OF
32-04-YW
City of Durham

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

November 26, 1991

Ms. Nancy Clayton
Solid Waste Process Engineer
City of Durham
101 City Hall Plaza
Durham, North Carolina 27701

RE: Durham Yard Waste Facility, City of Durham Landfill,
S.R. 1636, East Club Blvd., North Carolina,
Permit No. 32-04-YW

Dear Nancy,

The enclosed permit for the referenced facility is approved in accordance with 15A NCAC 13B. This facility is to be operated in accordance with .0904 of the Solid Waste Management Rules.

Please note general condition no. 1 which states that this facility, which is located at the landfill, is only permitted to receive "Yard Waste" as defined in 15A NCAC 13B (65), defined as stumps, limbs, leaves, grass, and <u>untreated</u> wood wastes.

Durham County should be commended for its approach to handling yard waste. We enthusiastically support recycling efforts such as yours, and are hopeful that other communities will follow suit. If you have any questions, please contact our office at (919)733-0692.

Sincerely,

Suzanne Molloy

Suzanne Molloy
Environmental Engineer
Solid Waste Section

ENCLOSURES

cc: Mark Fry
Terry Dover

An Equal Opportunity Affirmative Action Employer

AMENDMENT TO PERMIT NO. 32-04
NOVEMBER 26, 1991

STATE OF NORTH CAROLINA

DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES

DIVISION OF SOLID WASTE MANAGEMENT

P. O. BOX 27687 RALEIGH, NC 27611-7687

S O L I D W A S T E P E R M I T

Durham

is hereby issued a to permit to operate a

Yard Waste Facility

located

S. R. 1636, East Club Blvd., Durham,
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.

James C. Coffey
James C. Coffey
Permitting Branch
Solid Waste Section

Permit No. 32-04-YW
Date issued 11/26/91

S O L I D W A S T E P E R M I T

YARD WASTE FACILITY

CONDITIONS OF PERMIT

GENERAL

1. This facility is permitted to receive "Yard Waste" as defined in 15A NCAC 13B .0100(65) which includes stumps, limbs, leaves, grass, and untreated wood.

2. The facility shall be operated in a manner so as to prevent the creation of a nuisance, potential health hazard, or potential fire hazard.

3. This facility shall conform to operating procedures in Rule .0904 of the Solid Waste Management Rules and the following specific conditions shall be met:

   a. Site preparation shall be in accordance with the site plan.
   b. The permit number and the words "Yard Waste Only" shall be posted on an entrance sign to the designated areas.
   c. Signs shall be provided stating owner, operator, contact person and number in case of emergency, and hours of operation.
   d. Open burning of solid waste shall be prohibited.
   e. If solid waste other than yard waste is left at the facility, it shall be separated and shall be removed within 7 days.
   f. Appropriate litter control measures shall be provided within the area to confine material subject to be blown by the wind. At the conclusion of each day of operation, all windblown material resulting from the operation shall be collected and properly disposed of by the owner or operator.
   g. Yard waste must be removed from containers prior to composting or mulching, unless, the bags, or another material has been approved by the Section. All containers must be properly disposed .
   h. Additional conditions and revisions of the approved plans shall be approved by the North Carolina Solid Waste Section.

4. This permit is issued for five years. Ninety days prior to the expiration date of this permit, the operator must notify the Solid Waste Section.

   Modifications, where necessary, shall be required in

accordance with Rules in effect at the time of review.

5. Based on operating performance, the Conditions of Permit for this facility may be subject to revision.

6. Any water which comes in contact with solid waste shall be contained on-site or properly treated prior to discharge.

7. As necessary, effective vector control measures shall be applied to control flies, rodents, insects, or vermin.

8. Fires and non-conforming waste incidents shall be reported to the Division (Regional Waste Management Specialist) within 24 hours, and a written notification submitted within 15 days.

9. All sedimentation/erosion control activities will be conducted in accordance with the Sedimentation Control Act (15A NCAC 4).

11/26/91

YARD WASTE COMPOSTING FOR THE CITY OF DURHAM, NORTH CAROLINA

Permit No 32-04-YW

The City of Durham, North Carolina plans to begin operation of a yard waste composting facility in January, 1992. This facility will be receiving yard waste that is collected by City personnel separately from the regular solid waste and yard waste that may be brought in by private citizens. This yard waste is expected to consist of leaves, grass clippings, stems, pruning materials, and small brush.

Each load will be weighed at the scalehouse as it is brought into the landfill. The scalehouse is at the only entrance to the landfill. The compost area is on property that adjoins the landfill and has no other access other than from the landfill. Signs will be posted with the City of Durham shown as owner and operator. The contact person, phone number and hours of operation, 7:30 a.m. to 4:30 p.m., Monday through Saturday will also be displayed on the sign.

