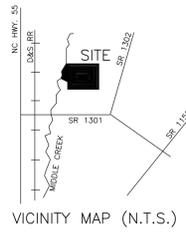
Date Source: NAIP 2012 Aerial Photography

-  Site Boundary
-  Study Area
-  Streams
-  Wetlands

**Figure 4: Jurisdictional Features**

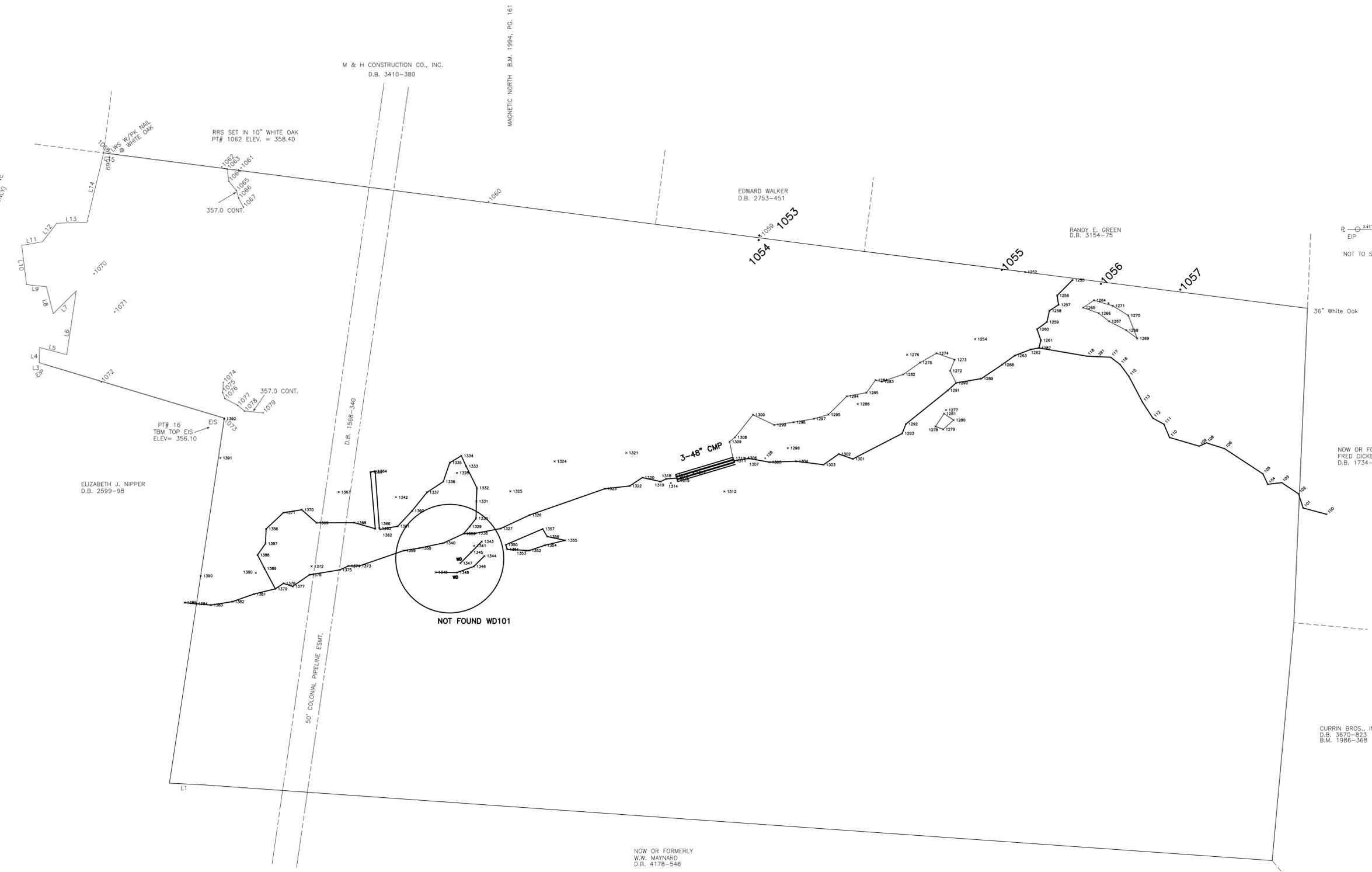
**Currin Brothers Landfill  
 Smith Gardner Engineers Inc.  
 Wake County, NC**

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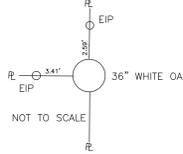


NOTE: NO POINTS INSTALLED ALONG CENTERLINE OF CREEK

C/1 MIDDLE CREEK IS PROPERTY LINE (LINE SHOWN IS REFERENCE LINE ONLY)



TOTAL AREA IN TRACT: 62.925 ACRES



NOT FOUND WD101

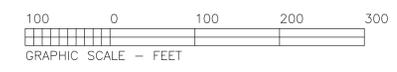
NOTE: THIS PLAT IS NOT FOR RECORDATION AND IS NOT TO BE USED TO TRANSFER ANY PROPERTY SHOWN HEREON.

WETLANDS AND/OR WATERS OF THE U.S.

SURVEY FOR:  
**CURRIN BROS., INC.**

HOLLY SPRINGS TOWNSHIP, WAKE COUNTY, NORTH CAROLINA  
SCALE: 1" = 100' AUGUST 29, 1994

**LEGEND**  
 ● Existing Iron Pipe (Control Point)  
 ○ Iron Pipe Set (Unless otherwise noted)  
 ■ Existing Concrete Mounment(Control Point)  
 □ Concrete Monument Set  
 All measurements shown are horizontal ground measurements unless otherwise noted.  
 Area computed by coordinates  
 Zone R-30 Pin# 0750.03-34-7534



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# LITTLE & LITTLE

LETTER OF TRANSMITTAL

DATE 7.18.95 JOB NUMBER WAKLF.01

TO Wayne Woodlief  
Wake County Solid Waste

RE: Currin Bros., Inc Wake Co.  
W.C.I.D. Landfill

WE ARE SENDING YOU  Attached  Under separate cover Via Azil  
 Shop drawings  Prints  Plans  Samples  Specifications  
 Copy of letter  Change order

| COPIES | DATE    | SHEET | DESCRIPTION                          |
|--------|---------|-------|--------------------------------------|
| 1      | 7.14.95 |       | Wetlands - Nationwide Permit # 14-26 |
|        |         |       |                                      |
|        |         |       |                                      |
|        |         |       |                                      |
|        |         |       |                                      |
|        |         |       |                                      |
|        |         |       |                                      |

THESE ARE TRANSMITTED as checked below:

- For approval
- For your use
- As requested
- For review and comment
- FOR BIDS DUE \_\_\_\_\_ 19 \_\_\_\_\_
- Approved as submitted
- Approved as noted
- Returned for corrections
- Resubmit \_\_\_\_\_ copies for approval
- Submit \_\_\_\_\_ copies for distribution
- Return \_\_\_\_\_ corrected prints
- PRINTS RETURNED AFTER LOAN TO US

REMARKS

COPY TO

If enclosures are not as noted, kindly notify us at once.

SIGNED:

Robb Harrison



REPLY TO  
ATTENTION OF.

DEPARTMENT OF THE ARMY  
WILMINGTON DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 1890  
WILMINGTON, NORTH CAROLINA 28402-1890

RECEIVED

JUL 17 1995



July 14, 1995

LITTLE & LITTLE

Regulatory Branch

Action ID. 199404122 and Nationwide Permit Numbers 14 (Road Crossing) and 26 (Headwaters and Isolated Waters)

Mr. Glenn R. Currin  
Currin Brothers, Inc.  
P.O. Box 547  
Fuquay-Varina, North Carolina 27526

Dear Mr. Currin:

Reference your application of May 2, 1995, submitted on your behalf by Little & Little, Inc., for Department of the Army authorization to discharge fill material within waters of the United States, causing the loss of a total of 0.79 acres of wetlands (0.33 for a road crossing and 0.51 other) adjacent to, and above the headwaters of, unnamed tributaries to Middle Creek, for construction of the proposed Wake County Land Clearing and Inert Debris landfill, north of SR 1301, northeast of Holly Springs, Wake County, North Carolina.

For the purposes of the Corps of Engineers' Regulatory Program, Title 33, Code of Federal Regulations (CFR), Part 330.6, published in the Federal Register on November 22, 1991, lists nationwide permits. Authorization was provided, pursuant to Section 404 of the Clean Water Act, for discharges of dredged or fill material into headwaters and isolated waters.

Authorization, pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act, was also provided for fills for roads crossing waters of the United States (including wetlands and other special aquatic sites) provided:

- a. The width of the fill is limited to the minimum necessary for the actual crossing;
- b. The fill placed in waters of the United States is limited to a filled area of no more than one-third acre. Furthermore, no more than a total of 200 linear feet of the fill for the roadway can occur in special aquatic sites, including wetlands;
- c. The crossing is culverted, bridged or otherwise designed to prevent the restriction of, and to withstand, expected highflows and the movement of aquatic organisms;
- d. The crossing, including all attendant features, both temporary and permanent, is part of a single and complete project for crossing of a water of the United States; and
- e. For fills in special aquatic sites, including wetlands, the permittee notifies the District Engineer in accordance with the "Notification" general condition.

Your work is authorized by these nationwide permits provided it is accomplished in strict accordance with your submitted plans, the enclosed conditions. These nationwide permits do not relieve you of the responsibility to obtain other required State or local approvals.

This verification will be valid until the nationwide permit is modified, reissued or revoked, which will occur prior to January 21, 1997. It is incumbent upon you to remain informed of changes to the nationwide permits,

which will be announced by public notice when they occur. If you commence, or are under contract to commence, this activity before the date the nationwide permit is modified or revoked, you will have twelve months from the date of the modification or revocation to complete the activity under the present terms and conditions of this nationwide permit.

Please note that this authorization is valid for the work described above only, and impacts of subsequent projects on this property would have to be considered cumulatively with these impacts, regardless of future subdivision or ownership of the property. Questions or comments may be addressed to Mr. Eric Alsmeyer of my Raleigh Field Office regulatory staff, at telephone (919) 876-8441, extension 23.

Sincerely,

G. Wayne Wright  
Chief, Regulatory Branch

Enclosure

Copy Furnished (with enclosure):

Mr. Robert G. Harrison  
Little & Little  
P.O. Box 1448  
Raleigh, North Carolina 27602

Copies Furnished (without enclosure):

Mr. Mike Coughlin  
Environmental Engineer  
Wake County Community  
Development Services  
Post Office Box 550  
Raleigh, North Carolina 27602

Town of Holly Springs  
Community Development  
Attn.: Dan Mizelle, Town Planner  
P.O. Box 3  
Holly Springs, North Carolina 27540

Mr. John Dorney  
Water Quality Section  
Division of Environmental Mgmt.  
North Carolina Department of  
Environment, Health and  
Natural Resources  
Post Office Box 29535  
Raleigh, NC 27626-0535

## GENERAL CONDITIONS

1. **Navigation.** No activity may cause more than a minimal adverse effect on navigation.
2. **Proper Maintenance.** Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.
3. **Erosion and Siltation Controls.** Appropriate erosion and siltation controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills must be permanently stabilized at the earliest practicable date.
4. **Aquatic Life Movements.** No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water.
5. **Equipment.** Heavy equipment working in wetlands must be placed on mats or other measures must be taken to minimize soil disturbance.
6. **Regional and Case-by-case Conditions.** The activity must comply with any regional conditions which may have been added by the Division Engineer and any case specific conditions added by the Corps.
7. **Wild and Scenic Rivers.** No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status. Information on Wild and Scenic Rivers may be obtained from the National Park Service and the U.S. Forest Service.
8. **Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.
9. **Water Quality Certification.** In certain states, an individual state water quality certification must be obtained or waived.
10. **Coastal Zone Management.** In certain states, an individual state coastal zone management consistency concurrence must be obtained or waived.
11. **Endangered Species.** No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. Non-Federal permittees shall notify the District Engineer if any listed species or critical habitat might be affected or is in the vicinity of the project and shall not begin work on the activity until notified by the District Engineer that the requirements of

the Endangered Species Act have been satisfied and that the activity is authorized. Information on the location of threatened and endangered species can be obtained from the U.S. Fish and Wildlife Service and National Marine Fisheries Service.

12. **Historic Properties.** No activity which may affect Historic Properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the District Engineer has complied with the provisions of 33 CFR 325, Appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)).

13. **Notification.**

a. Where required by the terms of the NWP, the prospective permittee must notify the District Engineer as early as possible and shall not begin the activity:

(1) until notified by the District Engineer that the activity may proceed under the NWP with any special conditions imposed by the District or Division Engineer; or

(2) if notified by the District or Division Engineer that an individual permit is required; or

(3) Unless 30 days have passed from the District Engineer's receipt of the notification and the prospective permittee has not received notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

b. The notification must be in writing and include the following information and any required fees:

(1) Name, address and telephone number of the prospective permittee;

(2) Location of the proposed project;

(3) Brief description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any

other NWP(s), regional general permit(s) or individual permit(s) used or intended to be used to authorize any part of the proposed project or related activity;

(4) Where required by the terms of the NWP, a delineation of affected special aquatic sites, including wetlands; and

(5) A statement that the prospective permittee has contacted;

(a) The USFWS/NMFS regarding the presence of any Federally listed (or proposed for listing) endangered or threatened species or critical habitat in the permit area that may be affected by the proposed project; and any available information provided by those agencies. (The prospective permittee may contact Corps District Offices for USFWS/NMFS agency contacts and list of critical habitat.)

(b) The SHPO regarding the presence of any historic properties in the permit area that may be affected by the proposed project; and the available information, if any provided by that agency.

14. Water Supply Intakes. No discharge of dredged or fill material may occur in the proximity of a public water supply intake except where the discharge is repair of the public water supply intake structures or adjacent bank stabilization.

15. Shellfish Production. No discharge of dredged or fill material may occur in areas of concentrated shellfish production, unless the discharge is directly related to a shellfish harvest activity authorized by nationwide permit.

16. Suitable Material. No discharge of dredged or fill material may consist of unsuitable material (e.g., trash, debris, car bodies, etc.) and material discharged must be free from toxic pollutants in toxic amounts.

17. Mitigation. Discharges of dredged or fill material into waters of the United States must be minimized or avoided to the maximum extent practicable at the project site (i.e., on-site), unless the District Engineer has approved a compensation mitigation plan for the specific regulated activity.

18. Spawning Areas. Discharges in spawning areas during spawning seasons must be avoided to the maximum extent practicable.

19. Obstructions of High Flows. To the maximum extent practicable, discharges must not permanently restrict or impede the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

20. **Adverse Impacts from Impoundments.** If the discharge creates an impoundment of water, adverse impacts on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow shall be minimized to the maximum extent practicable.
21. **Waterfowl Breeding Areas.** Discharges into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.
22. **Removal of Temporary Fills.** Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

## INFORMATION

- a. All crossings must be from high ground to high ground.
- b. Bridging will be required in areas designated as anadromous fish spawning areas by the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC) if the District Engineer (DE) determines that use of culverts would likely preclude the continued use of the upstream waters as spawning areas for the anadromous fish.

## NATIONWIDE CONDITIONS

- a. The width of the fill is limited to the minimum necessary for the actual crossing.
- b. The fill placed in waters of the U.S. is limited to a filled area of no more than 1/3 acre.
- c. No more than a total of 200 linear feet of the fill for the roadway can occur in special aquatic sites, including wetlands.
- d. Crossing is culverted, bridged or otherwise designed to prevent the restriction of, and to withstand, expected high flows and tidal flows and the movement of aquatic organisms.
- e. The crossing, including all attendant features, both temporary and permanent, is part of a single and complete project for crossing of a water of the U.S.
- f. Fills in special aquatic sites, including wetlands, require a 30-day notification to the District Engineer (DE). The notification must include a delineation of affected special aquatic sites, including wetlands.
- g. Where local circumstances indicate the need, the District Engineer (DE) will define the term "expected high flows" for the purpose of establishing applicability of this nationwide permit.

## STATE CONSISTENCY CONDITIONS

- a. If the proposed activity is within the North Carolina Coastal Area, the applicant must receive written concurrence from the North Carolina Division of Coastal Management (NCDCM) that the activity is consistent with the North Carolina Coastal Management Program.
- b. All fill material authorized by this permit must be obtained from an upland source.
- c. Under this permit, bridging is required in areas designated as anadromous fish spawning areas by the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC) in order to allow

the continued use of upstream waters for spawning. Use of culverts in these situations is not authorized under this permit.

d. Should all or part of a proposed activity be located within an Area of Environmental Concern (AEC) as designated by the North Carolina Coastal Resources Commission (NCDCM), a Coastal Area Management Act (CAMA) permit is required from the North Carolina Division of Coastal Management (NCDCM). Should an activity within or potentially affecting an AEC be proposed by a Federal agency, a consistency determination pursuant to 15 CFR 930 must be provided to the NCDCM at least 90 days before the onset of the proposed activity.

#### -GENERAL CERTIFICATION CONDITIONS

a. Proposed fill or substantial modification under this General Certification requires written concurrence from the North Carolina Division of Environmental Management (NCDEM).

b. If written concurrence is not issued by the North Carolina Division of Environmental Management (NCDEM) within 45 days from receipt of a complete application by the Division's Section 401 Certification Office in Raleigh, then Section 401 Certification is waived for this Nationwide Permit unless additional information is requested in writing by the Director.

c. The width of the fill is limited to the minimum needed for the actual crossing.

d. The roadway width shall be minimized as much as practicable and that no practicable alternative exists.

e. Established sediment and erosion control practices will be utilized to prevent violations of the appropriate turbidity water quality standard (50 NTU's in streams and rivers not designated as trout waters by the North Carolina Division of Environmental Management (NCDEM), 25 NTU's in all saltwater classes and all lakes and reservoirs and 10 NTU's in trout waters).

f. Measures shall be taken to prevent live or fresh concrete from coming into contact with waters of the State until the concrete has hardened.

g. Additional site-specific conditions may be added to this Certification in order to ensure compliance with all applicable water quality and effluent standards.

h. Concurrence from the North Carolina Division of Environmental Management (NCDEM) that this Certification applies to an individual project shall expire three years from the date of the cover letter from the NCDEM.

