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Lee Co. 53-03

53-03 1992

53-03

Application for Permit
to Open Compost
Facility

Approved 7/2/92



020 GP
CITY OF SANFORD
ENGINEERING

MAR 09 1992

State of North Carolina
Department of Environment, Health, and Natural Resources
Raleigh Regional Office

RECEIVED

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

Edmond John Maguire
Regional Manager

DIVISION OF LAND RESOURCES

March 6, 1992

APPROVED
SOLID & HAZARDOUS WASTE MGMT. BRANCH
DATE APPROVED 3/7/92

City of Sanford
PO Box 338
Sanford, NC 27330
ATTN: Victor I. Czar

RE: Letter of Approval
Project Name: Compost Facility
Location: Lee County
Submitted by: City of Sanford
Date Received: 2-28-92
Date Processing Initiated: 2-28-92
New Submittal (X) Revised ()

Dear Mr. Czar:

This office has reviewed the subject Erosion and Sedimentation Control Plan. We find the plan to be acceptable and hereby issue this letter of approval. If any modifications, performance reservations, or recommendations are applicable, a list is enclosed and is incorporated as a part of this letter of approval. If any modifications are not incorporated into the plan and implemented in the field, the site will be in violation of the Sedimentation Pollution Control Act of 1973 (NCGS 113A-61.1).

Please be advised that Title 15A, North Carolina Administrative Code, 4B.0018(a) requires that a copy of the approved plan be on file at the job site. Also, please consider this letter as notice in accordance with the requirements of North Carolina General Statute (hereinafter NCGS) 113A-61.1 concerning our right to perform periodic inspections to ensure compliance with the approved plan.

North Carolina's sedimentation pollution control program is performance oriented, requiring protection of the natural resources and adjoining properties. If at any time during this project it is determined that the Erosion and Sedimentation Control Plan is inadequate to meet the requirements of the Sedimentation Pollution Control Act of 1973 (NCGS 113A-51 through 66), this office may require revisions in the plan and its implementation to ensure compliance with the Act.

Mr. Czar
March 6, 1992
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Please note that this approval is based in part on the accuracy of the information provided concerning financial responsibility. You are requested to file an amended Financial Responsibility Form if any changes become necessary. In addition, it would be helpful if you would notify this office of the proposed starting date for the activity at the subject site.

Your cooperation is appreciated and we look forward to working with you on this project. If there are any questions, please do not hesitate to contact this office.

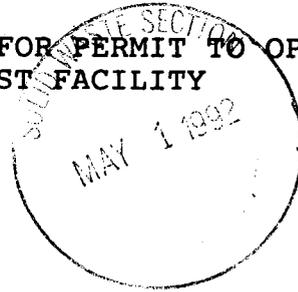
Sincerely,



Tim Holland
Assistant Regional Engineer
Land Quality Section
Raleigh Regional Office

TH/gb

APPLICATION FOR PERMIT TO OPEN
COMPOST FACILITY



CITY OF SANFORD
SANFORD, NORTH CAROLINA

VICTOR I. CZAR

April 27, 1992

APPROVED
SOLID & HAZARDOUS WASTE MGMT. BRANCH
DATE APPROVED 7/2/92

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COMPOST FACILITY

The City of Sanford is proposing to permit and operate a compost facility to recycle residential yard waste, limbs and leaves, in order to produce compost and wood particles suitable for use in other areas of the community as part of the City's recycling efforts. The compostable materials will be gathered by City crews from curbside pickup throughout the city and by local contractors. Based on historical data, it is anticipated that 1,700 tons of limbs and 10,000 cubic yards of leaves will be processed annually. With the City's growth due to annexation, an increase in volume can be expected, however, the ratio of limbs to leaves should remain approximately the same. An example of this would be the anticipated annexation of approximately 2,200 acres and 500 households in 1992 which would add 100 tons of limbs and 80 tons of leaves annually.

The Compost Facility will be located on approximately 55 acres of property located in northeast Sanford and adjoining the City's Public Works Service Center (PWSC).

The City's PWSC is the location of the City's garage, water and sewer construction and maintenance, street department, horticulture, refuse department, equipment, and personnel. Locating the compost facility near the PWSC gives the City the advantage of retaining all of the operational activities of the Public Works in one area. It will also be located only one-half mile from the City's Central Fire Station which will provide minimal response time in case of an emergency. The property is

located in an undeveloped, heavily wooded area of Sanford. The surrounding properties are undeveloped and heavily wooded with the exception of one residential property bordering the site.