Dust control will be provided by the use of a water truck to spray and moisten dry areas. Landfill litter control crews will also be providing service on the compost site.

Fire protection and control measures will be include: (1) having a fire extinguisher on the site and (2) Fire Department Station # Nine, across from the landfill entrance, on call. The windrows will be spaced far enough apart (twenty feet) to allow access for fire vehicles and other equipment.

Odor control measures and practices will consist of turning the waste with grass included within 48 hours. All windrows will be turned at least monthly. If odor becomes a problem, more frequent turnings will be performed. Regular temperature checks will also serve as an indicator for the frequency of turning.

This facility is designed to handle 30,000 cubic yards of incoming yard waste per year. Since this is the first year of operation, the exact amount of yard waste that may be collected is unknown. The estimate above is based on percentages of yard waste that were measured in a waste characterization study done at the landfill in 1990 by SCS Engineers.

It is assumed that the composting time will be approximately six to nine months, no longer than a year, from the reception of the waste materials until the cured compost is distributed.

The yard waste material will be received and formed into static windrows of from 8 to 10 feet high and 10 to 15 feet wide. The

windrows will be at least twenty feet apart.

Personnel and their responsibilities will consist of an operator, who is responsible for checking the windrow internal temperatures, moving large brush, forming windrows, turning the windrows, loading the yard debris for movement from receiving center to compost area. Three employees will be available to receive the yard waste from City trucks and from the public. Large brush that can be chipped will be separated from the waste to be composted. The landfill supervisor will be responsible for overlooking the compost operation also.

The site will be located on property that adjoins the sanitary landfill. This property has been approved for a soil borrow area and an erosion control plan has already been prepared and approved for this site. Soil has been removed from this area to the proposed contours. A gravel road will provide access for the loader and tandem dump truck.

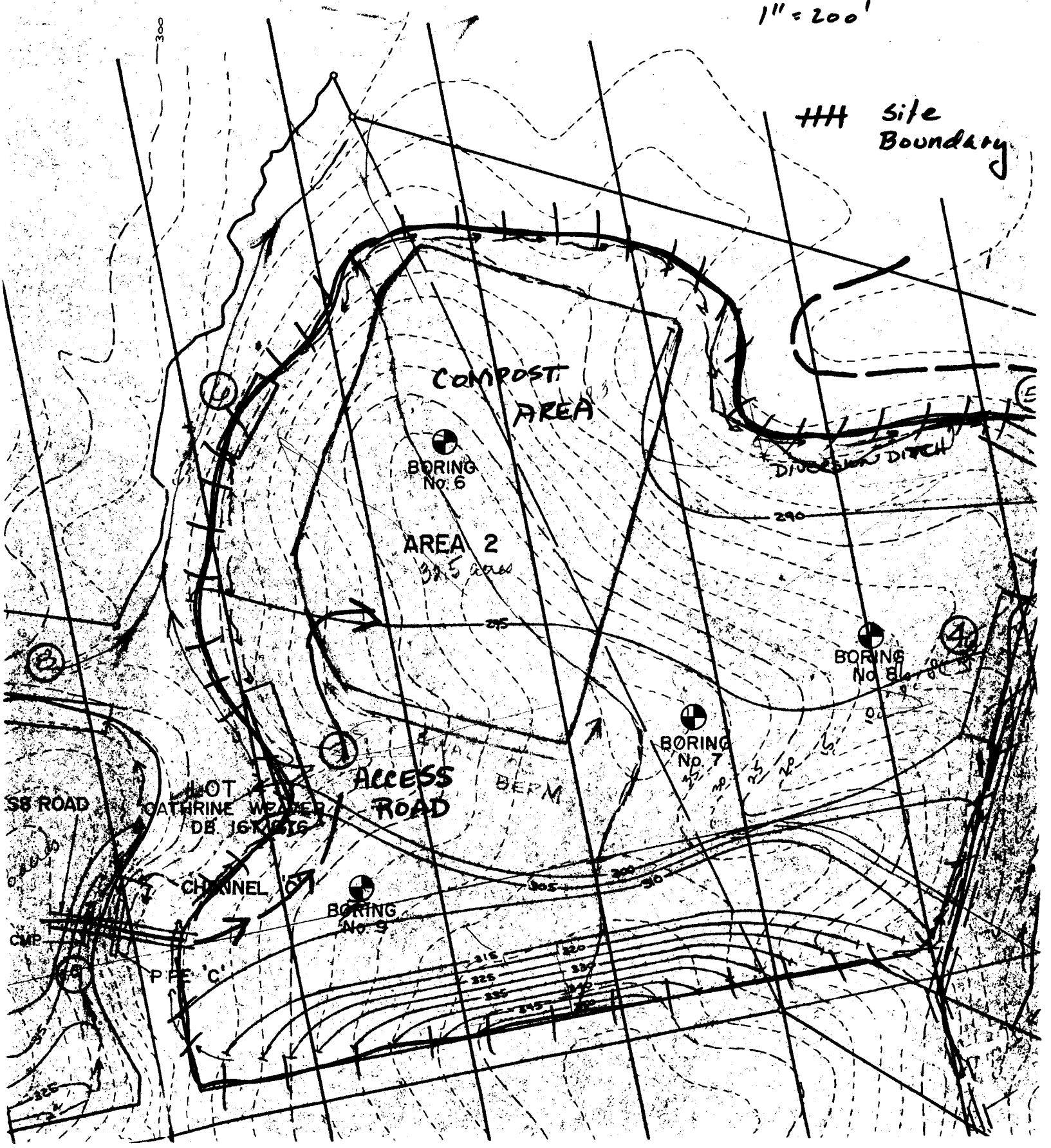
The compost pad will be constructed of existing soil, compacted. A visual inspection and analysis by a representative of the local agricultural extension service determined that the soil is a loam and that the high water table is not within two feet of the compost pad and storage area (see attachment).

