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**OPERATIONS PLAN**

**CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL FACILITY  
PERMIT No. 92-30**

**Prepared For:**

**GREENWAY WASTE SOLUTIONS OF APEX, LLC**

**Prepared By:**

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## **1.0 INTRODUCTION**

This document is the Operations Plan for the Greenway Waste Solutions of Apex, LLC facility (Facility), located in Apex, Wake County, North Carolina. The Plan serves as a guide to the landfill operator with respect to routine landfill operations, environmental monitoring, and record-keeping. The Facility is permitted to operate as a construction and demolition (C&D) landfill in accordance with North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management Permit Number 92-30. The Facility is expected to have a maximum operational waste acceptance rate of 200,000 tons per year and is expected to be in operation for a minimum of 5 years from commencement of waste disposal. Equipment and staffing recommendations in this manual are based on these disposal rates and are subject to change in the event of future modification to waste acceptance rates at the Facility.

### **1.1 PURPOSE**

The operations plan is intended to serve as a site reference. Every employee should be acquainted with its contents and location at the site. Each section of this plan is self contained, easily updated, and may be used in the field, for training sessions, or self-instruction.

The operations manual addressed the following topics:

- Personnel requirements.
- Entrance procedures and recordkeeping.
- Incoming vehicle inspection.
- Traffic control.
- Landfilling operations.
- Recycling operations.
- Equipment requirements.
- Operation and maintenance of environmental controls.
- Contingency and emergency procedures.
- Safety practices and plan implementation.

This Operations Plan has been prepared in accordance with North Carolina Administrative Code (NCAC) Title 15A Section 13B .0542. Furthermore, the plan is based on engineering judgment and reflects generally accepted solid waste landfilling techniques.

### **1.2 REFERENCE DOCUMENTS**

This operations plan constitutes a portion of the Greenway Waste Solutions of Apex, LLC facility Permit to Construct Application prepared by BP Barber. The entire Permit to Construct Application should be kept on file with this plan at the site to supplement this plan in terms of long-term facility development plans, monitoring requirements, engineering design, site hydrogeology, construction activities, and site closure and post-closure care. Other documents pertinent to facility operations and site development include:



1. Report - Site Application - *Highway 55 C&D Landfill and Recycling Center* - prepared for Highway 55 C&D Landfill, LLC Construction & Demolition Landfill - Wake County, North Carolina; application dated 19 April 2002 and received 24 April 2002 from Enviro-Pro, P.C.
2. Response to Comment dated 19 March 2002 - Site Suitability Permit Application, response received 24 April 2002 and 8 May 2002 from Enviro-Pro for information dated 19 April 2002 and 7 May 2002.
3. Second Response to Comment letter dated 3 July 2002 - Site Suitability Permit Application - response dated 11 July 2002 "Revised Site Plan Application Report" from Enviro-Pro.
4. Certified minutes from Wake County dated 3 December 2001 and 19 November 2001 indicating the vote of the Wake County Commissioners in approving the franchise for Highway 55 C&D Landfill, LLC, received in the Revised Site Suitability application dated April 2002 received 24 April 2002.
5. Special Use Permit recorded in Deed Book: 9099 and Pages: 1039 thru 1044, as part of the Site Suitability application dated April 2002 received 24 April 2002.
6. Deed description for re-combination of properties consisting of Book: 9099 and Pages: 1039 - 1044 representing 116.333 acres and Book: 9488 and Pages: 0922 - 0923 representing 0.963 acres.
7. Reprocessing facility application dated December 17, 2002, signed by design engineer on December 18, 2002, received by the Solid Waste Section on December 19, 2002.
8. *Phase II Construction Plan Application, Phase I Closure Update, and Composting Permit*. Prepared for: Highway 55 C&D Landfill, LLC. Prepared by: BP Barber. August 2007. Revised June 26, 2008. As Amended February 5, 2009 and February 19, 2009. DIN 5054.

