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

North CarolinaSolid Waste Groundwater Corrective Action Permit Modification Application

Pursuant to 15A NCAC 13B .1636, "Within 14 days of selecting a remedy, the permittee shall submit an application to modify the permit describing the selected remedy to the Division for evaluation and approval." The application shall include the demonstrations necessary to comply with the financial assurance requirements set forth in Paragraph (d) of Rule .1628.

Please attach the following: (1) a copy of the minutes from the public meeting discussing the Assessment of Corrective Measures, (2) a signed resolution/proclamation/document adopting the remedy, (3) a site map designating locations of groundwater monitoring wells and surface water monitoring locations that will be impacted by the remedy, (4) any draft conceptual schematics/figures/plans relating to the selected remedy, (5) a list of any required registrations, permits, and approvals, (6) a copy of most recent permit issued by the Solid Waste Section, and (7) an amendment to the Financial Assurance Mechanism, including a break-down of the cost estimates for closure, post-closure and corrective action.

Send the application and attachments to NCDENR-DWM, Solid Waste Section, Compliance Unit, 1646 Mail Service Center, Raleigh, NC 27699-1646. This application and any documents attached to this application are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Please type or print all information legibly.

I. Site Identification

Permit Number: 84-01

Solid Waste Rule Designation (.0500 or .1600): .1600

Facility Name: City of Albemarle Landfill

Facility Physical Address: 40592 B Stony Gap Road (SR 1720)

City: Albemarle

Zip: 28002

County: Stanly

Waste Type: Closed MSW

II. Owner and Operator Information

☒ Check box, if owner and operator are the same.

Owner

Name: City of Albemarle (Mike Lambert - Director of Public Works)

Address: 704 Arlington Ave, Albemarle, NC 28002

Phone Number: Office: (704) 984-9667 Scale House: (704) 982-3302

Operator

Name:

Address:

Phone Number:

III. Groundwater Corrective Action

Selected remedy (include addition lines if needed):

(1) Eastern: Monitored Natural Attenuation, Stream Dilution

(2) Western: Purchase property, Phytoremediation (hybrid willow trees)

(3) Additional: Abandon Shop Well, Methane Detection System

Contingency Plan A: Western: Injection of Substrate

Contingency Plan B: Vapor Extraction - Bioventing

IV. Financial Assurance

Financial Assurarance Mechanism: Financial Test

Total Cost Estimate for 30 Years (based upon ACM): $ 500,000.00

V. Project Schedule (upon Division approval)

Approximate Date of Remedy Construction Completion (if applicable): N/A

Approximate Date of Implementation of Remedy: 4/1/2009

Approximate Date of Baseline Sampling Completion (if applicable): 1/1/2011

Approximate Date of First Remedy Performance and Effectiveness Report Submittal: 4/1/2010

VI. Environmental Consultant

Consulting Company: Municipal Engineering Services Company

Address: P.O. BOX 97 Garner, NC 27303

Phone Number: (919) 772-5393

VII. Signatures

To the best of my knowledge, the information reported and statements made in this North Carolina Solid Waste Groundwater Corrective Action Permit Modification Application are true and correct. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of fine and imprisonment.

If Owner and Operator are the same, please sign for Owner and type or write SAME for Operator.

Owner
Owner Name (Printed or Typed): City of Albemarle

Owner Signature: _____ Date: 6-23-2008

Operator
Operator Name (Printed or Typed): City of Albemarle

Operator Signature: _____ Date: 6-23-2008

NC Professional Geologist or NC Professional Engineer
Name (Printed or Typed): ETHAN J. CALDWELL

Signature: _____ Date: 6-26-08

AffixNCProfessional Geologist/Engineer Seal:

NORTH CAROLINA LICENSED SEAL 1931 GEOLOGIST ETHAN J. CALDWELL

Minutes of February 21, 2008
The City of Albemarle, North Carolina
Assessment of Corrective Measures

Meeting called to order at 1:00 pm

The following were present

- Nina Goodwin – City of Albemarle
- Brian Wootton – NCDENR SWS
- Ethan Caldwell – Municipal Engineering Services
- Wayne Sullivan – Municipal Engineering Services
- Mike Lambert – City of Albemarle
- Darren Preslar – City of Albemarle
- Butch Honeycutt – City of Albemarle

Ethan Caldwell summarized the findings of the Assessment of Corrective Measures

- Low level contamination exists under the closed MSW landfill.
- Contamination has not traveled off site.
- The existing non potable water supply well, located at the maintenance shop, is impacted.
- Deep contamination has not been observed.
- The contamination consists of two plumes.
- The eastern plume is actively being controlled under natural conditions.
- The recent identification of the eastern plume can be attributed to lowering of the PQL's.
- There is an offsite migration potential associated with the eastern plume. The property owner was contacted and was reluctant in selling the property.
- The property owner will be contacted again to identify their willingness to sell a portion of the property.
- The most cost effective remediation option of the eastern plume is phytoremediation.
- The most cost effective remediation of the western plume is through natural degradation and stream dilution.