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BK5087PG0664

Return to: C. D. Parker, NCDOT, 331 W. Main St., Suite 100, Durham, NC 27701

PRESENTED  
RIGHT OF WAY AGREEMENT  
REGISTRATION

STATE OF NORTH CAROLINA  
COUNTY OF WAKE  
TOWNSHIP WHITE OAK & HOLLY SPRINGS

92 JAN 29 PM 12:26

PARCEL NO. 6  
PROJECT 6.402152  
SECONDARY ROAD 1301-SUNSET LAKE RD.

CURRIN BROTHERS, INC., A NORTH CAROLINA CORPORATION  
the undersigned owners of that certain property described in Deed Book 3670 at page 821 in the Register of Deeds office of Wake County, recognizing the benefits to said property by reason of the construction of the proposed highway development, and in consideration of the construction of said project, hereby grants to the Department of Transportation the right of way as herein described and releases the Department from all claims for damages by reason of said right of way across the lands of the undersigned, and of the past and future use thereof by the Department, its successors and assigns, for all purposes for which the Department is authorized by law to subject such right of way; said right of way being the width indicated and across said property as follows:

60 ft. in width measured 30 ft. on each side of the center line of the road, said center line to be located by the Department and the construction or improvement of said road shall constitute the selection of said center line; and such additional widths as might be necessary to provide for cut and fill slopes, sedimentation control, and drainage of road.

It is understood and agreed that the 60 ft. right of way hereinabove referred to has been staked upon the ground and the center line of the road is located in the center of the right of way stakes. It is further agreed that the property owners will erect no fencing or engage in cultivation upon the right of way described herein.

It is further understood and agreed that should circumstances, conditions, or actions by the North Carolina Department of Transportation delay or delete the proposed improvement of said road, that the right of way granted herein shall remain until such time as released by the North Carolina Department of Transportation.

There are no conditions to this agreement not expressed herein. The undersigned hereby covenant and warrant that they are the sole owners of said property; that they solely have the right to grant this right of way, and that they will forever warrant and defend the title to the same against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, we have hereunto set our hands and affixed our seals this the 3rd day of January, 1992.

CURRIN BROTHERS, INC., A NORTH CAROLINA CORPORATION

BY: [Signature] (SEAL)  
Glenn R. Currin President

ATTEST: [Signature] (SEAL)  
C. Allen Currin Secretary

DRAWN BY: [Signature]

CHECKED BY: [Signature]

NORTH CAROLINA, Lee COUNTY

I, Mary M. Gibson, a Notary Public of the County and State aforesaid, do hereby certify that C. Allen Currin personally came before me this day and acknowledged that he is Secretary of Currin Brothers, Inc., a Corporation, and that, by authority duly given and as the act of the Corporation, the foregoing instrument was signed in its name by its President, sealed with its corporate seal, and attested by himself as its Secretary.

Witness my hand and official stamp or seal, this the 3rd day of January, 1992.

My Commission Expires: 4-1-96

[Signature]  
Notary Public

(For Improvement of Secondary Road)

NORTH CAROLINA — WAKE COUNTY

The foregoing certificate of Mary M. Gibson

Notary Public is

(are) certified to be correct. This instrument and this certificate are duly registered at the date and time and in the book and page shown on the first page hereof.

KENNETH C. WILKINS, Register of Deeds

By [Signature]  
Asst./Deputy Register of Deeds

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**Attachment B**

**Legal Description of Property**

**Permit Renewal Application  
Sunset Lake LCID Landfill & Recycling Facility  
Holly Springs, North Carolina**

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BK6000PG0178

WAKE COUNTY

FEB 9, 94

PRESENTED FOR REGISTRATION

UNPAID DEEDS ACCOUNT

420.00 TRSN 21

000332

94 FEB -9 PM 1:17



Real Estate Excise Tax

KENNETH C. WILLIAMS REGISTER OF DEEDS WAKE COUNTY

Excise Tax

420.00

Recording Time, Book and Page

Tax Lot No. Tract 1 - 0069355 Parcel Identifier No. Tract 2 - 0182699
Verified by County on the day of 19
by

Mail after recording to Ashmead P. Pipkin, Esq., 100 E. Six Forks Road, Suite 308, Raleigh, North Carolina 27609

This instrument was prepared by Charles L. Fulton of Manning, Fulton & Skinner, P.A.

Brief description for the Index 62.925 ac & 2.034 ac B/M 1994/161

NORTH CAROLINA GENERAL WARRANTY DEED

THIS DEED made this 2nd day of February, 1994, by and between

GRANTOR

GRANTEE

LANDVESTCO, a North Carolina partnership by Thomas K. Munce, Jr., its Managing General Partner

CURRIN BROS., INC., a North Carolina corporation P. O. Box 547 Fuquay-Varina, N. C. 27526

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.g. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of Middle Creek Township, Wake County, North Carolina and more particularly described as follows: on

Exhibit A attached hereto and incorporated herein by this reference thereto.

This deed is made and executed pursuant to authority duly granted to Thomas K. Munce, Jr., managing general partner of Landvestco, as contained in an Amended Assumed Name Certificate, dated April 15, 1992, and recorded in Book 5964, page 0690, Wake County Registry, which is incorporated herein by reference.

The property hereinabove described was acquired by Grantor by instrument recorded in .....  
Book 3578, page 506 and Book 4757, page 179, Wake Registry

A map showing the above described property is recorded in Plat Book 1994 ..... page 161

TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated. Title to the property hereinabove described is subject to the following exceptions:

1994 taxes, easement to Colonial Pipeline Company in Book 1568, page 340, Wake Registry, to rights reserved by Woodrow W. Maynard in Book 4757, page 179, Wake Registry, any other easements of record and any matters affecting title shown on the plat of survey recorded in Book of Maps 1994, page 161, Wake County Registry.

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, the day and year first above written.

.....  
(Corporate Name)  
By: .....  
.....  
President  
ATTEST:  
.....  
Secretary (Corporate Seal)

USE BLACK INK ONLY

LANDVESTCO, a North Carolina partnership (SEAL)  
By: *Thomas K. Munce, Jr.* (SEAL)  
Thomas K. Munce, Jr.  
Managing General Partner  
..... (SEAL)  
..... (SEAL)

STATE OF VIRGINIA - COUNTY OF HENRICO

I, a Notary Public of said County and State aforesaid, certify that Thomas K. Munce, Jr., personally appeared before me and acknowledged that he is the managing partner of Landvestco, a North Carolina general partnership, and that he has executed the foregoing instrument by authority duly given and as an act of and on behalf of Landvestco.



Witness my hand and official stamp or seal, this 3 day of February, 1994.

*Tracy S. Ottinger*  
Notary Public

My commission expires: 7-31-95  
*I was commissioned as Tracy S. Ottinger*

Use 2 President, sealed with its corporate seal and attested by ..... as its Secretary.

Witness my hand and official stamp or seal, this ..... day of ..... 19.....

My commission expires: ..... Notary Public

The foregoing Certificate(s) of *Tracy S. Ottinger*

is/are certified to be correct. This instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the first page hereof.

KENNETH C. WILKINS REGISTER OF DEEDS FOR WAKE COUNTY  
By *Meta M. Harris* Deputy/Assistant - Register of Deeds

EXHIBIT A TO DEED FROM LANDVESTCO  
TO CURRIN BROS., INC.  
DATED FEBRUARY 2, 1994

**TRACT 1:**

Being all of that same parcel of land conveyed by a deed dated October 11, 1985, from William Thomas Tarrant IV, et ux, to Landvestco, a North Carolina General Partnership, recorded in Book 3578, page 506, Wake County Registry, and being more particularly described as Tract 1, containing 62.925 acres, more or less, as shown on a map dated December 23, 1993 and captioned "Survey for Currin Brothers, Inc., Middle Creek Township, Wake County, North Carolina" by Maudlin-Watkins Surveying, P.A., recorded in Book of Maps 1994, page 161, Wake County Registry.

Together with all rights granted by a certain deed of easement for an access way, dated June 5, 1961, and recorded in Book 1459, page 280, Wake County Registry.

Subject to right-of-way easement for a transmission pipeline from Sidney M. Hatcher, et ux, to Colonial Pipeline Company, recorded in Book 1568, page 340, Wake County Registry, and as shown on the above-referenced map.

**TRACT 2:**

Being all of that same parcel of land conveyed by a deed dated August 10, 1990, from Woodrow W. Maynard, et ux, to Landvestco, a North Carolina General Partnership, recorded in Book 4757, page 0179, Wake County Registry, and being a 2.034 acre parcel, more or less, as shown on a map recorded in Book of Maps 1990, page 885, and as shown on Tract 2 on the map recorded in Book of Maps 1994, page 161, Wake County Registry, as referred to in the description of Tract 1 above.

Subject to a perpetual right of ingress, egress and regress retained by Woodrow W. Maynard, et ux, in the deed referred to above.

Subject to the easement dated January 28, 1993, of Southern Bell as recorded in Book 5488, page 0164, Wake County Registry and as shown on the Map of Tract 2 referred to above.

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BOOK 3670 PAGE 823

PRESENTED FOR REGISTRATION

MAR 4 3 28 PM '86

KENNETH C. WILKINS  
REGISTER OF DEEDS  
WAKE COUNTY, NC

Excise Tax 36.00

Recording Time, Book and Page

Tax Lot No. .... Parcel Identifier No. 0100136  
Verified by ..... County on the ..... day of ....., 19 ....  
by .....

Mail after recording to SEAY, ROUSE, HARVEY & TITCHENER  
P. O. Box 18807, Raleigh, NC 27619

This instrument was prepared by SEAY, ROUSE, HARVEY & TITCHENER

Brief description for the Index Ceolus Raines, Estate, Tract D

## NORTH CAROLINA GENERAL WARRANTY DEED

THIS DEED made this 3rd day of March, 19 86, by and between

GRANTOR

ROSS L. GORDON and wife,  
MARGARET R. GORDON

GRANTEE

CURRIN BROS., INC.

P. O. Box 547  
Fuquay-Varina, NC 27526

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.g. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of .....  
Wake County, North Carolina and more particularly described as follows:

BEGINNING at a stake, it being the southeast corner for William Thomas Tarrant, and runs thence with his east line north 3° 35' 48" east 480.45 feet to a stake, the southwest corner for Fred Lee Dickens; thence with said Dickens' south line north 89° 45' 51" east 812.00 feet to a new corner for the Hollemans; thence with a new line for said Hollemans south 00° 14' 09" east 1239.01 feet to a stake in the north line for Mary Turner; thence with her line north 84° 42' 26" west 198.38 feet to a stake, the northeast corner for Mildred C. Cash; thence with her line north 41° 23' 58" west 982.45 feet to the BEGINNING, containing 18 acres and being all of Tract D according to survey and plat of "Property of Ceolus Raines Estate" by Smith and Smith, Surveyors dated July 13, 1977 and revised August 10, 1977, same being recorded at the Wake County Registry in Book of Maps 1977, Page V-600 and being the westerly portion of the lands conveyed to S. W. Holleman and Carl P. Holleman by deed of Ceolus Raines, Jr. See also Book of Maps 1986, Page 368, Wake County Registry.

This land is conveyed subject, however, to a certain 20-foot cartway easement as established on the ground and as shown on the map just referred to same having been granted by instrument recorded in Book 1459, Page 280, Wake County Registry.

This land is conveyed together with the perpetual right of ingress and egress over and upon a 60-foot roadway extending from the easterly boundary of the lands just described along the existing roadway to N.C. S.R. #1302 as laid out and described on said map by Smith and Smith Surveyors duly drawn and recorded as above set out.

BOOK 3670 PAGE 824

The property hereinabove described was acquired by Grantor by instrument recorded in Book 2741 at Page 452 of the Wake County Registry.

A map showing the above described property is recorded in Plat Book 1977 600 1986 page 368

TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated. Title to the property hereinabove described is subject to the following exceptions:

Subject to 1986 ad valorem taxes.

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, the day and year first above written.

-----  
(Corporate Name)

By: -----

-----  
President

ATTEST: -----

-----  
Secretary (Corporate Seal)

USE BLACK INK ONLY

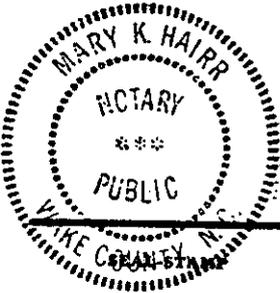
*Ross L. Gordon*  
ROSS L. GORDON (SEAL)

*Margaret R. Gordon*  
MARGARET R. GORDON (SEAL)

----- (SEAL)

----- (SEAL)

SEAL-STAMP



NORTH CAROLINA, Wake County.

I, a Notary Public of the County and State aforesaid, certify that ROSS L. GORDON and wife, MARGARET R. GORDON Grantor,

personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this 4th day of March, 1986

My commission expires: 2/14/89 *Mary K. Hair* Notary Public

NORTH CAROLINA, ----- County.

I, a Notary Public of the County and State aforesaid, certify that ----- he is ----- Secretary of

personally came before me this day and acknowledged that ----- a North Carolina corporation, and that by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name by its ----- President, sealed with its corporate seal and attested by ----- as its ----- Secretary.

Witness my hand and official stamp or seal, this ----- day of -----, 19-----  
My commission expires: ----- Notary Public

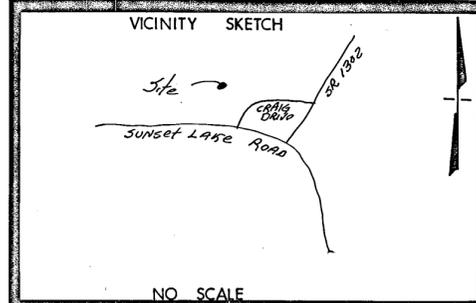
The foregoing Certificate(s) of *Mary K. Hair*

is/are certified to be correct. This instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the first page hereof.

KENNETH C. WILKINS REGISTER OF DEEDS FOR Wake COUNTY

By *P. Anne Redd* Deputy/Assistant - Register of Deeds

B3-A-23



LOCAL GOVERNMENT APPROVAL TO RECORD:

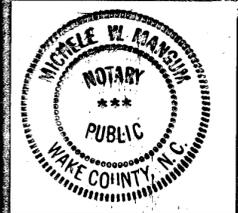
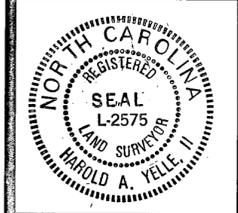
Wake County Certification  
This plat approved for recording; Exempt from Wake County Subdivision Regulations.

Date 2-28-86 Ann Patric  
Subdivision Technician

STATE OF NORTH CAROLINA  
COUNTY OF Wake

The undersigned certificate of Michele W. Mangum  
Notary Public, is certified to be correct. This plat was presented for registration and recorded in this office the 28th day of February, 1986, at 1:45 o'clock P.M.

P. Anne Redd  
(DEPUTY) REGISTER OF DEEDS



I, HAROLD A. YELLE II, RLS L-2575  
certify that this map was drawn from an actual field survey performed under my direction and supervision. The error of closure, as calculated by latitudes and departures is one part in 22,200. The misclosure is distributed by the Crandall method, and the area, if shown, is calculated by electronic computer using DPD methods. This map is prepared in accordance with G.S. 47-30, as amended.

Witness my hand and official seal this the 27th day of September, A.D. 1985.