### **1.3 REGULATIONS**

Solid Waste Management Rules 15A NCAC 13B .0500 and all conditions of the operating permit granted by the NCDENR Division of Waste Management, shall take precedence and be complied with by landfill operators if there is an actual or perceived contradiction with the text of this plan, unless written consent for variance(s) is granted by the NCDENR Division of Waste Management. The Facility supervisory staff should be familiar with the State Solid Waste Management Rules and the Facility permit(s).



#### **1.4 LOCATION**

The Greenway Waste Solutions of Apex, LLC facility (Facility) is currently operating under Solid Waste Facility Permit Number 92-30. The Facility is located on Old Smithfield Road, in Apex, North Carolina. Currently, landfilling operations are on-going in Phase I of the Facility.



## **2.0 OPERATIONAL DRAWINGS**

Appendix A of the Facility Plan prepared by BP Barber consists of drawings which illustrate the site development prepared on topographical maps representative of existing site conditions. These drawings are consistent with the requirements of Subparagraph (d)(1) of Rule .0537 of 15A NCAC 13B. Appendix A consists of drawings as they relate to long-term operations of the facility consistent with Subparagraph (d)(2) of Rule .0537 15A NCAC 13B. In addition to these drawings, a drawing is attached to this Operational Plan that indicates processing storage areas for recyclables.



### **3.0 WASTE ACCEPTANCE AND DISPOSAL REQUIREMENTS**

The Facility will accept only those solid wastes it is permitted to receive. The landfill owner or operator must notify the Division within 24 hours of attempted disposal of any waste the C&DLF is not permitted to receive, including waste from outside the area the landfill is permitted to serve.

#### **3.1 ASBESTOS WASTE**

Friable asbestos waste must be managed in accordance with 40 CFR 61, which is hereby incorporated by reference including any subsequent amendments and additions. Copies of 40 CFR 61 are available for inspection at the Department of Environment and Natural Resources, Division of Waste Management. The regulated asbestos waste must be covered immediately with soil in a manner that will not cause airborne conditions and must be disposed of separate and apart from other solid wastes, as shown on Operation drawings:

1. In a defined isolated area within the footprint of the landfill, or
2. In an area not contiguous with other disposal areas. Separate areas must be designated so that asbestos is not exposed by future land-disturbing activities.

Non-friable asbestos may be accepted consistent with normal operating procedures as set forth in a following section.

#### **3.2 WASTE EXCLUSIONS**

The Facility will accept all types of wastes generated within approved service area except those prohibited by 15A NCAC 13B .0542 (e). Specifically, the following types of wastes will not be accepted:

1. Containers such as tubes, drums, barrels, tanks, cans, and bottles unless they are empty and perforated to ensure that no liquid, hazardous or municipal solid waste is contained therein,
2. Garbage as defined in G.S. 130A-290(a)(7),
3. Hazardous waste as defined in G.S. 130A-290(a)(8), to also include hazardous waste from conditionally exempt small quantity generators,
4. Industrial solid waste unless a demonstration has been made and approved by the Division that the landfill meets the requirements of Rule .0503(2)(d)(ii)(A),
5. Liquid wastes,
6. Medical waste as defined in G.S. 130A-290(a)(18),
7. Municipal solid waste as defined in G.S. 130A-290(a)(18a),
8. Polychlorinated biphenyls (PCB) wastes as defined in 40 CFR 761,
9. Radioactive waste as defined in G.S. 104E-5(14),
10. Septage as defined in G.S. 130A-290(a)(32),
11. Sludge as defined in G.S. 130A-290(a)(34),