Final selection of remedy will be determined based on implementation schedule, ease of implementation, and financial responsibility. A signed proclamation adopting the remedy will be prepared upon determination of remedy

City of Albemarle
North Carolina

P O Box 190
Albemarle, NC 28002-0190
www.ci.albemarle.nc.us

Office of
Public Works Department
Phone: 704-984-9665
Fax: 704-986-6127

June 23, 2008

RECEIVED
JUN 26 2008
Municipal Engineering Services
Company, PA

Ethan Caldwell
MESCO
P O Box 97
Garner NC 27529

Dear Mr. Caldwell:

Enclosed is the information you emailed to us concerning the City of Albemarle's C&D permit renewal application.

Michael Lambert has signed and dated the last page as directed.

If you need anything else, please email Mike.

Thanks.

Sincerely,

Nina Godwin

Nina Godwin
Asst Public Works Director

Enclosure

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Operator Signature: _____ Date: 6-23-2008

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Name (Printed or Typed): ETHAN J. CALDWELL

Signature: _____ Date: 6-26-08

AffixNCProfessional Geologist/Engineer Seal:

NORTH CAROLINA LICENSED SEAL 1931 GEOLOGIST ETHAN J. CALDWELL

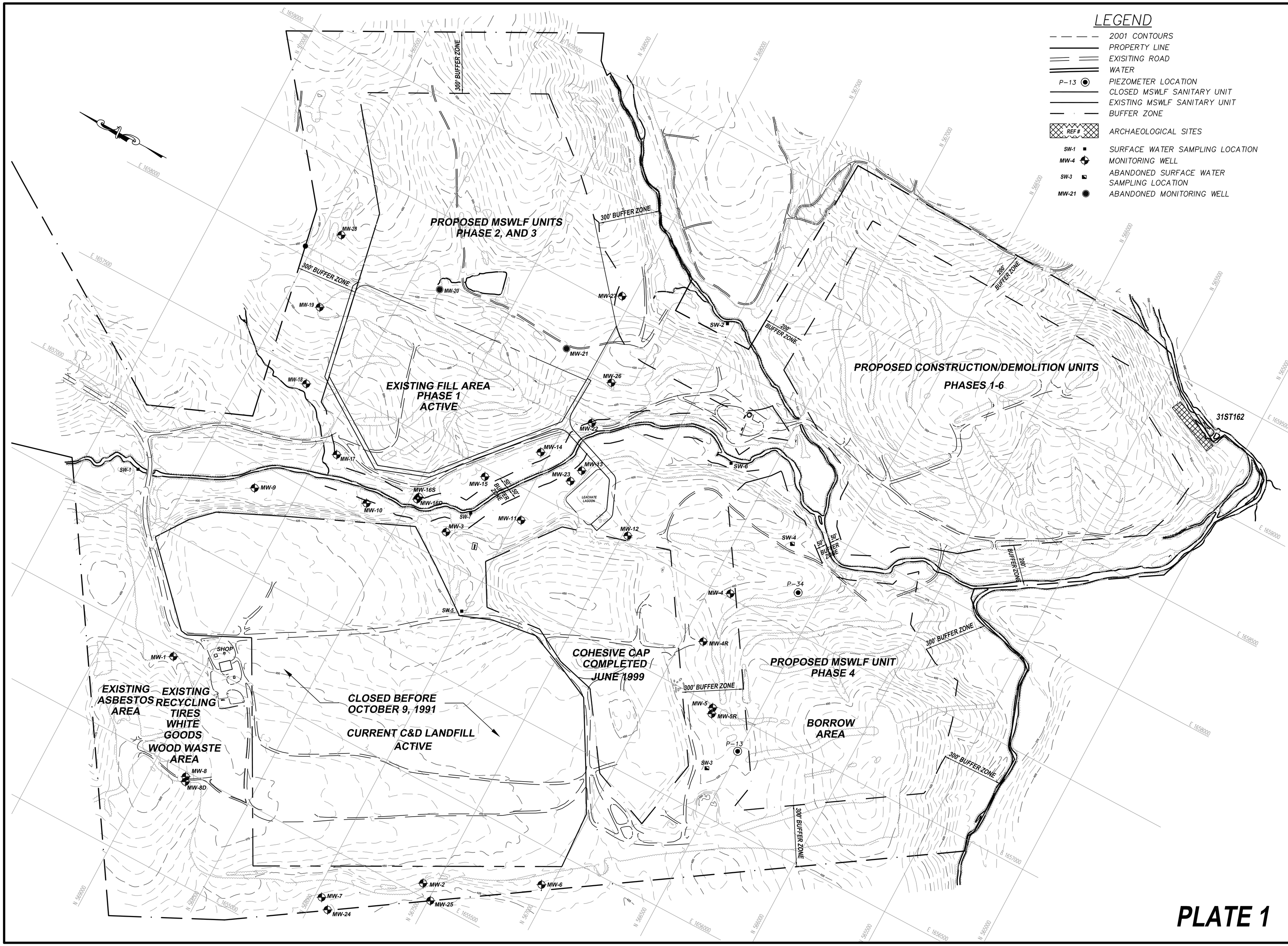

PLATE 1

Municipal Services Engineering Company, P.A.