Each operational day, yard waste will be collected separately by City yard waste collection crews. These crews will debag the waste as it is collected so that all waste delivered to the landfill is prepared for processing. The waste will be weighed at the scalehouse and emptied at a receiving site that is nearer the entrance of the landfill. Large brush that can be chipped will be separated from the waste to be composted. A tandem dump truck will carry the compostable materials to the compost pad. The materials will then be formed into windrows by a front end loader. The oldest windrows will be moved down line with the newest windrows closest to the unloading area.

The compost area is sited in the approved borrow area for the landfill. The needed cover soil has been removed and the area graded according to approved plans. The sedimentation basins are in place with riser/barrel outlets. All surface water is directed into these basins. If a filter trench is needed ,one will be installed.

CITY OF DURHAM
YARD WASTE COMPOST SITE

1" = 200'



CITY OF DURHAM
NORTH CAROLINA

CITY OF MEDICINE

DEPARTMENT OF SANITATION
(919) 560-4185

SOLID WASTE SECTION
NOV 1 1991

November 6, 1991

Ms. Suzanne Molloy
Solid Waste Section
North Carolina Department of Environment
Health and Natural Resources
Post Office Box 27687
Raleigh, North Carolina 27611-7687

Dear Ms. Molloy:

Enclosed please find the City of Durham's Yard Waste Compost Facility application. Tax maps, topo maps and drawings have been included to demonstrate the location of the yard waste compost transfer area and compost pad. The compost pad is located on the landfill borrow area that has had a soil and erosion control plan approved. No additional grading other than a diversion berm or swale is to be done on this site, therefore an erosion control plan has not been included.

This facility is a new one for the City and the operational details described are preliminary. Once some experience with this process has been gained, it will be easier to determine the quantity of waste that will need to be composted. Dr. Carl Matyac, Associate Agricultural Extension Agent, has agreed to provide assistance with the composting process and with suggestions for product use.

The City is planning to start separate yard waste collection in January, 1992 so it is hoped that the facility would be begin operation at that time. If you have any questions or need additional information, please let me know immediately. Thank you for your assistance with this application.

Sincerely,

Nancy Lee Clayton

Nancy Lee Clayton, P.E.
Solid Waste Process Engineer

Enclosures

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

AGRICULTURAL
EXTENSION
SERVICE

North Carolina State University
College of Agriculture and Life Sciences

Address reply to:
County Extension Office

721 Foster Street
Durham, North Carolina 27701
November 4, 1991

SOLID WASTE SECTION
NOV 1 4 1991

Nancy Clayton
City of Durham Sanitation Dept.
101 City Hall Plaze
Durham, N.C. 27701

Dear Ms. Clayton:

I visited the Durham City Landfill at 2115 E. Club Blvd. on October 30, 1991 for the purpose fo evaluating the soil at the proposed composting site.

A pit was dug approximately 4 feet deep. I collected soil samples from the bottom and sides of the pit for textural classification and for evidence of water table levels. I determined that the sample was a loam soil. This was confirmed by Mr. Eddie Culberson of the Soil and Water Conservation Service.

There was no evidence that the water table was present or had ever been present at the bottom of the pit.

I am looking forward to working with you on this project.

Sincerely,

Carl Matyac

Carl A. Matyac, Ph.D.
Assoc. Agricultural Ext. Agent