12. Special wastes as defined in G.S. 130A-290(a)(40),
13. White goods as defined in G.S. 130A-290(a)(44), and
14. Yard trash as defined in G.S. 130A-290(a)(45),
15. The following wastes cannot be received if separate from C&DLF waste: lamps or bulbs including but not limited to halogen, incandescent, neon or fluorescent; lighting ballast or fixtures; thermostats and light switches; batteries including but not limited to those from exit and emergency lights and smoke detectors; lead pipes; lead roof flashing; transformers; capacitors; and copper chrome arsenate (CCA) and creosote treated woods.
16. Waste accepted for disposal in a C&DLF unit must be readily identifiable as C&D waste and must not have been shredded, pulverized, or processed to such an extent that the composition of the original waste cannot be readily ascertained except as specified in Subparagraph (17) of this Paragraph.
17. C&D waste that has been shredded, pulverized or otherwise processed may be accepted for disposal from a facility that has received a permit from an authorized regulatory authority which specifies such activities are inspected by the authority, and whose primary purpose is recycling and reuse of the C&D material. A waste screening plan and waste acceptance plan must be made available to the Division upon request.
18. The owner or operator of a C&DLF must not knowingly dispose any type or form of C&D waste that is generated within the boundaries of a unit of local government that by ordinance:
  1. Prohibits generators or collectors of C&D waste from disposing that type or form of C&D waste.
  2. Requires generators or collectors of C&D waste to recycle that type or form of C&D waste.

### **3.3 RECYCLING**

Incoming C&D waste will be recycled as much as is practical. A C&D recycling area will be located near, but clearly segregated from the working face as indicated on the attached drawing. However, the area will move based on the location of the working face. Incoming waste with recyclables will be unloaded at the recycling area near the working face.

#### **3.3.1 METALS**

Metals pulled from the load will be placed in the on-site metal recycling container.

#### **3.3.2 INERT DEBRIS**

Inert debris such as brick, concrete, concrete block, rock, etc. will be removed and transported to the reprocessing/material storage area for crushing see attached Site Plan. The inert debris will be stockpiled in a pile not to exceed 500 tons for periodic crushing.

#### **3.3.3 CARDBOARD**

Clean cardboard will be removed for baling.



### **3.3.4 WOOD WASTE**

Clean wood and pallets will be removed and stockpiled for grinding. The stockpile of wood waste will not exceed 500 tons. The ground wood may be incorporated into Greenway Waste at Apex's composting operation as a bulking agent or sold as boiler fuel.

### **3.3.5 SHINGLES**

Shingles will be accepted using best practices for acceptance and sorting to remove tear-off shingles from the waste stream as outlined by Carolina Asphalt Pavement Association.

#### **3.3.5.1 WASTE ACCEPTANCE**

Materials from flat and built-up roofing systems are disposed rather accepted for recycling due to higher use of asbestos roofing materials in those systems. Roofers are instructed to separate tear-off shingles into either a dedicated trailer or to layer their waste when loading so that the shingles can be easily separated from unacceptable debris.

The shingle suppliers are required to complete a supplier certification form. The handling and disposal of asbestos during demolition and renovation is regulated under the National Emissions Standards for Hazardous Air Pollution (NESHAP). Suppliers of shingles from a NESHAP regulated facility must present documentation that the shingles do not contain greater than 1% asbestos. The documentation is a letter from an accredited asbestos inspector or roofing supervisor that sampled the shingles and analytical test results. A copy of the documentation is kept with the supplier certification form.

Shingles from single family homes or residential building containing four or fewer dwelling units are generally not regulated under NESHAP. Only the source of the shingles is required for these shingles.

#### **3.3.5.2 FLOW AND MANAGEMENT OF SHINGLES**

Loads are visually inspected as they enter the facility. The roofer is asked to fill out a supplier certification form. Suppliers of shingles from a NESHAP regulated facility that contain greater than 1% asbestos are directed to the disposal area, others are directed to the stockpile area. Non-NESHAP regulated shingles are directed to the stockpile area.

The stockpile of shingles will not exceed 500 tons. The ground shingles will be transported off-site to a properly permitted third party end-user. Shingles will not be ground without acquiring all required Air Quality permits. A copy of the permit will be kept with the Operating Record.

#### **3.3.5.3 RECORD KEEPING**

Records are kept of shingles entering the facility and stockpiled. These records are kept with the Operating Record for the facility.

#### **3.3.5.4 TESTING REQUIREMENTS**

Shingles will not be ground without acquiring all required Air Quality permits. Asbestos sampling is required prior to grinding shingles. The testing frequency and protocols are set by



NCDENR-DAQ and NCDOT. The current frequency testing requirement is to sample each 100 tons of shingles (September 2011).