Harold A Yelle II  
REGISTERED LAND SURVEYOR L-2575

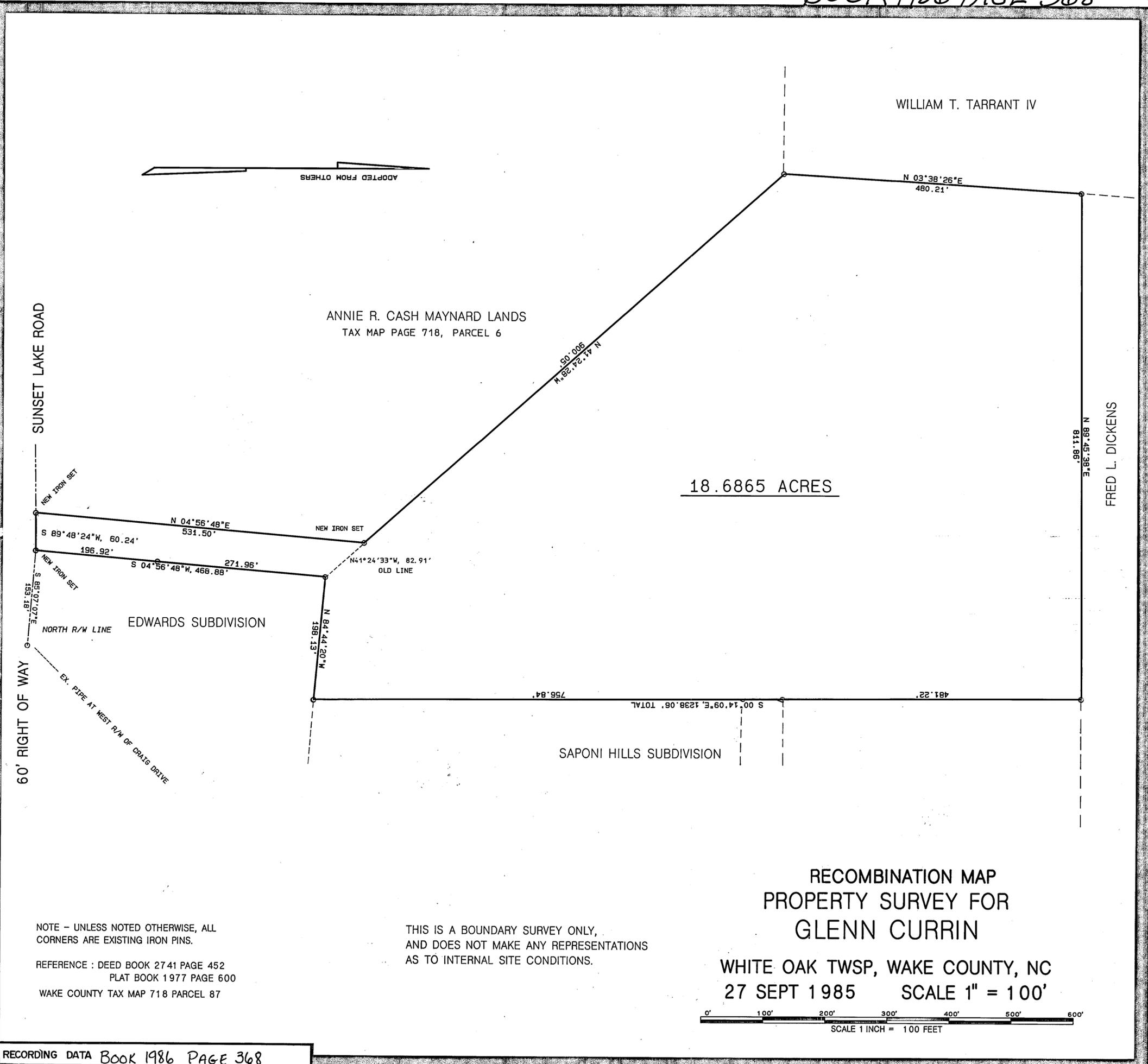
NORTH CAROLINA  
WAKE COUNTY  
I, MICHELE W. MANGUM, Notary Public of Wake County, N.C. do hereby certify that HAROLD A. YELLE II personally appeared before me this day and acknowledged the due execution of the foregoing certificate.

Witness my hand and official seal this the 27th day of September, A.D. 1985.

Michele W. Mangum  
NOTARY PUBLIC  
My commission expires 9/2 1987.

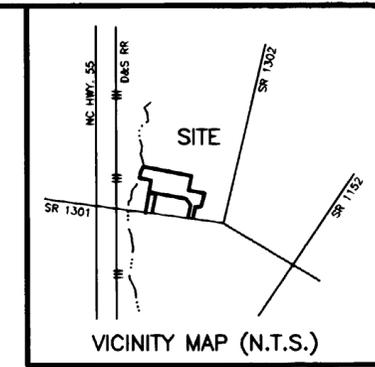
**MVA** Murphy Yelle Associates  
Registered Land Surveyors

6308 J. Richard Drive  
Leesville Industrial Park  
Raleigh, N.C. 27612  
919-787-7873

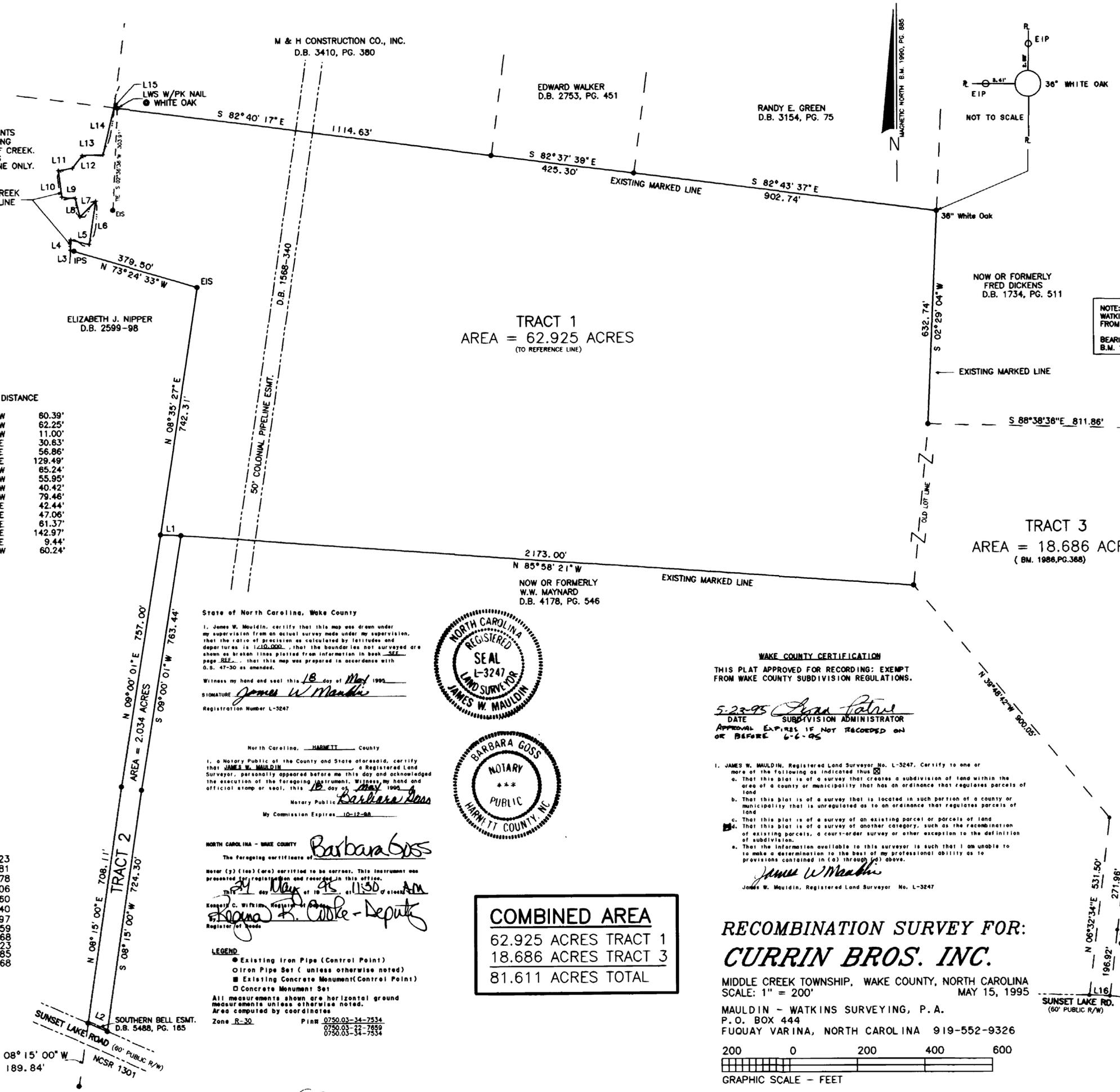


RECORDING DATA BOOK 1986 PAGE 368

SOUTHERN PHOTO - GREENSBORO N31229



NOTE: NO POINTS INSTALLED ALONG CENTERLINE OF CREEK. LINE SHOWN IS REFERENCE LINE ONLY.



| COURSE | BEARING       | DISTANCE |
|--------|---------------|----------|
| L1     | N 87°29'43\"W | 60.39'   |
| L2     | N 66°17'57\"W | 62.25'   |
| L3     | N 73°24'33\"W | 11.00'   |
| L4     | N 01°39'57\"E | 30.63'   |
| L5     | S 75°22'19\"E | 56.86'   |
| L6     | N 08°31'07\"E | 129.49'  |
| L7     | S 45°30'49\"W | 65.24'   |
| L8     | N 14°14'38\"W | 55.95'   |
| L9     | N 83°59'09\"W | 40.42'   |
| L10    | N 07°02'54\"W | 79.46'   |
| L11    | N 80°12'33\"E | 42.44'   |
| L12    | N 37°51'35\"E | 47.06'   |
| L13    | N 87°44'19\"E | 61.37'   |
| L14    | N 13°34'40\"E | 142.97'  |
| L15    | S 82°40'17\"E | 9.44'    |
| L16    | N 88°35'50\"W | 60.24'   |

- REFERENCES:
- D.B. 3670, PG. 823
  - D.B. 1459, PG. 281
  - D.B. 4757, PG. 178
  - D.B. 3578, PG. 506
  - D.B. 2054, PG. 260
  - D.B. 1568, PG. 340
  - D.B. 1486, PG. 597
  - B.M. 1978, PG. 159
  - B.M. 1986, PG. 368
  - B.M. 1978, PG. 723
  - B.M. 1990, PG. 685
  - B.M. 1986, PG. 368

State of North Carolina, Wake County  
 I, James W. Mauldin, certify that this map was drawn under my supervision from an actual survey made under my supervision, that the ratio of precision as calculated by latitudes and departures is 1:250,000, that the boundaries not surveyed are shown as broken lines plotted from information in book... page... that this map was prepared in accordance with G.S. 47-30 as amended.  
 Witness my hand and seal this 18 day of May 1995  
 SIGNATURE: *James W. Mauldin*  
 Registration Number L-3247



North Carolina, HARRITT County  
 I, a Notary Public of the County and State aforesaid, certify that JAMES W. MAULDIN a Registered Land Surveyor, personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this 18 day of May 1995.  
 Notary Public: *Barbara Goss*  
 My Commission Expires 10-12-98



NORTH CAROLINA - WAKE COUNTY  
 The foregoing certificate of *Barbara Goss*  
 Water (s) (ice) (are) certified to be correct. This instrument was presented for registration and recorded in this office.  
 This day of May 1995 at 11:50 AM  
*James W. Mauldin*  
 Register of Deeds

LEGEND  
 ● Existing Iron Pipe (Control Point)  
 ○ Iron Pipe Set ( unless otherwise noted)  
 ■ Existing Concrete Monument (Control Point)  
 □ Concrete Monument Set  
 All measurements shown are horizontal ground measurements unless otherwise noted.  
 Area computed by coordinates  
 Zone R-30 P.I.N. 0750.03-34-7534  
 0750.03-32-7559  
 0750.03-31-7534

COMBINED AREA  
 62.925 ACRES TRACT 1  
 18.686 ACRES TRACT 3  
 81.611 ACRES TOTAL

WAKE COUNTY CERTIFICATION  
 THIS PLAT APPROVED FOR RECORDING; EXEMPT FROM WAKE COUNTY SUBDIVISION REGULATIONS.

5-22-95 *Ann Fature*  
 DATE SUBDIVISION ADMINISTRATOR  
 APPROVAL EXPIRES IF NOT RECORDED ON OR BEFORE 6-6-95

I, JAMES W. MAULDIN, Registered Land Surveyor No. L-3247, Certify to one or more of the following as indicated thus    
 a. That this plat is of a survey that creates a subdivision of land within the area of a county or municipality that has an ordinance that regulates parcels of land  
 b. That this plat is of a survey that is located in such portion of a county or municipality that is unregulated as to an ordinance that regulates parcels of land  
 c. That this plat is of a survey of an existing parcel or parcels of land  
 d. That this plat is of a survey of another category, such as the recombination of existing parcels, a court-order survey or other exception to the definition of subdivision.  
 e. That the information available to this surveyor is such that I am unable to make a determination to the best of my professional ability as to provisions contained in (a) through (d) above.  
*James W. Mauldin*  
 James W. Mauldin, Registered Land Surveyor No. L-3247

RECOMBINATION SURVEY FOR:  
**CURRIN BROS. INC.**  
 MIDDLE CREEK TOWNSHIP, WAKE COUNTY, NORTH CAROLINA  
 SCALE: 1" = 200' MAY 15, 1995  
 MAULDIN - WATKINS SURVEYING, P.A.  
 P.O. BOX 444  
 FUQUAY VARINA, NORTH CAROLINA 919-552-9326  
 200 0 200 400 600  
 GRAPHIC SCALE - FEET

**Attachment C**

**Zoning Districts**

**Permit Renewal Application  
Sunset Lake LCID Landfill & Recycling Facility  
Holly Springs, North Carolina**

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WAKE COUNTY, NC 604  
LAURA M RIDDICK  
REGISTER OF DEEDS  
PRESENTED & RECORDED ON  
03/25/2003 AT 14:40:36

BOOK:009994 PAGE:01087 - 01088

*Hold Poyner & Spruill*

STATE OF NORTH CAROLINA

NOTICE OF SPECIAL USE APPROVAL

COUNTY OF WAKE

PETITION NO BA: SU-1968-03

Property recorded in Deed Book , Page ,  
Wake County Register of Deeds.

NAME OF PROPERTY OWNER (s): Currin Brothers, Inc.

KNOW ALL PERSONS BY THESE PRESENTS, John A.K. Tucker, , P.O. Box 297, Fuquay-Varina, North Carolina 27526, applied to Wake County for Special Use Approval for the use and development of the property described above which permit was granted by Wake County on February 11, 2003.

To expand an existing Land Clearing and Inert Debris (LCID) landfill by 1.4 acres in surface area, and by a vertical (upward) expansion of 50 feet within the existing Phase I cell and filling of the alleyway gaps in the area of Phase II cell.

John A.K. Tucker  
PETITIONER

*[Signature]*  
OWNER (if other than petitioner)

I, Erin Reyes, a Notary Public in and for said County and State do hereby certify that Glenn Curwin, personally appeared before me and acknowledged the execution of this document. Witness my hand and official stamp or seal, this 25 day of March, 2003.



*[Signature]*  
Notary Public  
My Commission Expires: 6/2/06

WAKE COUNTY

BY

*[Signature]*  
Becky Smith, Clerk  
Wake County Board of Adjustment

*[Signature]*  
Melinda Clark, Wake County  
Land Development Administrator

I, Brenda F. Coats, a Notary Public in and for said County and State do hereby certify that Melinda Clark, Land Development Administrator of Wake County, and Becky Smith, Clerk to the Wake County Board of Adjustment, personally appeared before me and duly sworn says each for himself/herself that he/she knows that this document is a true and accurate account of the Order of The Board of Adjustment to the Land Development Administrator to issue said special use approval subject the any terms or conditions specified in the order.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal this the 11<sup>th</sup> day of November, 2003.



*[Signature]*  
Notary Public  
My Commission Expires: 9-1-2003

Kacey Sewell - Poyner & Spruill, LLP  
3600 Glenwood Ave  
Raleigh NC 27612

Laura M Riddick  
Register of Deeds  
Wake County, NC



Book : 009994 Page : 01087 - 01088

**Yellow probate sheet is a vital part of your recorded document.  
Please retain with original document and submit for rerecording.**



**Wake County Register of Deeds  
Laura M. Riddick  
Register of Deeds**

**North Carolina - Wake County**

The foregoing certificate 2 of EVON Keyes  
Brenda F Coats

\_\_\_\_\_ Notary(ies) Public is (are) certified to be correct. This instrument and this certificate are duly registered at the date and time and in the book and page shown on the first page hereof.

Laura M. Riddick, Register of Deeds  
By: Vernice S. Grew  
Assistant/Deputy Register of Deeds

**This Customer Group**  
\_\_\_\_\_ # of Time Stamps Needed

**This Document**  
2 New Time Stamp  
\_\_\_\_\_ # of Pages

**Attachment D**

**Operations Manual**

**Permit Renewal Application  
Sunset Lake LCID Landfill & Recycling Facility  
Holly Springs, North Carolina**

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# Operations Manual

## Sunset Lake LCID Landfill & Recycling Facility Holly Springs, North Carolina

Prepared For:

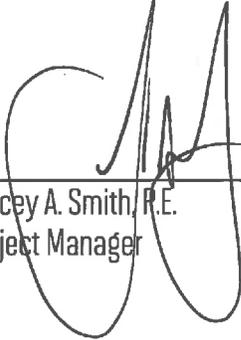
**Currin Bros. Inc.**  
**Raleigh, North Carolina**

**S+G Project No. Currin 13-1**



---

Madeline German, P.G.  
Project Geologist



---

Stacey A. Smith, R.E.  
Project Manager



**April 2014**

# SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

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# Sunset Lake LCID Landfill & Recycling Facility Holly Springs, North Carolina

## Operations Manual

### Table of Contents

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## 1.0 GENERAL FACILITY OPERATIONS

This Operations Manual was prepared for operations of the Sunset Lake LCID Landfill and Recycling facility (Permit No.92N-LCID-1986) located at 4525 Sunset Lake Road in Holly Springs, North Carolina. This document discusses the operation of the LCID Landfill, wood waste processing and other solid waste management activities:

**Figure 1** is a USGS map of the site and **Figure 2** is a site map that illustrates the location of existing and proposed landfill units and other solid waste management activities.

The information contained herein was prepared to provide facility personnel with a clear understanding of how the Design Engineer assumed that the completed facility would be operated and how regulatory operations criteria will be met. While deviations from the operations procedures outlined herein may be acceptable, they must be reviewed and approved by the NC Department of Environment and Natural Resources (DENR) Division of Waste Management (DWM) prior to implementation. Additionally, the Design Engineer should be consulted regarding any changes which may affect the facility design

### 1.1 Contact Information

All correspondence and questions concerning the Sunset Lake LCID Landfill and Recycling Facility operation should be directed to the appropriate personnel listed below. For fire or police emergencies dial 911.