Buffer zones of a minimum of 200 feet will be provided from all residences, a minimum of 100 feet from the northern most property line and a minimum of 50 feet from all other property lines. These buffer zones will not be cleared of the existing trees and underbrush, providing a natural barrier to unauthorized entry and dumping along the northern, eastern and western boundaries of the property. In order to comply with zoning requirements, the entire boundary of the compost facility will be fenced, with a gate provided at the Fifth Street entrance. This will be the only entrance to the site, and it will be opened during regular operating hours and locked at all other times. The natural barriers in conjunction with the proposed fencing will be utilized as an attempt to control unauthorized entry and dumping.

Signs will be posted at the entrance to the site and at locations as shown on the attached site plan. The signs will include the following information (see attachment for sign design):

- a. Name of owner
- b. Name of the operator
- c. Person to contact
- d. Phone number for emergency contact
- e. Hours the facility will be open for operation

Dust control will be provided by the City of Sanford utilizing a City water truck. The site will be "watered down" during dry

periods and at times when dust is evident. It will be the responsibility of the City to determine when a dust problem exists and provide the appropriate dust control.

The facility will handle limbs and leaves collected by City crews during their curbside pickups, and material cut by local contractors. The City's pickup procedure provides the means to control the materials handled at the site. Limbs and leaves contaminated with any foreign materials will not be picked up by the City. Material from contractors will be inspected as it arrives by the City employee on the site. Material contaminated with materials other than limbs or leaves will not be allowed on the site. Refusing to collect contaminated leaves and limbs will help to reduce litter on the site. The City's Refuse Department will be responsible for immediately collecting any litter which is observed on the site.

Every effort will be made to control possible odors. The site is located in a scarcely populated area and required buffers will be provided. This combination of provisions will help to reduce the concern about odors for residents of the area. Additionally, in an effort to eliminate odors, nitrogen bearing waste shall be incorporated into windrows as soon as possible after arriving at the site, but in no case shall it take longer than 48 hours to incorporate these wastes into the windrows.

The City's 55 acre tract is located in the city limits at the northern terminus of Fifth Street adjacent to the existing Service Center area. On this tract, 16 acres will be reserved for the

windrowing of leaves. Assuming that approximately 3,000 cubic yards of material can be composted on an acre of property, the design capacity of the facility is 48,000 cubic yards. Limbs will be stockpiled (see attached site plan), ground and stored in an area of six acres on the tract. This material will be ground by a rented tub grinder on a semi-annual basis and the material stored until it can be sold for a fuel to local industries or as landscaping materials. It is anticipated that, after this material is ground, it will be disposed of quickly with little to no change in the market. The ground materials will be sold in bulk deposited directly into trucks whenever possible to reduce handling costs and encourage immediate removal of the product.

The anticipated time required for composting leaves is one year. The windrows will be turned a minimum of once every three months with a front end loader which will be located at the site. Distribution of the product may require as long as three to six months. The product will be available to residences, landscaping companies, the City-owned golf course, the City's Horticulture Department, and local DOT maintenance operations for landscaping purposes.

Typical windrow construction will be piles, approximately six to eight feet high and twelve to fourteen feet wide at the base of the windrow. Windrows will run parallel to the existing slope of the site. An access road approximately fourteen feet wide, will be located between piles to be used in placing and turning the windrows (see attachment).

When the compost facility is open, an employee will be required to operate and maintain the facility. He/she will be required to prepare the documentation required at the facility, i.e, logging the trucks dumping, number of loads, volume and possible weight of material, type of material, origin of material and inspection of the material to insure that the City is receiving only limbs and leaves. Daily duties will include but will not be limited to; maintenance of the drainage ditches, turning of the windrows, temperature monitoring, dust control, stockpiling of limbs, organization and placement of materials from the tub grinder, documentation of individual removing material from the site, volume of material, and any related duties that may be required to operate and maintain a safe, clean, and efficient facility.