### **3.4 MOBILE HOME DECONSTRUCTION**

The Mobile Home Deconstruction Area is strictly for the deconstruction of mobile homes in order to recycle materials from the mobile homes. The Facility plans to recycle as many varieties of materials as possible as end users are available. Initially, scrap metal recycling will be conducted. Once an end-user of another material (i.e. glass) is located, these other materials may be recycled. Any non-recyclable material will be disposed of appropriately by the Facility upon completion of the deconstruction process.

The information contained herein was prepared to provide landfill personnel with a clear understanding of how the facility would be operated. While deviations from the operations outlined here may be acceptable, they should be reviewed and approved by the Design Engineer and the Facility Solid Waste Manager.

#### **3.4.1 CONTACT INFORMATION**

All correspondence and questions concerning the operation of the Facility Mobile Home Deconstruction Area should be directed to the appropriate County and State personnel listed below. For fire or police emergencies dial 911.

North Carolina Department of Environment and Natural Resources:

North Carolina Department of Environment and Natural Resources  
217 W Jones Street  
Raleigh, North Carolina 27603

Phone: (919) 707-8200

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

Eastern Area Supervisor:	Dennis Shackelford
Permitting Engineer:	John Murray, PE
Waste Management Specialist:	Shawn McKee

Town of Apex:

Environmental Programs Manager:	Mike Deaton, PE
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#### **3.4.2 MOBILE HOME DECONSTRUCTION PROCESS**

Mobile homes will be deconstructed using the following processes.

##### **3.4.2.1 ACCESS**

Mobile home owners seeking disposal will contact the Landfill and be placed on a waiting list. No more than TWO (2) mobile homes will be allowed on-site for deconstruction at one time.



Once space is available for a mobile home, the scale operator at the landfill will contact the next owner on the waiting list. The owner will have a 48 hour window in which to contact the Landfill with information regarding the delivery date and hauler. If owner cannot arrange delivery within this initial 48 hour period, the owner may make alternate arrangements for delivery and must notify the Landfill a minimum of 48 hours prior to planned delivery. The delivered mobile home will not be weighed on the scales at time of delivery, but the owner will be charged based upon the size and dimensions of the mobile home.

If delivery is not made within 48 hours of the scheduled delivery date, the owners name will be placed on the waiting list and the owner will be notified. If an owner has more than one mobile home, they will be rotated with others on the waiting list.

#### **3.4.2.2 WASTE DISPOSAL**

All mobile homes must be free of garbage, household hazardous waste, and all other non-construction and demolition waste prior to acceptance by the landfill.

#### **3.4.2.3 WHITE GOODS**

White goods will be accepted with the mobile home. White Goods will be removed using a track-hoe and handled in accordance with all State and Federal regulations. Any White Goods containing CFC's will be managed properly prior to removal of the White Goods, and deconstruction of the mobile home.

#### **3.4.2.4 ASBESTOS**

Since asbestos may be located in the building materials of mobile homes constructed prior to 1983, all mobile homes built before January 1, 1983 will be thoroughly sprayed with water (both interior and exterior) to minimize dust. Upon demolition of a mobile home constructed prior to 1983, the waste generated will be placed in the C&D landfill and covered with six inches of soil or approved alternate daily cover.

#### **3.4.2.5 DECONSTRUCTION**

Once accepted, the mobile home will be placed in the mobile home deconstruction area. Mobile home deconstruction will be dependent upon weather conditions and manpower availability and will **ONLY** take place in the deconstruction area. Prior to deconstruction, mobile homes constructed before 1983 will be thoroughly sprayed with water to minimize dust (as noted above). The home will then be deconstructed using a track-hoe. The track-hoe will tear the trailer apart and lay the pieces on the ground to be separated by landfill personnel. The personnel will separate the non-recyclable materials from the recyclable materials. Initially, scrap metal is planned for recycling. As other end-users for other materials are available, other materials may be separated for recycling. All material not planned for recycling will be placed in the C&D landfill before the end of the day in which the deconstruction takes place. Material from mobile homes constructed prior to 1983 will be covered prior to the end of the day. All recyclable materials will be stockpiled in the deconstruction area for future recycling. **NO OPEN FLAMES OR CUTTING WITH TORCHES WILL BE ALLOWED WITHIN 100 FEET OF THE C&D LANDFILL.**



### 3.4.2.6 HOLDING TIME

All mobile homes must be deconstructed within 45 days from acceptance into the deconstruction area. Upon receipt at the landfill, the date shall be painted on the side or end of the mobile home, or on the frame, for identification purposes for Solid Waste Section personnel.