#### 1.1.1 Owner

Currin Bros. Inc.  
1610 Wolfpack Lane  
Raleigh, NC 27609  
Phone: (919) 876-1138

Sunset Lake Facility  
4525 Sunset Lake Road  
Holly Springs, NC 27539  
Phone: (919) 614-2374

Primary Contact: Allen Currin

#### 1.1.2 Engineer

Smith Gardner, Inc.  
14 N. Boylan Ave.  
Raleigh, NC 27603  
Phone: (919) 828-0577

Primary Contact: Stacey A. Smith, P.E.  
[stacey@smithgardnerinc.com](mailto:stacey@smithgardnerinc.com)

### 1.1.3 North Carolina Department of Environment and Natural Resources

North Carolina DENR - Raleigh Central Office (RCO)  
217 W. Jones Street  
Raleigh, NC 27603  
1646 Mail Service Center  
Raleigh, NC 27699-1646  
Phone/Fax: (919) 707-8200

North Carolina DENR - Raleigh Regional Office (RRO)  
3800 Barrett Drive  
Raleigh, NC 27609  
Phone: (919) 571-4700  
Fax: (919) 571-4718

#### Division of Waste Management (DWM) - Solid Waste Section:

Eastern District Supervisor: Dennis Shackelford (FRO)  
Environmental Senior Specialist: Shawn Mckee (RCO)

#### Division of Land Resources - Land Quality Section:

Regional Engineer: John Holley, P.E. (RRO)

## 1.2 Facility Operating Hours

Normal hours of operation will be 7:00 A.M. to 7:00 P.M. Monday through Saturday. The facility will be closed on Sunday and on holidays as designated by the owner.

The owner may elect to modify these hours from time to time.

## 1.3 Site Access

The site will be accessed by the existing entrances on Sunset Lake Road. A guard house is located prior to the active disposal or processing area, and may change as needed.

### 1.3.1 Physical Restraints

Limiting access to the facility is important for the following reasons:

- Unauthorized and illegal dumping of debris materials is prevented.
- Trespassing, and injury resulting therefrom, is discouraged.
- The risk of vandalism is greatly reduced.

Access to active areas of the facility will be controlled by a combination of fences, natural barriers and strictly enforced operating hours. An attendant will be on duty at all times when the facility is open for public use to enforce access restrictions (see also **Section 1.2**). Entrance gates will be securely locked during non-operating hours.

### 1.3.2 Security

The facility is secured by fencing, security gates and natural buffers. Frequent gate and fence inspections will be performed by landfill personnel. Evidence of trespassing, vandalism, or illegal operation will be reported to the owner.

## 1.4 Signage

A prominent sign(s) containing the information required by the DWM will be placed at the facility entrance. The sign(s) will provide information on operating hours, operating procedures and acceptable wastes. Additional signage will be provided as necessary within the facility to distinctly distinguish the roadway to the active area(s). Service and maintenance roads for use by facility staff will be clearly marked and barriers (e.g., traffic cones, barrels, etc.) will be provided as required.

## 1.5 Communications

Cell phones will be used to maintain communication between on-site staff at the active landfill unit and the landfill guard house.

## 1.6 Fire Control

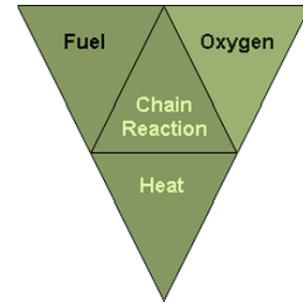
The possibility of fire within the landfill or a piece of equipment must be anticipated in the daily facility operation. Potential fire hazards include both surface conditions and subsurface conditions. Surface conditions include equipment operations and newly placed debris. Subsurface conditions include existing debris previously landfilled.

### 1.6.1 Open Burning

With the exception of the controlled burning of land clearing debris generated on-site or from emergency clean-up operations, no opening burning is allowed at the facility. Controlled burning will occur only if permitted or approved by the DWM, the Division of Air Quality (DAQ), and the local fire department.

### 1.6.2 Fire Tetrahedron<sup>1</sup>

To better understand the properties of fire, the fundamental methods to extinguish it must be understood. The fire “tetrahedron” illustrates the rule that to ignite and burn, each component of the tetrahedron (fuel, oxygen, heat, and/or chemical chain reaction) represents a property of flaming fire. A fire is prevented or extinguished by “removing” any one of them.



A fire naturally occurs when the elements are combined in the right mixture (e.g., more heat needed for igniting some fuels, unless there is concentrated oxygen). The fire tetrahedron is a more modern adaptation of the traditional fire “triangle” recognizing the chemical reactions that may occur as a component - “the uninhibited chain reaction”. This chain reaction is the feedback of heat to the fuel to produce the gaseous fuel used in the flame. In other words, the chain reaction provides the heat necessary to maintain the fire. These principles are integral in the prevention and management of potential fire situations. *Please note this information is considered as a basis of understanding which may be superseded by the direction and skill of the local Fire Marshal.*

### 1.6.3 Equipment

A combination of factory installed fire suppression systems and/or portable fire extinguishers will be operational on all pieces of heavy equipment at all times. Potential fire hazards are created from the build-up of fine, dry dust particles on and around operational motors and control panels. The presence of these build-ups can cause overheating and potential fire if periodic equipment cleaning and maintenance are not practiced. Portable fire extinguishers should be maintained in a state of readiness on each piece of moving equipment and equipment should be cleaned periodically.

### 1.6.4 General Fire Management Strategies

Each fire situation is site specific; however, general strategies for active fire management include the following (in no particular order):

- Accelerated high temperature combustion (displacing fuel);
- Covering burning material with soil (reduce oxygen);
- Covering burning material with foams (reduce oxygen);
- Flooding burning material with water (reduce heat);
- Injecting an inert gas such as CO<sub>2</sub> (reduce oxygen);
- Excavating the burning material (displacing fuel) and then extinguishing it in small controlled areas; and

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<sup>1</sup> National Fire Protection Association ([www.nfpa.org](http://www.nfpa.org)).

- Applying extinguishing agents that will interfere with and inhibit the combustion process at the molecular level (break the chemical reaction).

### 1.6.5 Fires Within Disposal Areas

Fires within the landfill disposal areas will be limited by the use of periodic cover as a fire break and control of "hot" loads entering the landfill. Landfill personnel at the guard house will turn away all trucks containing debris that is suspected to be hot. If a hot load is placed on the working face, then the load will be spread as thin as possible and cover soil will be immediately placed on the debris to extinguish the fire.

In general, fires that break out close to the surface of the disposal area should be excavated and smothered with cover material. Deep fires should be smothered out by placing moist soil on the surface and by constructing soil barriers around the fire. Where the smothering technique fails, the burning material must be excavated and smothered or quenched with water once the burning material is brought to the surface. Water is usually not effective unless it can be directly applied to the burning material.

### 1.6.6 Notification

The owner will verbally notify the DWM (see **Section 1.1.2**) within 24 hours of discovery of a fire within any landfill disposal area. In addition, written documentation describing the fire, the actions carried out to extinguish the fire, and a strategy for preventing future occurrences will be provided to the DWM within 15 days following any such occurrence using the DWM's Fire Occurrence Notification Form (see **Appendix A**).

## 1.7 Severe Weather Conditions

Unusual weather conditions can directly affect landfill facility operations. Some weather conditions and recommended operational responses are as follows.

### 1.7.1 Ice Storms

An ice storm can make access to the facility dangerous, prevent movement or placement of daily cover, and, thus, may require closure of the facility until the ice is removed or has melted.

### 1.7.2 Heavy Rains

Exposed soil surfaces can create a muddy situation in some portions of the facility during rainy periods. The control of drainage and use of crushed stone on unpaved roads should provide all-weather access for the site and promote drainage away from critical areas. In areas where the aggregate surface is washed away or otherwise damaged, new aggregate should be used for repair.

Intense rains can affect newly constructed drainage structures such as swales, diversions, cover soils, and vegetation. After such a rain event, inspection by facility personnel will be initiated and corrective measures initiated to repair any damage found before the next rainfall. In extreme cases the landfill will be closed for employee and customer safety and to prevent excessive site damage.

### 1.7.3 Electrical Storms

The open area of the facility is susceptible to the hazards of an electrical storm. If necessary, activities will be suspended during such an event. Refuge will be sought as necessary in the on-site buildings or in rubber-tired vehicles.

### 1.7.4 Violent Storms

In the event of hurricane, tornado, or severe winter storm warning issued by the National Weather Service, facility operations may be suspended until the warning is lifted. Daily cover will be placed on exposed debris and buildings and equipment will be properly secured.

## 1.8 Equipment Requirements

The owner will maintain on-site equipment required to perform the necessary site activities. Periodic equipment maintenance and minor and major repair work will be performed in designated maintenance zones.

The available equipment for daily operation and site maintenance are listed in the following table. However the operator may change as needed.

**Table 1 Available Equipment**

| Description            | Number | Primary Function (Allocation)   |
|------------------------|--------|---|
| 1) Dozer               | 6      | Stripping and grading of borrow areas, fine grading, slope work, and site cleanup (2-D-7s, 2-D-6s and 2-953s) |
| 2) Trackhoe            | 5      | General site work, sediment control, and site cleanup   |
| 3) Off-Road Dump Truck | 2      | Loading and hauling of cover soils  |
| 4) Grinder (Tub)       | 1      | Grinding/shredding of bulky wood debris into mulch  |
| 5) Screen (Trommel)    | 1      | Process material to uniform consistency and sorting of various gradation                                      |

## 1.9 Personnel Requirements

The facility maintains a very low staff turnover rate. The current operators have been working at the facility from 10 to 30 years; therefore, the long employment history ensures facility procedures are known and followed. The anticipated personnel

requirements for site operation and maintenance are listed in the following table. However, personnel may be adjusted as needed.

**Table 2 Personnel Requirements**

| Description         | Primary Function (Allocation)                       |
|---------------------|---|
| 1) Site Manager - 1 | Overall management of the facility                  |
| 2) Operator - 2     | General labor and operational staff around the site |

## 1.10 Health and Safety

All aspects of the facility operations were developed with the health and safety of the operating staff, customers and neighbors in mind. Safety equipment provided includes equipment rollover protective cabs, seat belts, audible reverse warning devices, hard hats, safety shoes and first aid kits. Facility personnel will be encouraged to complete the American Red Cross Basic First Aid Course. Other safety requirements as designated by the owner may also be implemented.

The following are some general recommendations for the health and safety of workers:

### 1.10.1 Personal Hygiene

The following items are recommended as a minimum of practice:

- Wash hands before eating, drinking, or smoking.
- Wear personal protective equipment as described in **Section 1.10.2**.
- Wash, disinfect, and bandage ANY cut, no matter how small it is. Any break in the skin can become a source of infection.
- Keep fingernails closely trimmed and clean (dirty nails can harbor pathogens).

### 1.10.2 Personal Protective Equipment

Personal Protective Equipment (PPE) must be evaluated as to the level of protection necessary for particular operating conditions and then made available to facility employees. The list below includes the PPE typically used and/or required in a solid waste management facility workplace.

- Safety shoes with steel toes.
- Noise reduction protection should be used in areas where extended exposure to continuous high decibel levels are expected.
- Disposable rubber latex or chemical resistant gloves for handling and/or sampling of debris materials.
- Dust filter masks (voluntary).
- Hard hats (in designated areas).

Following use, PPE's should be disposed of or adequately cleaned, dried, or readied for reuse.

#### 1.10.3 Mechanical Equipment Hazard Prevention

Equipment should be operated with care and caution. All safety equipment such as horns, backup alarms, and lights should be functional. A Lockout-Tagout program will be used to identify equipment in need or under repair and insure that operation is "off-limits" prior to maintenance or repair.

#### 1.10.4 Employee Health and Safety

Some general safety rules are:

- Consider safety first when planning and conducting activities.
- Review the equipment O&M manual(s) prior to attempting repairs/changes.
- Remember the buddy system for mechanical equipment repair.
- Post emergency contact phone numbers.
- Provide easy and visible access to the Right to Know materials.
- Provide easy and visible access to first aid kits and fire extinguishers.

#### 1.10.5 Physical Exposure

Facility personnel may come in contact with the fluids, solids and airborne constituents found at the facility. Safe work practices around these potential exposures as well as appropriate equipment use and proper disposal procedures will be followed.

#### 1.10.6 Material Safety Data Sheets

Material Safety Data Sheets (MSDS) will be made available for all chemicals stored on site for use at the facility.

### 1.11 **Record Keeping Program**

The owner will maintain the following records at the corporate office and with the engineer:

- A. Current permit(s) (Permit to Construct, Permit to Operate, etc.);
- B. Current operations manual/plan(s) and engineering plan for each landfill unit;
- C. Inspection reports;
- D. Audit and compliance records;
- E. Annual reports (including survey and other documentation related to airspace usage in landfill units);
- F. Daily tonnage records;

- G. Closure information, where applicable, including:
1. Notification of intent to close;
  2. Testing;
  3. Certification; and
  4. Recording.

The operating record will be kept up to date by the owner or his designee; it will be presented, on request, to the DWM for inspection.



## 2.0 DEBRIS HANDLING OPERATIONS

This section describes the required debris handling operations for the Sunset Lake LCID Landfill facility.

### 2.1 Acceptable Material

Only the following waste materials generated within the approved service area may be disposed of in the LCID landfill unit:

- Land Clearing and Inert Debris Landfill: as defined in *15A NCAC 13B.0101(22)* means a facility for the disposal of land-clearing waste, concrete, brick, concrete block, uncontaminated soil, gravel and rock, untreated and unpainted wood, and yard trash.
- Land Clearing Waste: as defined in *15A NCAC 13B.0101(23)* means solid waste which is generated solely from land-clearing activities, limited to stumps, trees, limbs, brush, grass, and other naturally occurring vegetative material.
- Other Wastes as Approved by the Solid Waste Section of the Division of Waste Management.

### 2.2 Prohibited Wastes

No municipal solid waste (MSW), construction and demolition debris waste (C&D), hazardous waste (as defined by *15A NCAC13A* including hazardous waste from conditionally exempt small quantity generators), or liquid waste will be accepted at this facility. In addition, no polychlorinated biphenyl (PCB) waste will be accepted. The Sunset Lake facility follows a strict screening program, described in **Section 2.3**, to ensure no prohibited waste is accepted.

### 2.3 Receiving, Handling and Disposal

To assure that prohibited wastes are not entering the facility, screening programs have been implemented. Using this method the facility screens 100% of loads, facility customers are strongly discouraged from delivering unacceptable waste and all debris deposited in the landfill has been accounted as acceptable. The frequency for screening includes every load described as follows.

#### 2.3.1 Receiving

All vehicles must stop at the guard house located prior to the active area and visitors are required to sign-in. All debris transportation vehicles have their load content assessed. The driver of every load is briefly interviewed when entering the facility. If you are a new hauler, a more comprehensive interview, as well as in depth explanation of landfill policy and procedure is conducted. The time, date, name and license plate for every load is recorded on the days log sheet.

Additionally, the guard house attendant(s) request from the vehicle driver a description of the debris being carried to ensure that unacceptable waste is not allowed into the facility. The attendant(s) then visually checks the vehicle as it enters the facility. Signs informing users of the acceptable and unacceptable types of waste are posted at the entrance. Once past the guard house, the vehicles are routed to the appropriate disposal unit or other area as applicable. The hauler is responsible for removing unacceptable waste from the facility property.

### 2.3.2 Disposal

All debris unloaded on the active face will be inspected by the equipment operators, trained to spot unacceptable wastes, before and during spreading and compaction. Each load is dumped in front of a trackhoe and operator and immediately spread on the current lift by the trackhoe bucket and visually observed. Any suspicious looking material is reported immediately to the designated primary inspector for further evaluation. If any on-site personnel notice prohibited waste, it is placed back into the vehicle of origin and a significant penalty (fine) is levied against all offenders.

Personnel will direct traffic as necessary to expedite safe vehicle movement. Caution will be used in wet conditions such that no debris will be placed into ponded water. Likewise, surface water will not be allowed to be impounded over waste.

## 2.4 Cover

Adequate soil cover shall be applied monthly or when the active area reaches one acre in size. If necessary, cover may be placed at more frequent intervals to control disease vectors, fires, odors and scavenging. 120 days following completion of phase operations, the area will be covered with a minimum one foot soil cover that allows controlled water runoff.

## 2.5 Height Monitoring

Periodically the facility staff will monitor landfill top and side slope elevations with a level. When such elevations approach design grades, the final top-of-waste grades will be staked to limit over-placement of waste.

## 2.6 Yard Waste Processing Area Operations

This section describes the recovery and processing operations for the Sunset Lake Landfill & Recycling Facility.

## 2.6.1 Recovery (Mining) Operation

The recovery operations will be performed at the Sunset Lake Facility on a limited basis to supplement the processing operations as described in **Section 2.6.2** below. Generally, the process includes excavation, sorting of the material into small and large fraction materials for grinding and screening.

## 2.6.2 Wood Waste Processing Operation

### 2.6.2.1 Grinding/Chipping

Grinding and/or chipping will be conducted centrally on the site. Locations are shown on **Figure 2**. The grinding/chipping operations will be conducted as needed to facilitate the landfill recovery and incoming debris operations. The facility intends to utilize a single grinder to process the collected material. The material will be directed to the grinders as per the material size. It is anticipated that grinding and chipping will be conducted on a periodic basis as materials are available. Grinders and chippers pose both maintenance and safety hazards. Therefore, please refer to the manufacturer's safety and/or maintenance literature prior to operating equipment on site.

### 2.6.2.2 Screening

The screening process is conducted after the grinding/chipping has been completed to remove the remaining large materials for a uniform product that can be distributed to the public. The finished product is stored on site in a loading area until ready for distribution. The finished products are anticipated as follows:

- Mulch;
- Mixed Mulch and Soil

Once the debris is ground and becomes mulch, it is used either around the site, primarily for surface stabilization, or placed in windrows to be given to the public or otherwise used in the future. If during the screening process additional non-conforming wastes are identified, they will be removed and placed in the stockpiles or containers for disposal off-site. Screening machines pose both maintenance and safety hazards. Therefore, please refer to the manufacturer's safety and or maintenance literature prior to operating equipment at the site.