Soils on the site are of Mayoden classification with a slope classification of B to D. Mayoden soils are fine, sandy loams and are characterized as being well drained. Slopes in these areas range from two to fifteen percent. The characteristics of this soil, combined with the slopes at the site, will require the use of drainage swales and other drainage measures (see attached site plan) to control runoff from both on and off site. Existing drainage ways will be grassed so that runoff will be sent through a grassed drainage swale prior to leaving the site. The fairly steep slopes of the site will promote quick runoff of storm water and any possible leachate from the site, minimizing the possibility of any discharges infiltrating into the soil.

The composting pad will be cleared of all trees, vegetation and top soil; then gravel access roads will be provided between the windrows. The windrows themselves will be placed on native soils. Depth to ground water, according to the Soil Conservation Service soils maps, is in excess of six feet. Five holes, each approximately five feet deep, were dug on the site (see attached plan sheet for location) and allowed to stand for two weeks with no ground water observed.

Operational Plan

Operation to Begin Fall 1992

Employee Responsibility

- A.
1. Check drainage control devices after major rainfall event and perform any necessary maintenance but in no case will checks be performed at intervals greater than 30 days.
 2. Remove trash and other litter from site.
 3. Rearrange and restack any compost as required.
 4. Log incoming and outgoing loads (recording all necessary information)
 5. Inspection of incoming waste will be performed at the site by the individual working at the site. Any contaminated waste will not be accepted.
 6. Incoming material will be documented on a cubic-yard basis. It will be the responsibility of the party dumping at the site to provide the volume of the vehicle carrying the debris and from this volume an estimate will be made of the volume of material to be deposited.
 7. Stack compost from staging area to final rows as necessary.
 8. Organize and clean limb storage area.

Equipment Required on Site and It's Use

- B.
1. Front end loader to move compost from staging area, place in windrows, turn windrows, load composted material to leave site.
 2. Rent a tub grinder semiannually to grind limbs.
 3. A two and one-half ton dump truck to be used in removal of compost.

Individual Responsible for Facility

- C. Refuse Superintendent

Access and Material Controls

- D. Entrance onto the site will be allowed through one main gate

- only. A small building (approximately 12 feet by 12 feet) will be provided at the entrance for use as an office. The individual working at the site will be responsible for controlling the incoming vehicles, rejecting unacceptable material, and escorting vehicles to the appropriate area for dumping, depending on the type of material being hauled.
- E. Compostable materials (i.e. leaves) will be dumped in the appropriate windrows whenever possible. When it is impractical to dump in windrows, compostable materials will first be dumped in the staging area and then moved by a front end loader from the staging area to the appropriate window. Records will be kept documenting the time on site, location on site, turning frequency, and temperature monitoring. The material will be composted for a minimum of one-year, being turned with the loader a minimum of once every three months. Limbs will be dumped in the limb stockpile area until they are ground through a tub-grinder, which will be rented a minimum of twice a year. After being run through a tub grinder, the material will be stockpiled in the designated area and be immediately available for sale to local companies as fuel and also as a landscaping material. The material will be loaded directly into vehicles to be removed from the site as often as is possible. Materials will be loaded for those picking up the compost or wood products, and may be delivered to City residents for a reasonable fee.
- F. Leachate and site runoff will be directed to a grassed drainage swale by drainage ditches constructed parallel to each windrow and roadway. These ditches will be maintained on a daily basis to provide proper drainage. (See attached detail)
- G. Compost will be available to local residents, landscapers, the municipal golf course, local DOT maintenance projects and the City's Horticulture Department.
- H. The municipal golf course, city crews and DOT projects will accept a variety of quality in the product.
- I. First material should be available for distribution by November 1993.
- J. Sale of material will be handled by the Revenue Office of the City. The customer will go to the Revenue Office, pay for material and receive a receipt. The receipt book will have terms such as to protect the City of any liability. The receipt should be retained by the customer and brought to the Compost Facility as proof of payment for materials requested. The City will produce a fee chart including the process for procuring compost and mulch and will use it for advertising in the local paper.