### 3.4.2.7 RECORD KEEPING

The Facility shall maintain the following records related to the Mobile Home Deconstruction in an operating record at the landfill:

1. Mobile Home Acceptance records including dates and description;
2. Owner and hauler information for each mobile home;
3. Date of deconstruction for each mobile home and materials to be recycled;
4. Date and disposal information for all recycled materials tons include location and vendor of recipient of recycled materials.
5. Date and certification of CFC's removed.

The operating record will be kept up to date by the Landfill Manager or his designee. It will be presented upon request to DWM for inspection. A copy of this Operations Manual will be kept at the landfill and will be available for use at all times.

## 3.5 EMERGENCY/DISASTER VEGETATIVE AND LAND CLEARING DEBRIS

The site has been identified as an Emergency/Disaster Debris Site for tornado, hurricane, or ice storm debris and grinding services that will be hauled from the Wake County Convenience sites.

Storm debris will be ground for use as mulch, compost bulking agent, or industrial boiler fuel. To produce a wood chip that is suitable for mulch or fuel, ***chip size and absence of contaminants are critical***. Debris will be separated prior to grinding, and only tree waste and untreated and unpainted lumber shall be included in the chipping. All activities will adhere to the following guidelines:

- The chipping/grinding and storage area is located outside of identifiable or known floodplain and flood prone areas.
- The storage areas for incoming debris and processed material will be at a minimum 50 feet from all surface waters of the state. "Waters of the state" includes but is not limited to small creeks, streams, watercourses, ditches that maintain seasonal groundwater levels, ponds, wetlands, etc.
- The Storage area for incoming debris and processed material will be at least 100 feet from the site property boundaries and on-site buildings/structures.
- Management of processed material will be in accordance with "GUIDELINES FOR REDUCING THE POTENTIAL FOR SPONTANEOUS COMBUSTION IN COMPOST/MULCH PILES".



- The storage areas for incoming debris will be located at least 100 feet from residential dwellings, commercial or public structures, potable water supply wells, and septic tanks with leach fields.
- All activities will avoid identified wetlands should be avoided.
- The site will adhere to the approved erosion control measures, set forth by the Town of Apex.
- Dust control measures will be implemented when necessary to prevent dust from moving off-site or causing visibility problems.
- The Site will have an attendant(s) during operating hours to minimize the acceptance of unapproved materials and to provide directions to haulers and private citizens bringing in debris.
- The operator will manage the temporary debris management site to minimize the risk of fire. Any occurrence of fire, excluding authorized controlled burning, will be reported within 24 hours to the Solid Waste Section Environmental Senior Specialist.
- The site will be secure after operating hours to prevent unauthorized access to the site.
- Grinding of clean wood waste such as pallets and segregated non-painted/non-treated dimensional lumber is allowed.

### **3.6 WASTE SCREENING**

The landfill operator shall be responsible for screening wastes to ensure that hazardous or unacceptable wastes are not disposed in the landfill. Screening of wastes (load inspections) shall be accomplished as follows:

Informal load checking will be the responsibility of all employees, particularly those that work at the entrance area and those that work at or near the active fill area. Each employee will observe vehicles entering the Facility and landfill for any potentially unauthorized waste and will alert management personnel if any unauthorized wastes are suspected. Through the waste collection programs, there will be several checkpoints:

- Facility Entrance – Only authorized vehicles and material will be allowed beyond the scales. The scale attendant will refuse entry to any unauthorized vehicles or vehicles observed carrying unauthorized waste.
- Active face checkpoints – All incoming loads of waste will be observed by the equipment operators as it is discharged at the active face.
- Checkpoints during compaction at active face – Material will be inspected by the landfill compactor operator as it is compacted at the active face.