### 2.6.2.3 Stockpiling

Materials will be stored in stockpiles in the designated area on site. Stockpiles will be managed to not create excess heat. The minimum

buffer between stockpiles and all operation equipment is 20 feet. These distances reduce the risk and aid in putting out a fire. For safety and fire protection the stockpiles will be monitored for size and temperature. The stockpiles must maintain a temperature of less than 110 degrees Fahrenheit. By monitoring and avoiding excessive temperatures the stockpiles will avoid combustion which leads to possible fire and odors.

#### 2.6.2.4 Markets

The market for the proposed mulch and soil will include the surrounding residential and commercial development in the area.

## 3.0 ENVIRONMENTAL MANAGEMENT

This section reviews the overall environmental management tasks required for the successful operation of the Sunset Lake LCID and Recycling Facility.

### 3.1 Surface Water Control

As used herein, the definition of “surface water” is water which results from precipitation or site run-on that has not contacted the waste.

Proper surface water control at the facility will accomplish the following goals:

- Minimize the potential for the discharge of pollutants to waters of the United States, including wetlands (point or non-point sources);
- Prevent the run-on of surface water into the landfill unit(s) or the active face(s);
- Prevent the run-off of surface water that has come into contact with the waste (i.e. leachate);
- Limit the erosion caused by surface waters;
- Limit sediments carried off-site by surface waters; and
- Maximize the SEPARATION of SURFACE water from LEACHATE.

Erosion and sedimentation control plans are on site for the landfill units and other site activities. These plans describe both short and long term engineered features and practices for preventing erosion and controlling sedimentation at this site. The following is a brief discussion of some of these features and practices, focusing more on the landfill units.

#### 3.1.1 Surface Water Run-On Control

The perimeter berms and/or perimeter channels around the landfill unit(s) are designed to prevent the run-on of surface water from adjacent land into the landfill. Additional structures such as diversion berms, channels, down pipes, etc. carry surface water away from the landfill.

#### 3.1.2 Active Face Run-Off Control

Particular care is required to ensure that surface water coming from the active face, e.g. having potential contact with the waste, is allowed to percolate into the underlying waste. Only run-off from disposal surfaces that have received adequate cover is not considered leachate and should be directed to the stormwater drainage system where practical.

### 3.1.3 Erosion Control

The serviceability of the landfill relies heavily on soil berms, barrier layers, and agricultural layers that are readily eroded by flowing water. Erosion control provisions incorporated in the landfill include the following:

- The slope of the working face should typically be no steeper than practical to limit erosion of the periodic cover.
- Intermediate cover that has been exposed for more than 30 days must be seeded immediately and repaired when erosion features are identified.
- Water collected by each drainage break is routed to stormwater drainage channels or down pipes so that the run-off volume does not accumulate going down the slope.
- The vegetative soil layer placed over the final cover must be seeded immediately.

Additional erosion control measures have been established within the drainage channels and at points of stormwater discharge. Final cover should be inspected regularly for erosion damage and promptly repaired. Revegetation should be performed in accordance with the requirements of the applicable erosion and sedimentation control plan and/or the NC Erosion and Sedimentation Control Planning and Design Manual<sup>2</sup>.

### 3.1.4 Sedimentation Control

Stormwater run-off from the landfill unit(s) is conveyed to one of the on-site sediment basins. These basins should be inspected regularly for sediment build-up or erosion damage. The basins and/or traps should be cleaned out when sediment fills the lower half of the basin.

## 3.2 Vector Control

Due to the nature of the waste disposed in this landfill unit, vector control is not anticipated to be of concern. Note that the use of periodic cover will discourage animals from nesting in the waste.

## 3.3 Odor Control

Due to the nature of the waste disposed in this landfill unit, odor control is not anticipated to be of concern. However, if odor control becomes a problem, additional measures (such as additional cover) will be implemented to ensure odor control.

---

<sup>2</sup> NC Division of Land Resources (Current Update), North Carolina Erosion and Sediment Control Planning and Design Manual, NCDENR - Division of Land Resources - Land Quality Section, Raleigh, NC.

### **3.4 Dust Control**

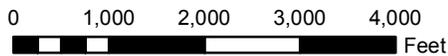
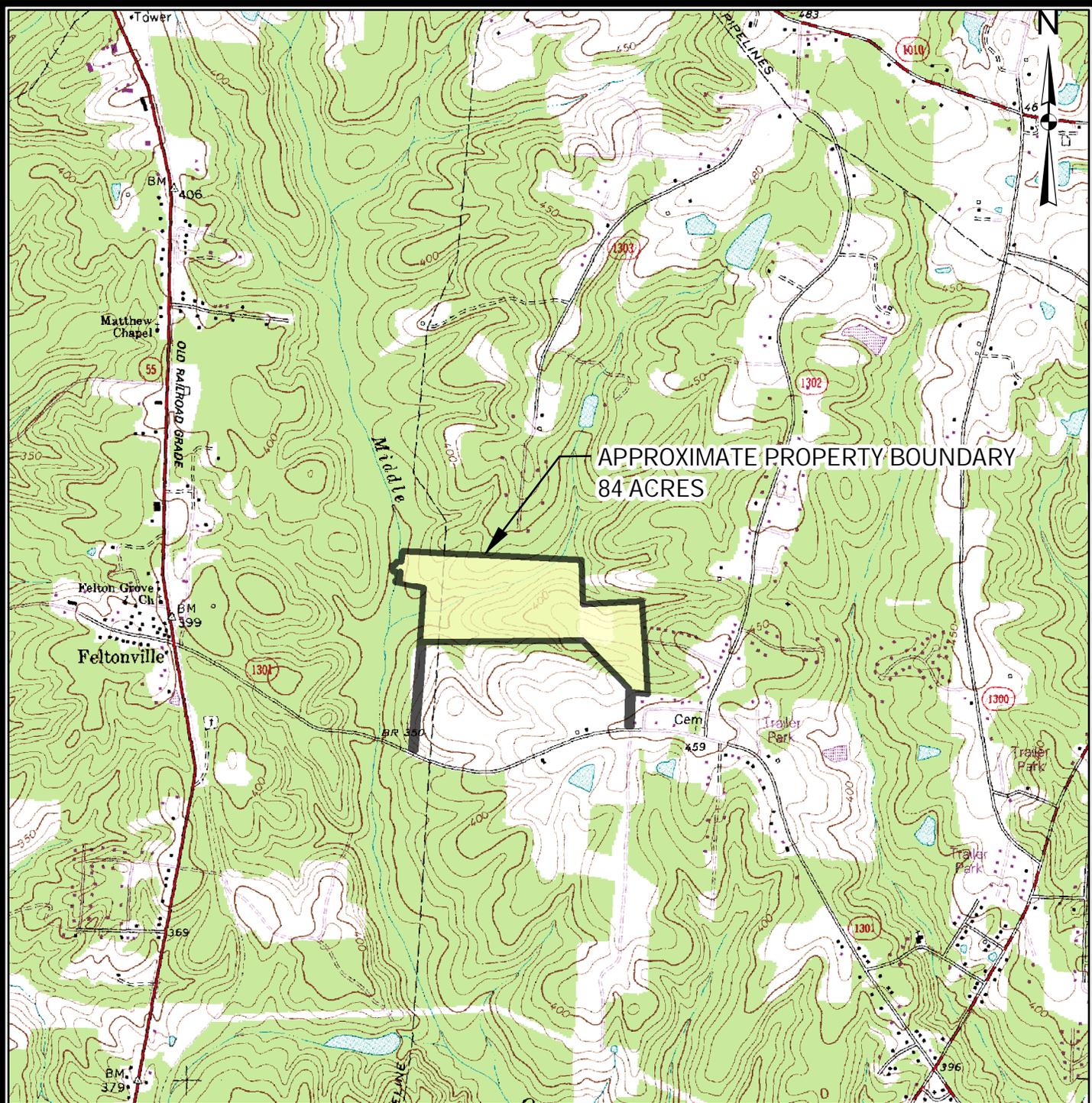
Dust related to equipment operations and traffic on the access roads will be minimized by using a water truck to limit dust on the gravel portion of the road. Fugitive dust emissions are anticipated during grinding and screening operations and should not be conducted when windy conditions are present. Additionally, screening will be limited on dry material to minimize the effect of dust on the surrounding area. Operator discretion will determine if site conditions are favorable for processing activities.

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## **FIGURES**

**Operations Manual  
Sunset Lake LCID Landfill & Recycling Facility  
Holly Springs, North Carolina**

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REFERENCE: TOPOGRAPHY FROM U.S.G.S. 7.5 MIN. QUADRANGLE "APEX, NC", DATED 1974, PHOTOREVISED 1987, PHOTOINSPECTED 1988.

**CURRIN BROTHERS LANDFILL  
LCID LANDFILL AND RECYCLING FACILITY  
SITE LOCATION MAP**

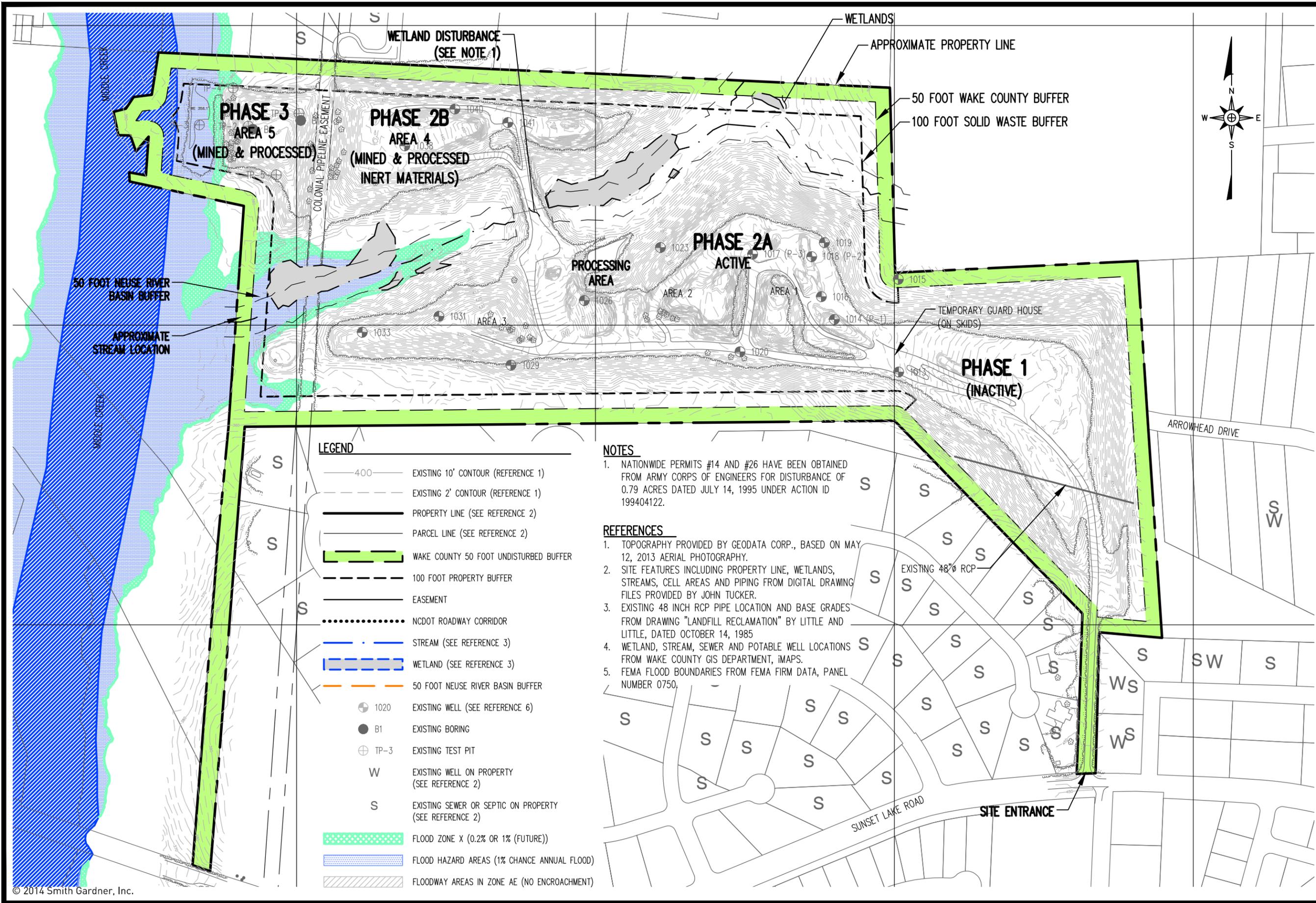
NC LIC. NO. C-0828 (ENGINEERING)

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14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

|                  |                     |                    |                    |                             |                  |
|------------------|---------------------|--------------------|--------------------|-----------------------------|------------------|
| DRAWN:<br>J.A.L. | APPROVED:<br>S.A.S. | SCALE:<br>AS SHOWN | DATE:<br>May, 2014 | PROJECT NO.:<br>CURRIN 13-1 | FIGURE NO.:<br>1 |
|------------------|---------------------|--------------------|--------------------|-----------------------------|------------------|

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|              |              |
|--------------|--------------|
| FIGURE NO.   | 2            |
| SCALE:       | AS SHOWN     |
| APPROVED:    | J.A.L.       |
| DRAWN:       | J.A.L.       |
| PROJECT NO.: | CURRIN 13-1  |
| FILENAME:    | CURRIN-B0007 |
| DATE:        | May 2014     |

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## **Appendix A**

### **Fire Occurrence Notification Form**

**Operations Manual  
Sunset Lake LCID Landfill & Recycling Facility  
Holly Springs, North Carolina**

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**SOLID WASTE MANAGEMENT FACILITY  
 FIRE OCCURRENCE NOTIFICATION  
 NC DENR Division of Waste Management  
 Solid Waste Section**



Notify the Section verbally within 24 hours and submit written notification within 15 days of the occurrence.  
*(If additional space is needed, use back of this form.)*

NAME OF FACILITY: \_\_\_\_\_ PERMIT # \_\_\_\_\_

DATE AND TIME OF FIRE: \_\_\_\_\_ @ \_\_\_\_\_

HOW WAS THE FIRE REPORTED AND BY WHOM:  
 \_\_\_\_\_

LIST ACTIONS TAKEN:  
 \_\_\_\_\_

WHAT WAS THE CAUSE OF THE FIRE:  
 \_\_\_\_\_

DESCRIBE AREA, TYPE, AND AMOUNT OF WASTE INVOLVED:  
 \_\_\_\_\_

WHAT COULD HAVE BEEN DONE TO PREVENT THIS FIRE:  
 \_\_\_\_\_

DESCRIBE PLAN OF ACTIONS TO PREVENT FUTURE INCIDENTS:  
 \_\_\_\_\_

NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

\*\*\*\*\*  
 THIS SECTION TO BE COMPLETED BY SOLID WASTE SECTION REGIONAL STAFF  
 DATE RECEIVED \_\_\_\_\_  
 List any factors not listed that might have contributed to the fire or that might prevent occurrence of future fires:  
 \_\_\_\_\_

FOLLOW-UP REQUIRED:  
 NO     PHONE CALL     SUBMITTAL     MEETING     RETURN VISIT    BY: \_\_\_\_\_ (DATE)

ACTIONS TAKEN OR REQUIRED:  
 \_\_\_\_\_

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**Attachment E**

**Soil Boring Logs**

**Permit Renewal Application  
Sunset Lake LCID Landfill & Recycling Facility  
Holly Springs, North Carolina**

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3200 Wellington Court, Suite G  
Raleigh, North Carolina 27615  
919-954-1514  
Fax 919-954-1428

June 17, 1996

Currin Brothers, Inc.  
P.O. Box 547  
Fuquay Varina, NC 27526

Attention: Mr. Scott Shellabarger

Reference: Monitoring Well Installation  
Groundwater Elevations  
Currin Brothers Landfill Expansion  
Holly Springs, North Carolina  
GeoTechnologies Project No. 1-96-0553-EA

Gentlemen:

GeoTechnologies, Inc. has completed the installation of twelve temporary piezometers located on a parcel of land proposed for use as a landfill located in Holly Springs, North Carolina. As authorized, GeoTechnologies installed twelve temporary piezometers extending to depths of approximately 50 feet which were constructed of slotted plastic bottom sections with solid plastic risers to measure groundwater elevations at the site.

The groundwater elevations were measured at approximately 96 hours after the wells were installed and the results of our investigation are shown on the attached Table 1. The approximate locations of each individual temporary piezometer is shown on the attached Figure 1.

GeoTechnologies, Inc. appreciates the opportunity to have provided you with our services on this phase of the project. Please contact us if you should have questions regarding this letter or if we may be of any further assistance.

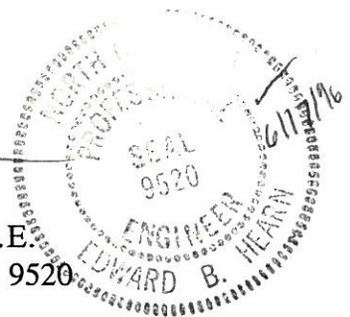
Very truly yours,

GeoTechnologies, Inc.