CITY OF SANFORD MUNICIPAL COMPOST FACILITY

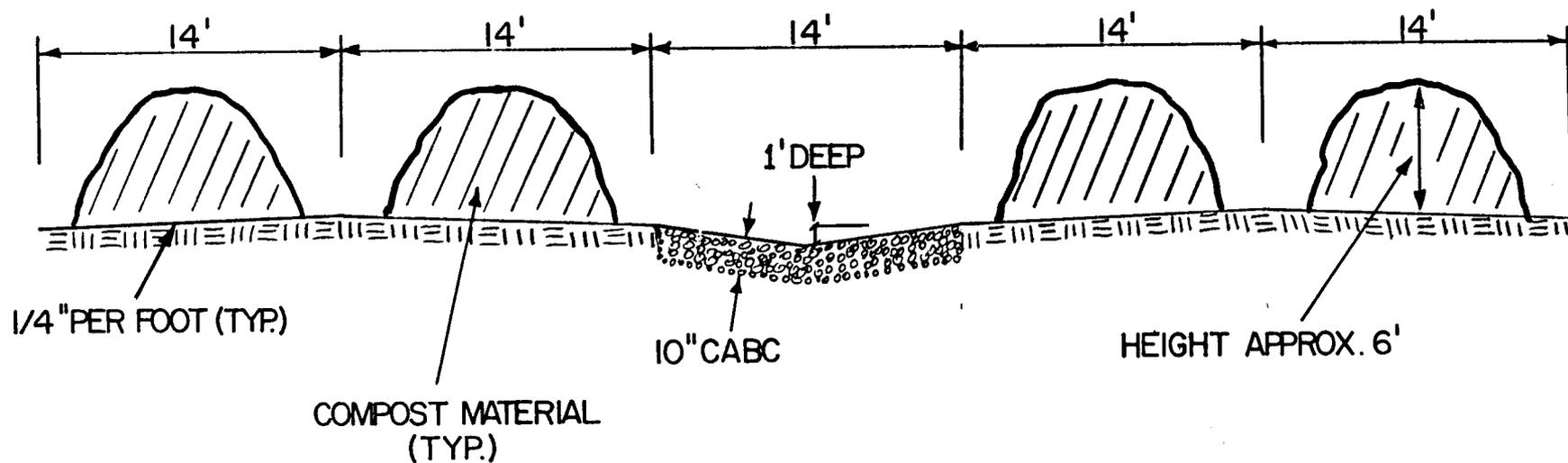
Owner/Operator: CITY OF SANFORD

In case of emergency: 775-8247
Larry Craig, REFUSE SUPERINTENDENT

OPERATING HOURS: MONDAY - FRIDAY
8:00 A.M. - 5:00 P.M.

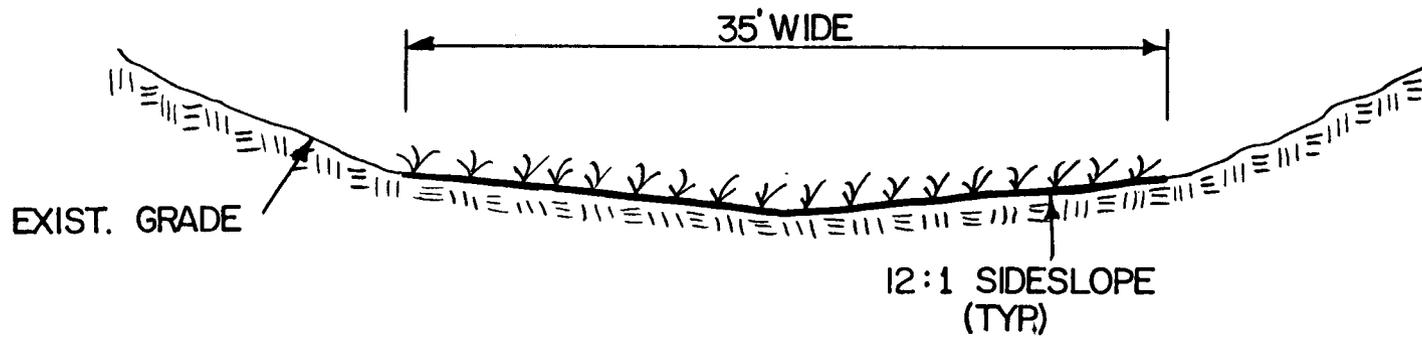
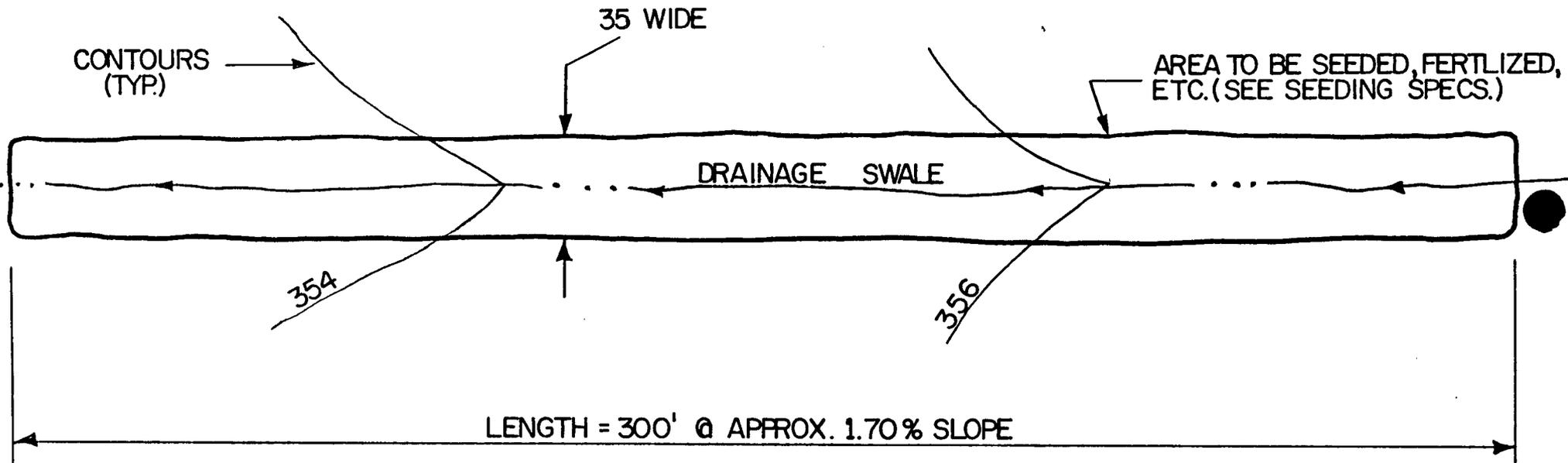
WINDROW & 14' GRAVEL ACCESS ROAD DETAIL