### 3.7 RANDOM LOAD INSPECTIONS

In addition to the visual inspections performed by the equipment operator/attendants, a random inspection program shall be implemented to detect and prevent disposal of any of the unauthorized wastes listed in previously. Inspections conducted as part of this program shall be performed by personnel trained in the following areas: methods for identification and determination of unauthorized wastes, handling procedures for unauthorized wastes, record keeping requirements of the program, and occupational health and safety. Inspection personnel shall also have a thorough understanding of the North Carolina Hazardous Waste Management Regulations (15A NCAC 13A) and the North Carolina Regulated Medical Waste Management Regulations (15 NCAC 13B .1203).

The frequency of the random inspections shall be determined by the quantity and type of waste received the familiarity with the generators and/or transporters, and the occurrences of identified unauthorized waste. Inspections should be performed at the minimum of one percent of the vehicles entering the facility.

The inspections also will be random. The time of day and day of week shall vary between inspections. The transporter/hauler selected for inspection shall also vary between inspections.

The procedure for the inspection shall be as follows:

- Stop the selected vehicle prior to the working face of the landfill.
- Notify the driver of the inspection.
- Direct the vehicle to the inspection area. The inspection area may be either a permanently designated location or a temporary location adjacent to the working face.
- If possible, perform a visual observation of the waste prior to unloading. If unauthorized waste is observed, or suspected, the vehicle shall be prohibited from unloading, and shall be directed out of the facility.
- If no unauthorized waste is observed or suspected from the visual observation, or if a visual observation is not possible, the vehicle shall discharge the load at the inspection area. The driver shall remain at the inspection area while the inspection is performed, unless a safety concern requires evacuation of the area. Equipment shall be used to spread and turn the waste to facilitate a visual observation of the load contents. If no unauthorized waste is identified, the waste shall be transferred to the working face for disposal.
- If unauthorized waste is identified in the load, and the unauthorized waste is not a regulated hazardous waste, a regulated medical waste, a regulated toxic waste, a regulated liquid waste, or a waste which requires special handling, the waste shall be loaded back into the vehicle and removed from the facility.
- If acceptability of the waste cannot be determined by visual observation, the waste can either be rejected and loaded back into the vehicle and removed from the facility, or samples of the waste can be taken to determine acceptability. Testing shall be selected based on the reason for the suspicion of unacceptability.



- If the waste is suspected of being a liquid waste, a regulated hazardous waste, a regulated medical waste, or a regulated toxic waste, site personnel will safely identify the nature of the unauthorized waste. Wastes within these categories are not to be handled by landfill staff. Upon assessment of the waste, qualified contractors will be contacted to provide direction for temporary handling, isolation, and security. Within 24 hours of discovery, the Facility will orally inform NCDENR Division of Waste Management (Division) of the incident and make every effort to contact a waste contractor for the proper packaging, removal, and disposal of the unauthorized waste. The Division will be informed in writing of the incident and steps taken to properly dispose of the unauthorized waste.

Management of this Facility reserves the right to establish acceptance criteria and procedures for certain non-municipal solid wastes. These may be more restrictive than required by law based on quantities and characteristics of the waste stream, current operating status of the landfill, and characteristics of waste streams previously received. Acceptability will be based on judgment of the landfill operator's technical personnel with respect to regulatory requirements, physical and chemical qualities and other technical considerations.

### **3.8 COVER, SPREADING, AND COMPACTING**

The working face will be restricted to the smallest area feasible and compacted as densely as feasible. Any area that exceeds one-half (1/2) acre or more on a weekly basis may be covered with six (6) inches of earthen material. Cover will be placed at more frequent intervals to control disease, vectors, fires, odors, blowing litter, and scavenging if necessary.

Areas where additional waste will not receive waste for three (3) months, but will receive additional waste in the future will be covered and stabilized with vegetative cover or other stabilizing material.