Charles D. Huffine, E.I.T.  
Staff Engineer

CDH/fgo  
Attachments

Edward B. Hearn, P.E.  
NC Registration No. 9520



**TABLE 1**  
**CURRIN BROTHERS LANDFILL**  
**GEOTECHNOLOGIES PROJECT NO. 1-96-0553-EA**

| <u>Well No.</u> | <u>Ground Surface Elevation<br/>(feet)</u> | <u>Water Surface Elevation<br/>(feet)<br/>(@ 96 Hours)</u> |
|-----------------|--|--|
| 1016            | 418.4                                      | 378.8  |
| 1019            | 409.15                                     | 374.12   |
| 1017            | 402.65                                     | 373.67   |
| 1020            | 398.17                                     | 380.22   |
| 1023            | 390.37                                     | 366.08   |
| 1026            | 388.71                                     | 359.64   |
| 1029            | 377.13                                     | 356.52   |
| 1031            | 372.45                                     | 353.08   |
| 1033            | 362.93                                     | DRY  |
| 1038            | 365.21                                     | 354.37   |
| 1040            | 375.76                                     | 359.35   |
| 1041            | 363.76                                     | 357.48   |



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**Attachment F**

**Existing Survey & Airspace**

**Permit Renewal Application  
Sunset Lake LCID Landfill & Recycling Facility  
Holly Springs, North Carolina**

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PREPARED FOR:  
**CURRIN BROTHERS, INC.**  
 P.O. BOX 547  
 FUQUAY-VARINA, NC 27526

PREPARED BY:  
 NC LIC. NO. C-0828 (ENGINEERING)  
**SMITH+GARDNER**  
 ENGINEERS  
 14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



**PERMIT ISSUE**  
**NOT FOR CONSTRUCTION**

**LEGEND**

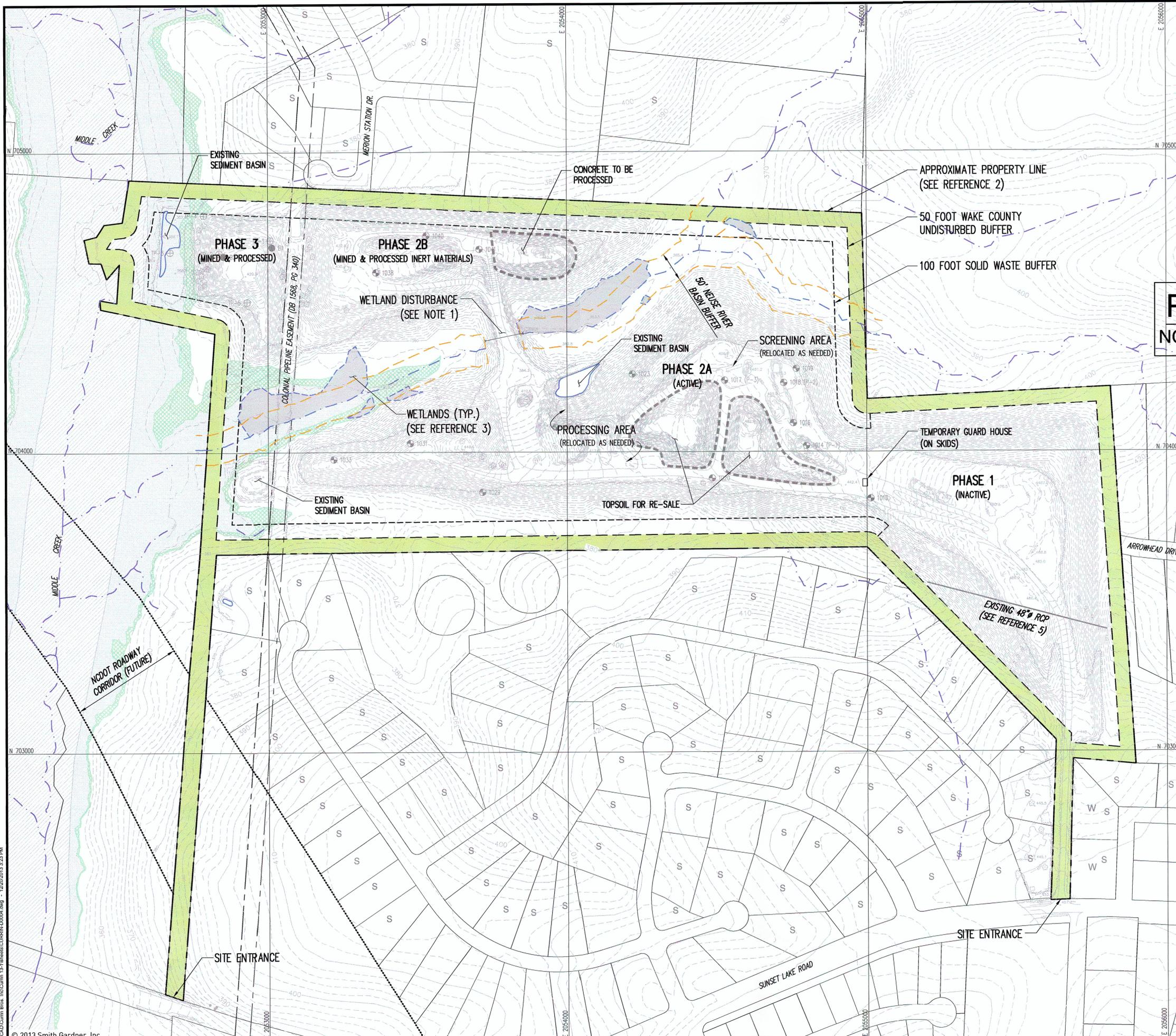
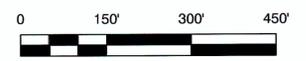
- 400 — EXISTING 10' CONTOUR (REFERENCE 1)
- 2' — EXISTING 2' CONTOUR (REFERENCE 1)
- - - - - PROPERTY LINE (SEE REFERENCE 2)
- - - - - PARCEL LINE (SEE REFERENCE 2)
- WAKE COUNTY 50 FOOT UNDISTURBED BUFFER
- - - - - 100 FOOT PROPERTY BUFFER
- - - - - EASEMENT
- ..... NCDOT ROADWAY CORRIDOR
- STREAM (SEE REFERENCE 3)
- WETLAND (SEE REFERENCE 3)
- 50 FOOT NEUSE RIVER BASIN BUFFER
- 1020 EXISTING WELL (SEE REFERENCE 6)
- B1 EXISTING BORING
- ⊕ TP-3 EXISTING TEST PIT
- W EXISTING WELL ON PROPERTY (SEE REFERENCE 2)
- S EXISTING SEWER OR SEPTIC ON PROPERTY (SEE REFERENCE 2)
- FLOOD ZONE X (0.2% OR 1% (FUTURE))
- FLOOD HAZARD AREAS (1% CHANCE ANNUAL FLOOD)
- FLOODWAY AREAS IN ZONE AE (NO ENCROACHMENT)

**NOTES**

1. NATIONWIDE PERMITS #14 AND #28 HAVE BEEN OBTAINED FROM ARMY CORPS OF ENGINEERS FOR DISTURBANCE OF 0.79 ACRES DATED JULY 14, 1995 UNDER ACTION ID 199404122.

**REFERENCES**

1. TOPOGRAPHY WITHIN THE LIMITS OF THE SUBJECT PROPERTY FROM AERIAL SURVEY DATED MAY 12, 2013, PREPARED BY GEODATA CORPORATION, ZEBULON, NC. TOPOGRAPHY OUTSIDE OF THE SUBJECT PROPERTY BOUNDARY FROM NCDOT GIS DEPARTMENT.
2. PROPERTY BOUNDARY, SURROUNDING PARCELS, AND WELL/SEPTIC DATA FROM WAKE COUNTY GIS DEPARTMENT.
3. WETLAND AND STREAM AREAS WITHIN THE LIMITS OF THE SUBJECT PROPERTY PROVIDED BY JOHN TUCKER CONSULTING. STREAM LOCATIONS OUTSIDE OF THE SUBJECT PROPERTY FROM WAKE COUNTY GIS DEPARTMENT.
4. FLOOD BOUNDARIES FROM FEMA FIRM MAP NUMBER 3720075000I, EFFECTIVE DATE MAY 2, 2006.
5. EXISTING 48 INCH RCP PIPE LOCATION FROM DRAWING "LANDFILL RECLAMATION" BY LITTLE AND LITTLE, DATED OCTOBER 14, 1985.
6. EXISTING WELL, BORING, AND TEST PIT LOCATION PROVIDED BY JOHN TUCKER CONSULTING.

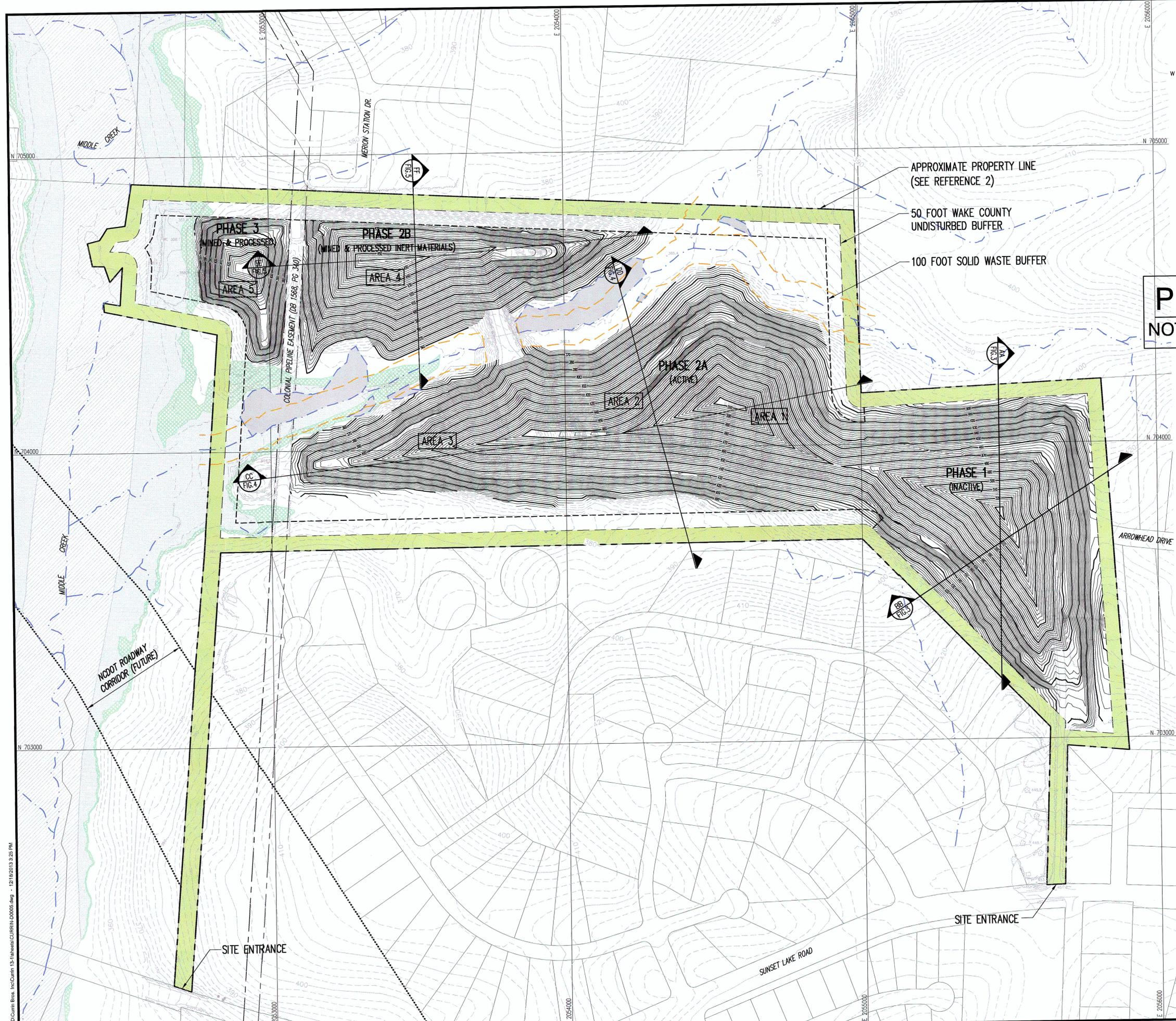


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PROJECT TITLE:  
**CURRIN BROTHERS LANDFILL  
 SUNSET LAKE ROAD  
 LCID LANDFILL &  
 RECYCLING FACILITY**

DRAWING TITLE:  
**EXISTING CONDITIONS**

|                       |                         |
|-----------------------|-------------------------|
| DESIGNED: S.A.S.      | PROJECT NO: CURRIN 13-1 |
| DRAWN: J.A.L.         | SCALE: AS SHOWN         |
| APPROVED: [Signature] | DATE: DEC. 2013         |
| FILENAME: CURRIN-0004 | DRAWING NUMBER:         |
| SHEET NUMBER: 1       | S1                      |



**PERMIT ISSUE**  
NOT FOR CONSTRUCTION

**LEGEND**

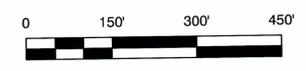
- EXISTING 10' CONTOUR (SEE REFERENCE 1)
- EXISTING 2' CONTOUR (SEE REFERENCE 1)
- PROPERTY LINE (SEE REFERENCE 2)
- PARCEL LINE (SEE REFERENCE 2)
- WAKE COUNTY 50 FOOT UNDISTURBED BUFFER
- 100 FOOT PROPERTY BUFFER
- EASEMENT
- NCDOT ROADWAY CORRIDOR
- STREAM (SEE REFERENCE 3)
- WETLAND (SEE REFERENCE 3)
- 50 FOOT NEUSE RIVER BASIN BUFFER
- FLOOD ZONE X (0.2% OR 1% (FUTURE))
- FLOOD HAZARD AREAS (1% CHANCE ANNUAL FLOOD)
- FLOODWAY AREAS IN ZONE AE (NO ENCROACHMENT)

**NOTES**

1. NATIONWIDE PERMITS #14 AND #26 HAVE BEEN OBTAINED FROM ARMY CORPS OF ENGINEERS FOR DISTURBANCE OF 0.79 ACRES DATED JULY 14, 1995 UNDER ACTION ID 199404122.

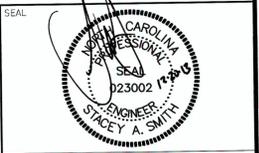
**REFERENCES**

1. TOPOGRAPHY WITHIN THE LIMITS OF THE SUBJECT PROPERTY FROM AERIAL SURVEY DATED MAY 12, 2013, PREPARED BY GEODATA CORPORATION, ZEBULON, NC. TOPOGRAPHY OUTSIDE OF THE SUBJECT PROPERTY BOUNDARY FROM NCDOT GIS DEPARTMENT.
2. PROPERTY BOUNDARY, SURROUNDING PARCELS, AND WELL/SEPTIC DATA FROM WAKE COUNTY GIS DEPARTMENT.
3. WETLAND AND STREAM AREAS WITHIN THE LIMITS OF THE SUBJECT PROPERTY PROVIDED BY JOHN TUCKER CONSULTING. STREAM LOCATIONS OUTSIDE OF THE SUBJECT PROPERTY FROM WAKE COUNTY GIS DEPARTMENT.
4. FLOOD BOUNDARIES FROM FEMA FIRM MAP NUMBER 37200750004, EFFECTIVE DATE MAY 2, 2006.