N.T.S.



GREENWAY DETAIL

(N.T.S.)



SEEDING SPECIFICATIONS

Permanent Seeding: (Permanent seeding to be matched to existing grass)

Species:

Tall Fescues (90%) & two
or more improved Kentucky Bluegrass Varieties (10%) 200-250 lbs/Acre

Seeding Dates:

	<u>Best</u>	<u>Possible</u>
Fall:	Aug. 25 - Sept. 15	Aug. 20 - Oct. 25
Winter:	---	Feb. 1 - Mar. 31

Lime: 4000 lb/Acre

Fertilizer: 1000/lb Acre 10-10-10 Fertilizer

Mulch: 4000 lb/Acre Small Grain Straw

Phosphorous: 600 lbs/Acre of 20% Superphosphate
(14 lbs/1000 sq. ft.)

Temporary Seeding: (Slope stabilization until time for permanent seeding)

Species:

Lespedeza (Kobe)	50 lb/Acre	Jan. 1 - May 1
Rye Grain	120 lb/Acre	" "
German Millet	40 lb/Acre	May 1 - Aug. 15
Sudangrass	50 lb/Acre	" "
Rye Grain	120 lb/Acre	Aug. 15 - Dec. 30

Follow above specifications for lime, fertilizer, and mulch.

Tack: All slopes exceeding 3:1 to have asphalt tack applied at the rate of 10 Gal/1000 ft²

Seedbed Preparation:

Surface Roughening: Surface to be roughened 4"-6" deep prior to seeding by disking, raking, harrowing, or other suitable methods. Groove or furrow slopes steeper than 3:1 on the contour before seeding.

Lime: Apply limestone uniformly and incorporate into the top 4"-6" of soil. Soils with a high pH need not be limed.

Fertilizer: Apply both fertilizer and lime into the top 4"-6" of soil. If hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.

(see seeding specs. for application rate for lime and fert.)



PUBLIC WORKS DEPARTMENT

City of Sanford
North Carolina 27330



TELEPHONE 775-8231
or 775-8301

P. O. BOX 338

June 18, 1992

Mr. William D. Sessoms, P. E.
N. C. Dept. of Environment, Health,
and Natural Resources
Division of Solid Waste Management
P. O. Box 27687
Raleigh, NC 27330

Dear Mr. Sessoms:

SUBJECT: Compost Facility Permit Application

The following is in reply to the comments that needed addressing in your letter of June 15, 1992:

1. The proposed Compost Facility site is not within the 100-year flood plain.
2. Enclosed is a copy of the letter of approval from the Land Quality Section.
3. We have investigated the site and have found no wetlands on the site, and that the site is not in close proximity to any wetlands.