P.O. BOX 349 BOONE, N.C. 28607 (828) 262-1767

P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393

CLOSED MSWLF AND ACTIVE C&D LANDFILL FACILITY
CITY OF ALBEMARLE
NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION

FACILITY MAP

SCALE:	1"=200'
DATE:	6/30/2008
DRWN. BY:	E. CALDWELL
CHKD. BY:	E. CALDWELL
PROJECT NUMBER	G07059.0
DRAWING NO.	PLATE 1
SHEET NO.	1 of 1

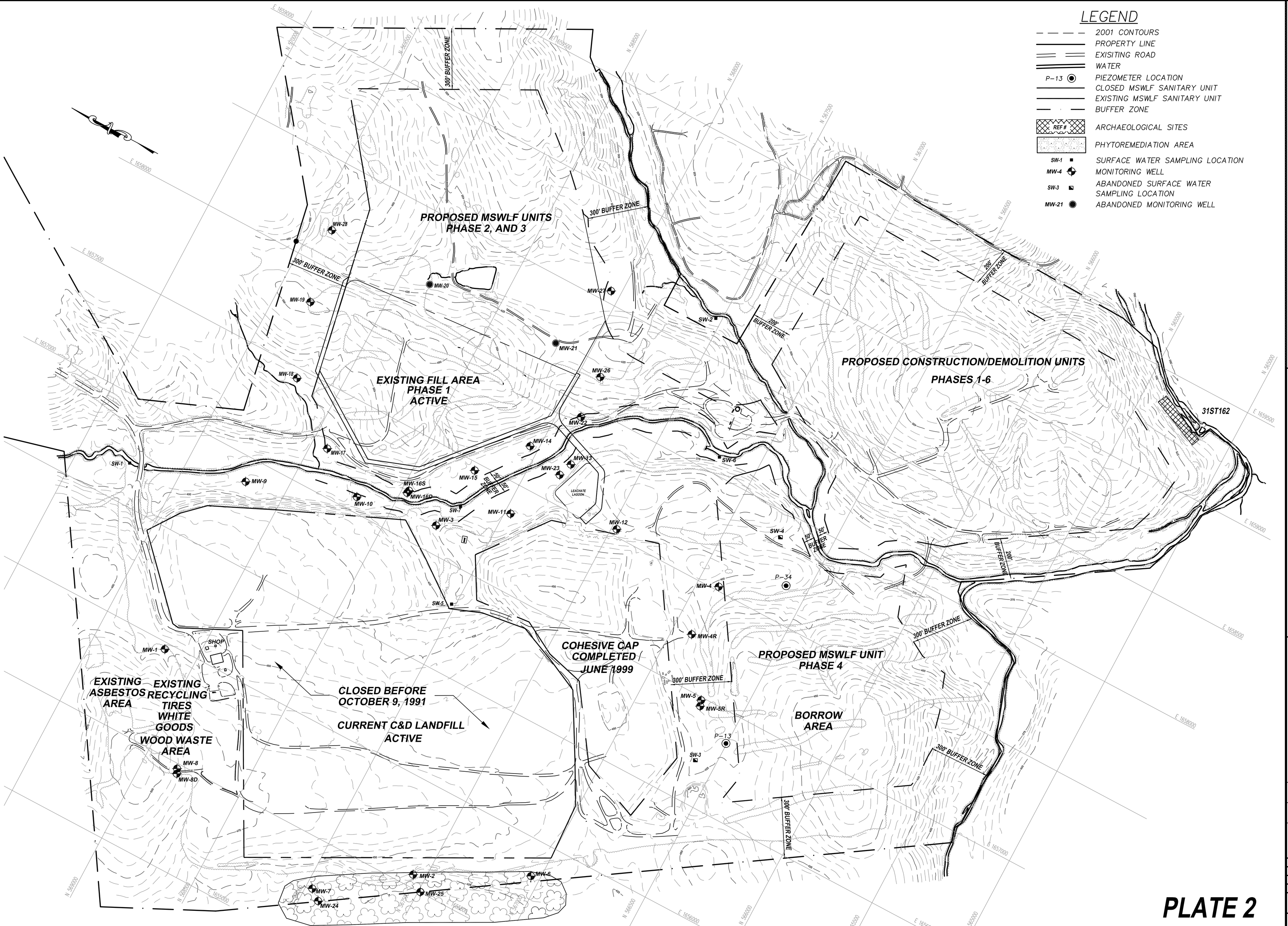

PLATE 2

Municipal Engineering Services Company, P.A.
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393
P.O. BOX 349 BOONE, N.C. 28607 (828) 262-1767

CLOSED MSWLF AND ACTIVE C&D LANDFILL FACILITY
CITY OF ALBEMARLE NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION

PHYTOREMEDIATION AREA

SCALE:	1"=200'
DATE:	6/30/2008
DRWN. BY:	M. GERMAN
CHKD. BY:	E. CALDWELL
PROJECT NUMBER	G07059.0
DRAWING NO.	PLATE 2
SHEET NO.	1 of 1