PREPARED FOR:  
**CURRIN BROTHERS, INC.**  
P.O. BOX 547  
FUQUAY-VARINA, NC 27526

PREPARED BY:  
NC LIC. NO. C-0828 (ENGINEERING)  
**SMITH+GARDNER**  
ENGINEERS  
14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



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PROJECT TITLE:  
**CURRIN BROTHERS LANDFILL  
SUNSET LAKE ROAD  
LCDI LANDFILL &  
RECYCLING FACILITY**

DRAWING TITLE:  
**FINAL COVER GRADING**

|                        |                         |
|------------------------|-------------------------|
| DESIGNED: S.A.S.       | PROJECT NO: CURRIN 13-1 |
| DRAWN: J.A.L.          | SCALE: AS SHOWN         |
| APPROVED:              | DATE: DEC. 2013         |
| FILENAME: CURRIN-D0005 | DRAWING NUMBER:         |
| SHEET NUMBER: <b>2</b> | <b>S2</b>               |

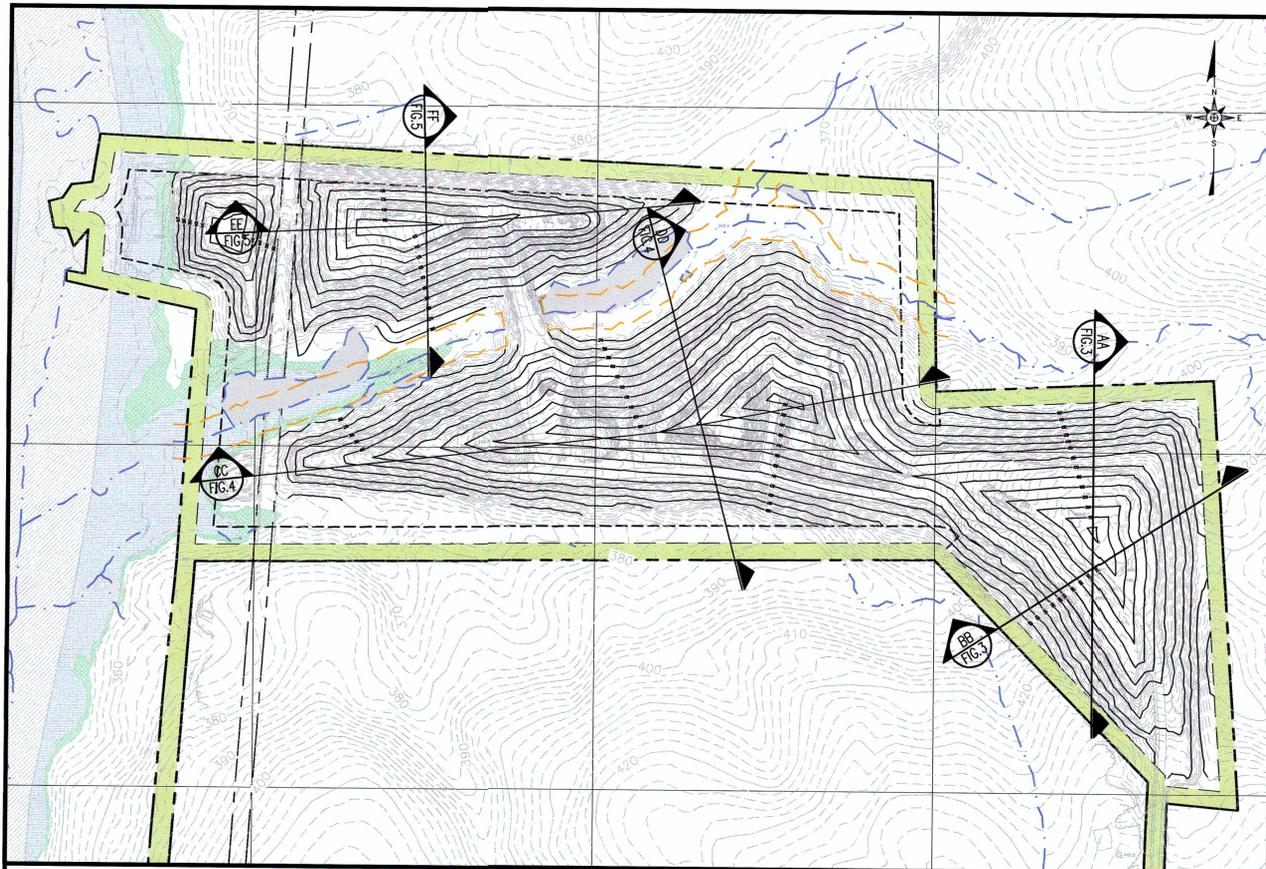
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P.O. BOX 547  
FUQUAY-VARINA, NC 27526

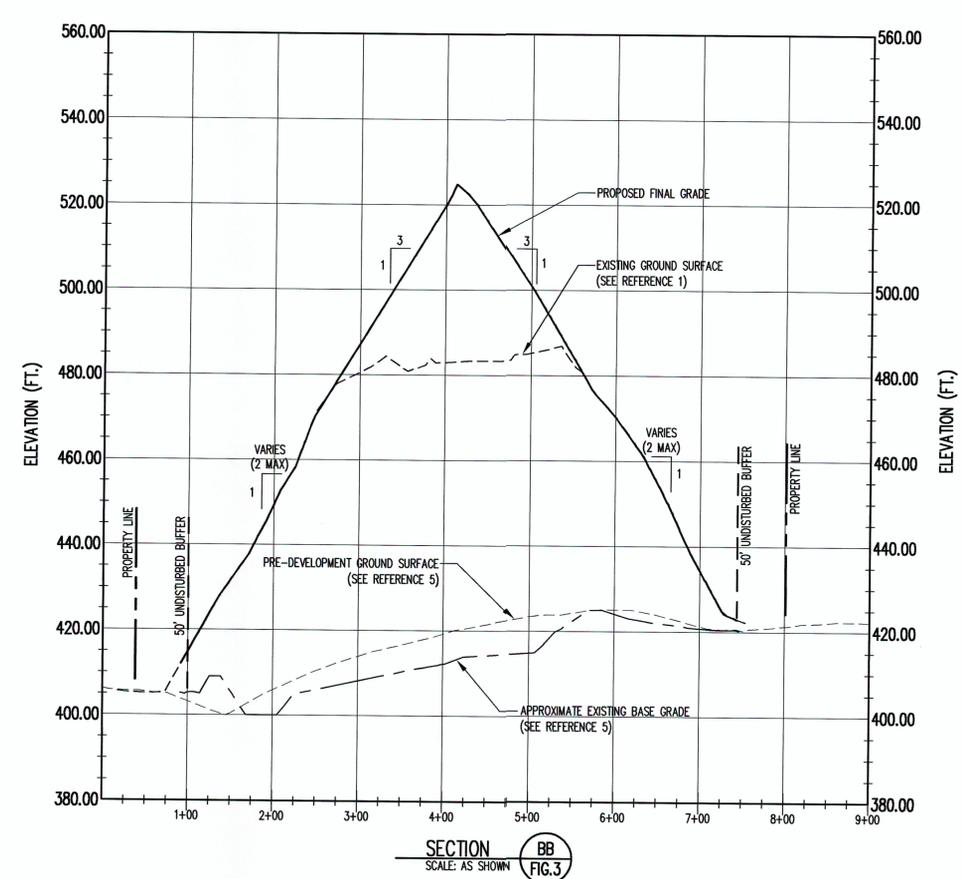
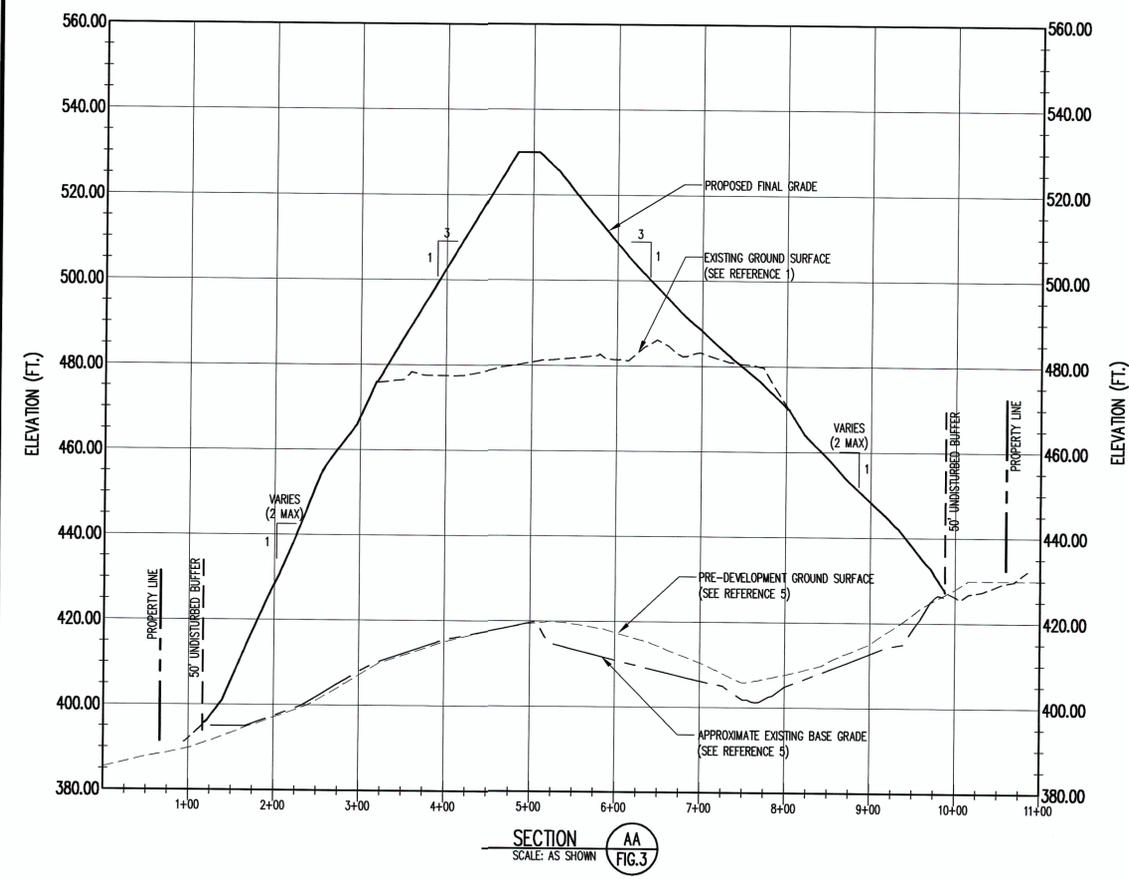
PREPARED BY:  
NC LIC. NO. C-0828 (ENGINEERING)  
**SMITH+  
GARDNER**  
ENGINEERS  
14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



- LEGEND - PLAN**
- 400 — EXISTING 10' CONTOUR (SEE REFERENCE 1)
  - - - EXISTING 2' CONTOUR (SEE REFERENCE 1)
  - - - PROPERTY LINE (SEE REFERENCE 2)
  - █ WAKE COUNTY 50 FOOT UNDISTURBED BUFFER
  - - - 100 FOOT PROPERTY BUFFER
  - - - EASEMENT
  - - - STREAM (SEE REFERENCE 3)
  - █ WETLAND (SEE REFERENCE 3)
  - - - 50 FOOT NEUSE RIVER BASIN BUFFER
  - █ FLOOD ZONE X (0.2% OR 1% (FUTURE))
  - █ FLOOD HAZARD AREAS (1% CHANCE ANNUAL FLOOD)
  - █ FLOODWAY AREAS IN ZONE AE (NO ENCROACHMENT)



**SECTION LOCATION MAP**  
SCALE: 1" = 250'



- LEGEND - PROFILE**
- - - EXISTING GROUND SURFACE (SEE REFERENCE 1)
  - - - PRE-DEVELOPMENT GROUND SURFACE (SEE REFERENCE 5)
  - - - PROPOSED FINAL COVER GRADE
  - - - APPROXIMATE EXISTING BASE GRADE (SEE REFERENCE 5)

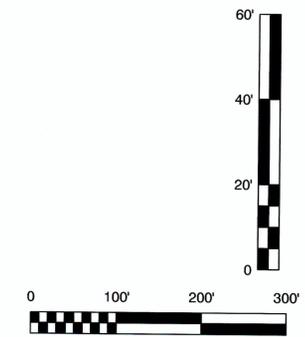
- REFERENCES**
1. TOPOGRAPHY WITHIN THE LIMITS OF THE SUBJECT PROPERTY FROM AERIAL SURVEY DATED MAY 12, 2013, PREPARED BY GEODATA CORPORATION, ZEBULON, NC. TOPOGRAPHY OUTSIDE OF THE SUBJECT PROPERTY BOUNDARY FROM NC DOT GIS DEPARTMENT.
  2. PROPERTY BOUNDARY, SURROUNDING PARCELS, AND WELL/SEPTIC DATA FROM WAKE COUNTY GIS DEPARTMENT.
  3. WETLAND AND STREAM AREAS WITHIN THE LIMITS OF THE SUBJECT PROPERTY PROVIDED BY JOHN TUCKER CONSULTING. STREAM LOCATIONS OUTSIDE OF THE SUBJECT PROPERTY FROM WAKE COUNTY GIS DEPARTMENT.
  4. FLOOD BOUNDARIES FROM FEMA FIRM MAP NUMBER 3720075000A, EFFECTIVE DATE MAY 2, 2006.
  5. PRE-DEVELOPMENT GROUND SURFACE AND BASE GRADES FROM JOHN TUCKER CONSULTING.

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PROJECT TITLE:  
**CURRIN BROTHERS LANDFILL  
SUNSET LAKE ROAD  
LCID LANDFILL &  
RECYCLING FACILITY**

DRAWING TITLE:  
**CROSS SECTIONS  
(SHEET 1 OF 3)**

|                        |                         |
|------------------------|-------------------------|
| DESIGNED: S.A.S.       | PROJECT NO: CURRIN 13-1 |
| DRAWN: J.A.L.          | SCALE: AS SHOWN         |
| APPROVED: [Signature]  | DATE: DEC. 2013         |
| FILENAME: CURRIN-D0005 | DRAWING NUMBER:         |
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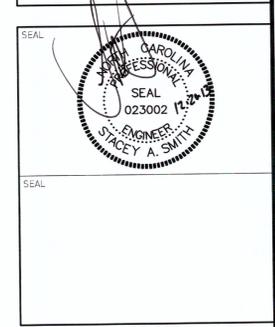


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**CURRIN BROTHERS, INC.**  
 P.O. BOX 547  
 FUQUAY-VARINA, NC 27526

PREPARED BY:  
 NC LIC. NO. C-0828 (ENGINEERING)  
**SMITH+GARDNER**  
 ENGINEERS  
 14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



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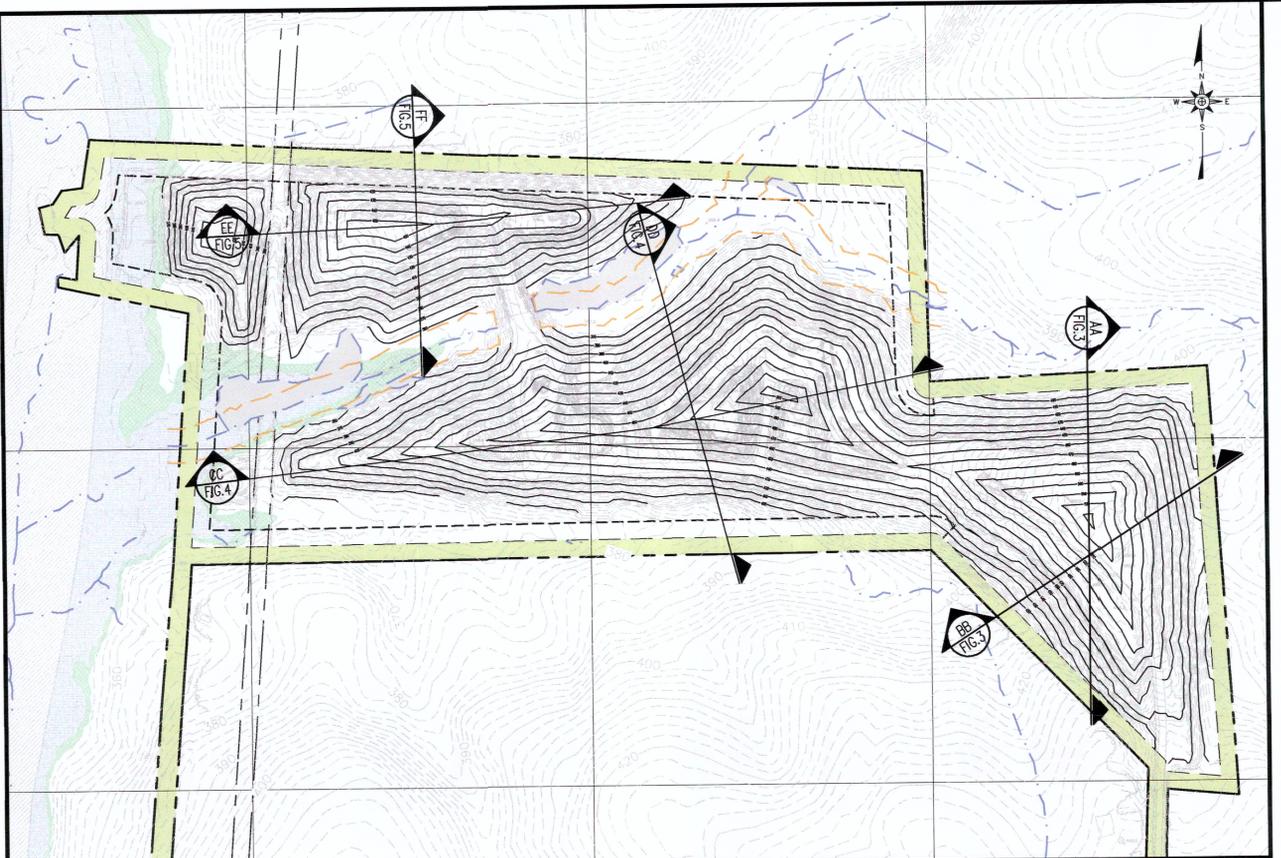
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PROJECT TITLE:  
**CURRIN BROTHERS LANDFILL  
 SUNSET LAKE ROAD  
 LCID LANDFILL &  
 RECYCLING FACILITY**

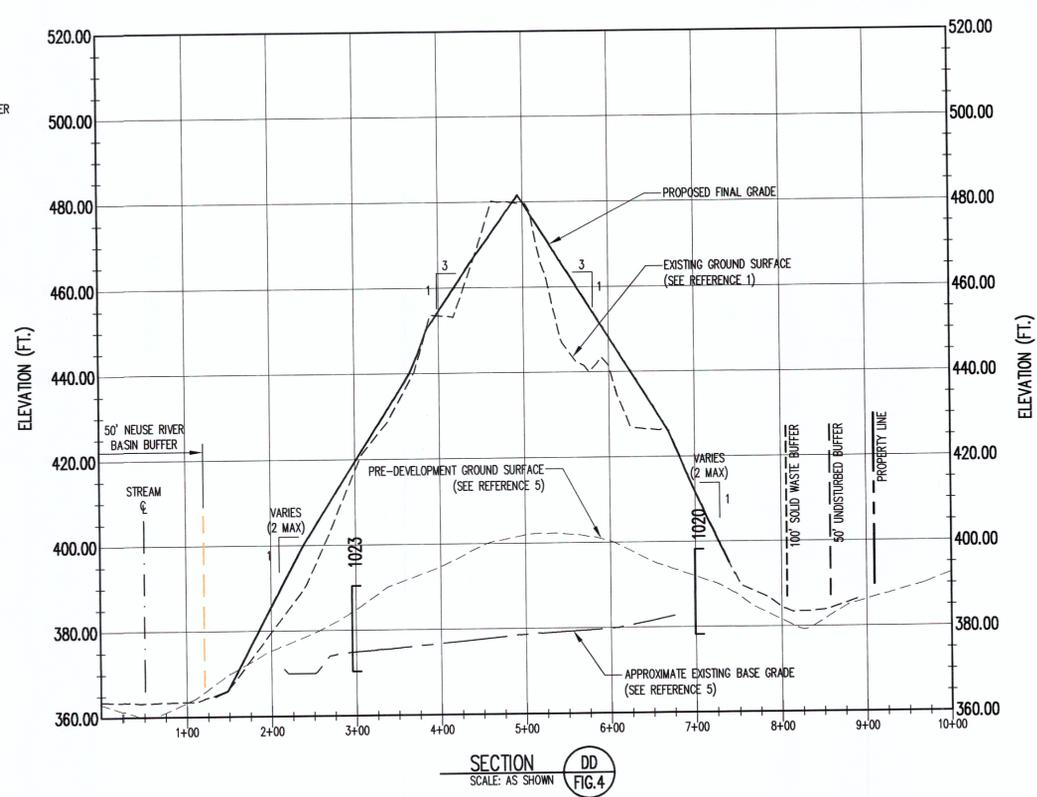
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**CROSS SECTIONS  
 (SHEET 2 OF 3)**