If you have further questions, please give me a call.

Sincerely yours,

Victor I. Czar, P. E.
City Engineer

VIC:br

Enclosure

APPROVED
SOLID & HAZARDOUS WASTE MGMT. BRANCH
DATE APPROVED 7/2/92



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

June 15, 1992

Victor I. Czar, PE
City Engineer
City of Sanford
Post Office Box 338
Sanford, North Carolina 27330

Re: Composting Facility Permit Application
Completeness Review

Mr. Czar:

The Solid Waste Section has conducted a preliminary review of your Composting Facility Permit Application. In accordance with the North Carolina Solid Waste Management Rules the following items and comments must be addressed in order to continue the review process:

- .0903(a)(1) Is the site within the 100-year flood plain? If so, indicate the boundary of the 100-year flood plain on the site plan.
- .0903(a)(9) The site must meet the requirements of the Sedimentation Pollution Control Law. A letter of approval from the Land Quality Section must be submitted prior to our issuing a Solid Waste Section Permit.
- .0903(a)(11) Is the site in close proximity to any wetlands. If so, indicate wetland boundary on the site plan.

If you have any questions or require any assistance, please do not hesitate to contact our office at (919) 733-0692.

Thank you,

A handwritten signature in black ink, appearing to read "W. D. Sessoms", written over a horizontal line.

William D. Sessoms, PE
Solid Waste Section

copy: Terry Dover
Mark Fry



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

June 1, 1992

Mr. Victor I. Czar, PE
City Engineer
City of Sanford
PO Box 338
Sanford, North Carolina 27330

Re: Composting Facility Permit Application

Mr. Czar:

On May 1, 1992, the Solid Waste Section received the above referenced application. The section is currently analyzing the application for completeness. Should additional information be required, you will be contacted by this Section. The section will also acknowledge receipt of the complete application.

If you have any questions or require further information, please do not hesitate to contact our office at (919) 733-0692.

Respectfully,

A handwritten signature in black ink, appearing to read "William D. Sessoms", written over a horizontal line.

William D. Sessoms, PE

copy: Terry F. Dover
Mark Fry

YARD WASTE COMPOSTING CHECKLIST

File Name CITY OF SANFORD - COMPOSTING FACILITY

Application Received Date 5/1/92

Acknowledgement Letter Date 6/1/92

- Written Report
- Siting Aerial Photo/Map
- Plans, Details, and Specifications
- Operations Plan
- Zoning Letter (SHOWN ON PLANS)

Completeness Letter & Comments Date 6/15

- STATEMENT ON WETLANDS
- LAND QUALITY - EROSION CONTROL PERMIT
- FLOODPLAIN
-

Completeness Items Received Date 6/18/92

Technical Review Letter & Comments Date 7/2/92

-
-
-
-

Technical Review Completed Date 6/18/92

Issue Permit Number: _____ Date _____

- Cover Letter
- Original Permit
- Original Permit Conditions
- Original Plans To Applicant
- Plans and Permit To Central Files
- Plans and Permit To Regional Office
- Plans and Permit To Waste Management Specialist
- Solid Waste System Information Form



P.O. Box 338
Sanford, NC 27330

PLN: (919) 775-8242
INS: (919) 775-8244
FAX: (919) 775-8207

City Of Sanford

DEPARTMENT OF PLANNING, COMMUNITY DEVELOPMENT, AND INSPECTION

HAROLD P. McNEILL
DIRECTOR

MEMORANDUM

TO: Victor Czar, City Engineer

FROM: Harold P. McNeill, Director of Planning & C.D. *Harold P. McNeill*

SUBJECT: Yard Waste Facility

DATE: March 19, 1992

On March 17, 1992 the Sanford Board of Aldermen with recommendation from the Sanford Planning Board granted a "Conditional Use" permit to the Sanford Public Works Department to operate a collection center for yard waste and similar items on a 52.87 acre tract of land located on the northern end of N. Fifth Street and adjoining and west of Colon Road.

This property is located in a Light Industrial zoning district. Collection centers for yard waste are a "Conditional Use" in this zoning district.