Appropriate methods including fencing and diking will be used to confine windblown solid waste. At the end of each day, windblown waste will be collected and disposed of in the landfill.

### **3.9 AIR CRITERIA AND FIRE CONTROL**

No open burning of waste will be permitted on site. The Division will be notified verbally within 24 hours and in writing with 15 days of any fire and/or explosion at the facility.

If a fire occurs at the landfill, the Town of Apex Fire Department will be notified. Hot loads that are brought to the facility will be immediately dumped away from the landfill and the fire department notified. The hot load will be sprayed down with water until extinguished. The load is then to be reloaded for disposal in the landfill.

### **3.10 ACCESS AND SAFETY**

The site has controlled access with the use of entrance gates. The entrance gates allow entry to the currently operating landfill located to the west of the expansion area. The same entrance will be used for access to the expansion area, and will remain gated. Access to the expansion area is restricted to the entrance gate only. Fencing and wooded buffer prevents access to the site from



all other areas. Access roads are all weather construction and will be maintained in good condition.

A scalehouse is located at the entrance with an attendant present during operational hours. The attendant is responsible for evaluating loads to assure compliance with operation requirements and to direct the loads to the appropriate location on site—landfill, recycling/processing area, or composting facility. In addition, signs are posted to direct loads to the appropriate area.

Dust is controlled on access roads through the use of a water truck. Signs are posted indicating that liquid, hazardous, and municipal wastes are prohibited.

### **3.11 EROSION AND SEDIMENTATION CONTROL**

The Erosion and Sedimentation Control Plan was developed to meet all requirements set forth by the Sedimentation Pollution Control Law (15A NCAC 4), and other requirements set forth by the North Carolina Department of Environment and Natural Resources (NCDENR). All erosion and sedimentation control measures were designed based on a 25-year, 24-hour storm event occurring in Wake County, North Carolina per the NCDENR Division of Waste Management-Solid Waste Program. Temporary measures to be used on the site are one (1) sediment basin and silt (sediment) fencing. These, along with permanent ditches and seeding make up all erosion control measures to be utilized on the site.

The sediment basin shall be inspected at minimum weekly, and after each significant rain event (1/2-inch or greater). Sediment shall be removed and the basin restored to original dimensions after sediment has accumulated to one-half (1/2) of design volume indicated by cleanout stripe on riser structure. Removed sediment shall be placed in an area that has sediment controls in place. Sediment basin spillways, baffles, embankments and outlet control structure shall be inspected at the same time for erosion damage and piping (embankment only). All necessary repairs shall be made immediately to prevent basin failure.

Silt fencing shall be inspected at least once per week and after every rainfall event. Any tears, cracks or overall failure should be repaired and/or replaced immediately. Sediment deposits shall be removed as necessary to ensure proper functioning of fencing. Silt fencing shall remain until final site stabilization has occurred.

Permanent ditches should be seeded and matted immediately after their construction; they should be inspected after all rain events for any failure of the ditch or erosion control matting. All outlet protection measures used to protect from damage to channel vegetation shall be inspected for wash out. All necessary repairs/replacements should be made immediately, and rip rap should be added where necessary.

Embankment and landfill cover slopes shall be periodically inspected for erosion. The slopes shall be mowed no more than twice per year. The embankment slopes shall be re-fertilized in the second year unless vegetation growth is fully adequate. The damaged areas shall be re-seeded (permanent seeding for embankment slopes and temporary seeding for landfill cover slopes), fertilized and mulched immediately. Seeding, fertilizing and mulching shall be in accordance with the Erosion and Sedimentation control plan. Appendix A of the Facility Plan presents all



erosion and sedimentation control measures on existing and proposed topography. The Engineering Report includes all relevant calculations and references for erosion and sedimentation control measures design.

### **3.12 OPERATING RECORD AND RECORDKEEPING**

The owner and operator will record and retain at the facility the following information including dates and times:

- Records for random waste inspections, monitoring results, certifications of training, and training procedures.
- Amount of recycled material recovered from in-coming waste. (Weighed as exported from the site).
- Amount of waste received at the facility and county of generation.
- Cost estimates for closure and post-closure.
- Notation of date and time of placement of cover material.
- All audit records, compliance records, and inspection reports.