DESIGNED: S.A.S. PROJECT NO: CURRIN 13-1  
 DRAWN: J.A.L. SCALE: AS SHOWN  
 APPROVED: DATE: DEC. 2013  
 FILENAME: CURRIN-D0005  
 SHEET NUMBER: 4 DRAWING NUMBER: X2

- LEGEND - PLAN**
- 400 --- EXISTING 10' CONTOUR (SEE REFERENCE 1)
  - 200 --- EXISTING 2' CONTOUR (SEE REFERENCE 1)
  - PROPERTY LINE (SEE REFERENCE 2)
  - WAKE COUNTY 50 FOOT UNDISTURBED BUFFER
  - 100 FOOT PROPERTY BUFFER
  - EASEMENT
  - STREAM (SEE REFERENCE 3)
  - WETLAND (SEE REFERENCE 3)
  - 50 FOOT NEUSE RIVER BASIN BUFFER
  - FLOOD ZONE X (0.2% OR 1% (FUTURE))
  - FLOOD HAZARD AREAS (1% CHANCE ANNUAL FLOOD)
  - FLOODWAY AREAS IN ZONE AE (NO ENCROACHMENT)



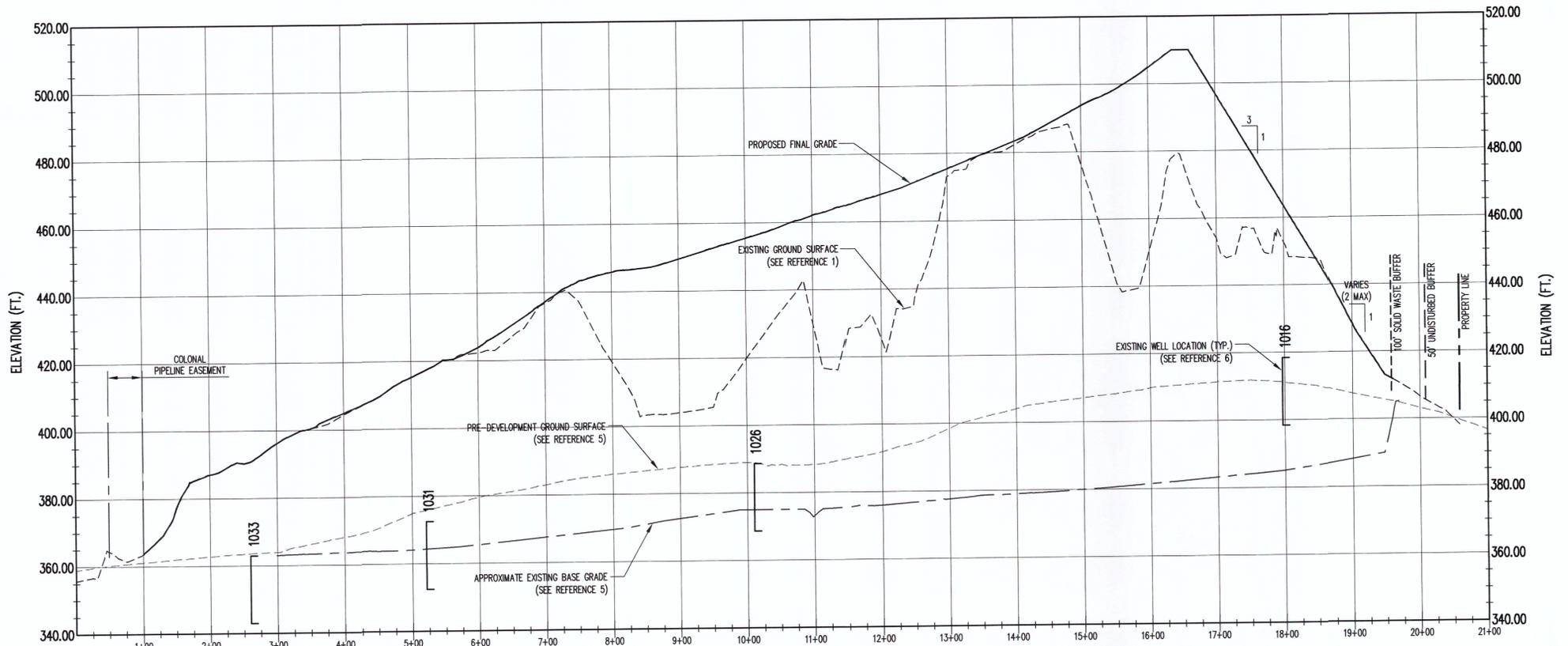
**SECTION LOCATION MAP**  
 SCALE: 1" = 250'



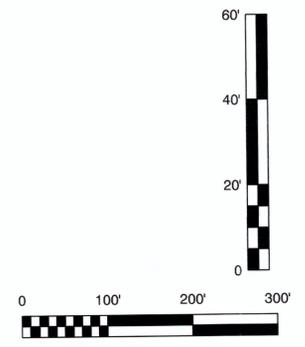
**SECTION DD**  
 SCALE: AS SHOWN  
**FIG.4**

- LEGEND - PROFILE**
- EXISTING GROUND SURFACE (SEE REFERENCE 1)
  - PRE-DEVELOPMENT GROUND SURFACE (SEE REFERENCE 5)
  - PROPOSED FINAL COVER GRADE
  - APPROXIMATE EXISTING BASE GRADE (SEE REFERENCE 5)

- REFERENCES**
1. TOPOGRAPHY WITHIN THE LIMITS OF THE SUBJECT PROPERTY FROM AERIAL SURVEY DATED MAY 12, 2013, PREPARED BY GEODATA CORPORATION, ZEBULON, NC. TOPOGRAPHY OUTSIDE OF THE SUBJECT PROPERTY BOUNDARY FROM NCDOT GIS DEPARTMENT.
  2. PROPERTY BOUNDARY, SURROUNDING PARCELS, AND WELL/SEPTIC DATA FROM WAKE COUNTY GIS DEPARTMENT.
  3. WETLAND AND STREAM AREAS WITHIN THE LIMITS OF THE SUBJECT PROPERTY PROVIDED BY JOHN TUCKER CONSULTING. STREAM LOCATIONS OUTSIDE OF THE SUBJECT PROPERTY FROM WAKE COUNTY GIS DEPARTMENT.
  4. FLOOD BOUNDARIES FROM FEMA FIRM MAP NUMBER 37200750004, EFFECTIVE DATE MAY 2, 2006.
  5. PRE-DEVELOPMENT GROUND SURFACE AND BASE GRADES FROM JOHN TUCKER CONSULTING.
  6. EXISTING WELL, BORING, AND TEST PIT LOCATION PROVIDED BY JOHN TUCKER CONSULTING.



**SECTION CC**  
 SCALE: AS SHOWN  
**FIG.4**

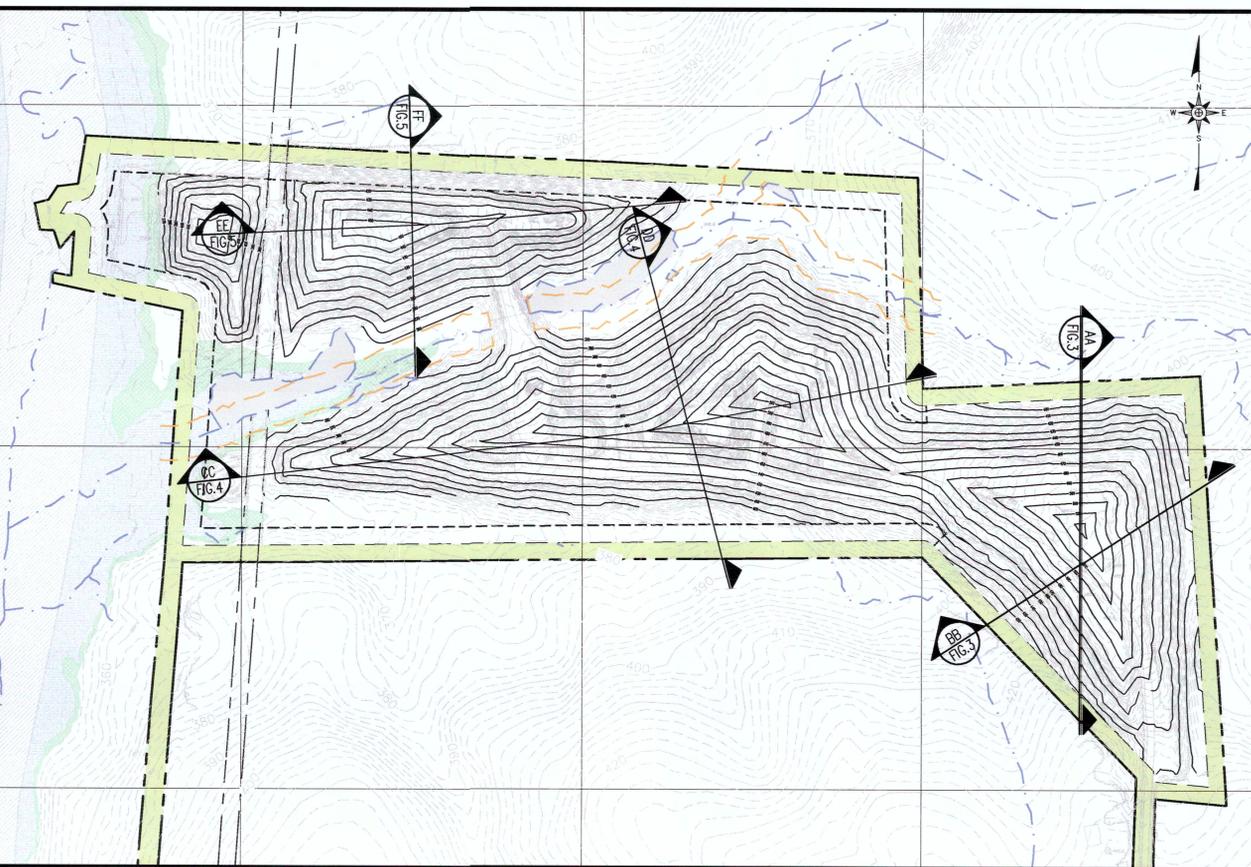


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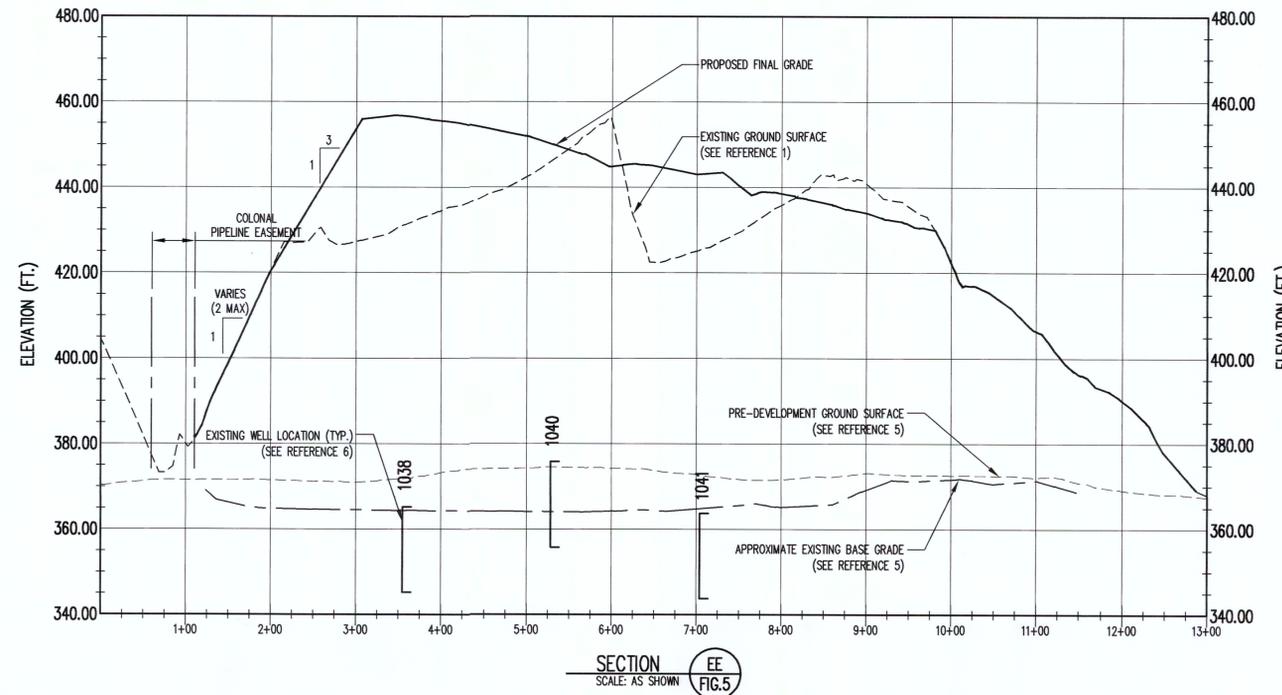
## NOT FOR CONSTRUCTION

PREPARED FOR:  
**CURRIN BROTHERS, INC.**  
 P.O. BOX 547  
 FUQUAY-VARINA, NC 27526

PREPARED BY:  
 NC LIC. NO. C-3628 (ENGINEERING)  
**SMITH+GARDNER**  
 ENGINEERS  
 14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



SECTION LOCATION MAP  
 SCALE: 1" = 250'



SECTION EE  
 SCALE: AS SHOWN  
 FIG. 5

©/CAD/Currin Bros., Inc./Currin 13-1/Sheet/CURRIN-0005.dwg - 12/18/2013 3:25 PM

© 2013 Smith Gardner, Inc.

### LEGEND - PLAN

- 400 — EXISTING 10' CONTOUR (SEE REFERENCE 1)
- 200 — EXISTING 2' CONTOUR (SEE REFERENCE 1)
- - - - - PROPERTY LINE (SEE REFERENCE 2)
- █ WAKE COUNTY 50 FOOT UNDISTURBED BUFFER
- - - - - 100 FOOT PROPERTY BUFFER
- - - - - EASEMENT
- — — — — STREAM (SEE REFERENCE 3)
- ▨ WETLAND (SEE REFERENCE 3)
- - - - - 50 FOOT NEUSE RIVER BASIN BUFFER
- ▨ FLOOD ZONE X (0.2% OR 1% (FUTURE))
- ▨ FLOOD HAZARD AREAS (1% CHANCE ANNUAL FLOOD)
- ▨ FLOODWAY AREAS IN ZONE AE (NO ENCROACHMENT)

### LEGEND - PROFILE

- - - - - EXISTING GROUND SURFACE (SEE REFERENCE 1)
- - - - - PRE-DEVELOPMENT GROUND SURFACE (SEE REFERENCE 5)
- — — — — PROPOSED FINAL COVER GRADE
- - - - - APPROXIMATE EXISTING BASE GRADE (SEE REFERENCE 5)

### REFERENCES

1. TOPOGRAPHY WITHIN THE LIMITS OF THE SUBJECT PROPERTY FROM AERIAL SURVEY DATED MAY 12, 2013, PREPARED BY GEODATA CORPORATION, ZEBULON, NC. TOPOGRAPHY OUTSIDE OF THE SUBJECT PROPERTY BOUNDARY FROM NCDOT GIS DEPARTMENT.
2. PROPERTY BOUNDARY, SURROUNDING PARCELS, AND WELL/SEPTIC DATA FROM WAKE COUNTY GIS DEPARTMENT.
3. WETLAND AND STREAM AREAS WITHIN THE LIMITS OF THE SUBJECT PROPERTY PROVIDED BY JOHN TUCKER CONSULTING. STREAM LOCATIONS OUTSIDE OF THE SUBJECT PROPERTY FROM WAKE COUNTY GIS DEPARTMENT.
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5. PRE-DEVELOPMENT GROUND SURFACE AND BASE GRADES FROM JOHN TUCKER CONSULTING.
6. EXISTING WELL, BORING, AND TEST PIT LOCATION PROVIDED BY JOHN TUCKER CONSULTING.

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PROJECT TITLE:  
**CURRIN BROTHERS LANDFILL  
 SUNSET LAKE ROAD  
 LCID LANDFILL &  
 RECYCLING FACILITY**

DRAWING TITLE:

**CROSS SECTIONS  
 (SHEET 3 OF 3)**

|                          |                            |
|--------------------------|----------------------------|
| DESIGNED:<br>S.A.S.      | PROJECT NO.<br>CURRIN 13-1 |
| DRAWN:<br>J.A.L.         | SCALE:<br>AS SHOWN         |
| APPROVED:<br>            | DATE:<br>DEC. 2013         |
| FILENAME:<br>CURRIN-0005 | DRAWING NUMBER:<br>5       |

**X3**