If records are located at another location, it must be approved by the Solid Waste Section. All information contained in the operating record will be furnished to the Division upon request or made available for inspection by the division. The operating record will also include a copy of all approved permits and Monitoring Plans.



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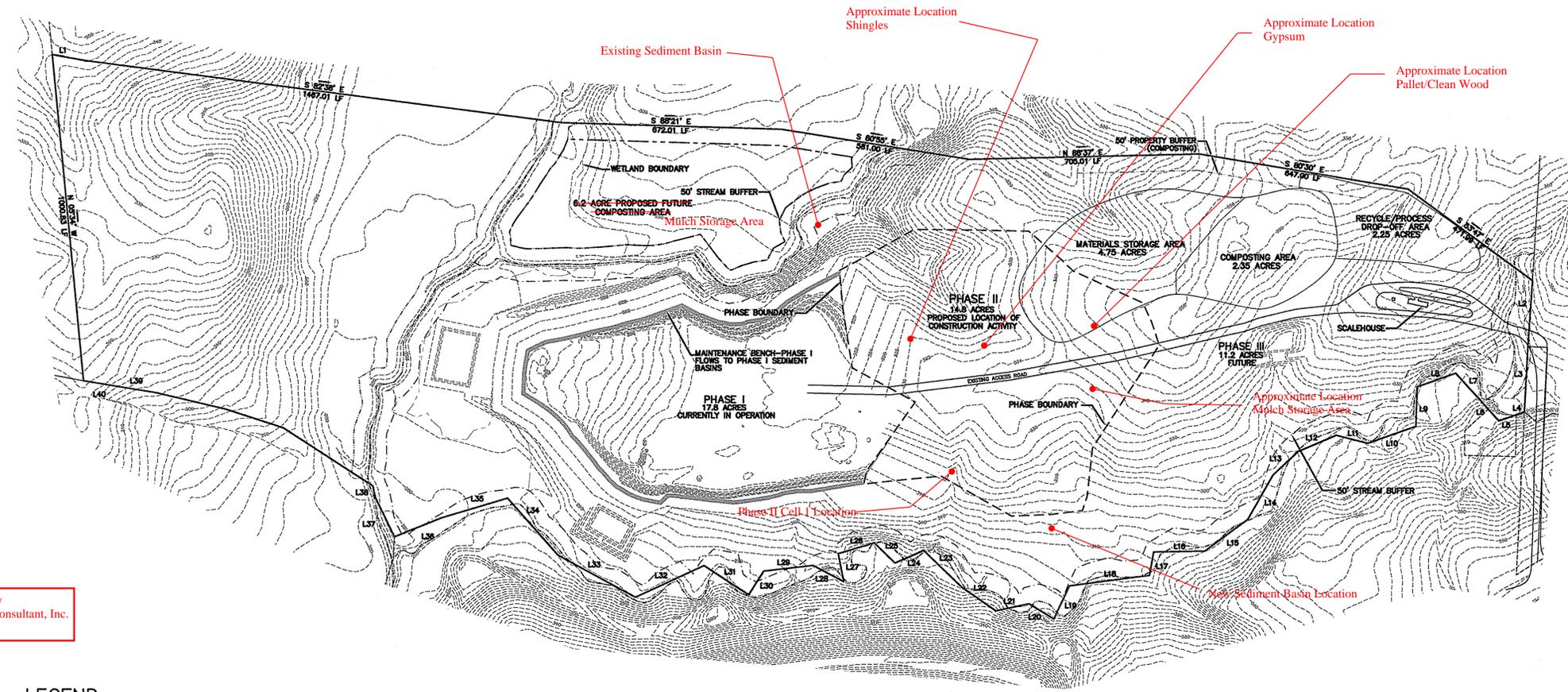
**ATTACHMENT 1**

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ALL PROJECTS ARE SUBJECT TO THE PROVISIONS OF THE ENVIRONMENTAL QUALITY ACT AND THE FEDERAL REGISTER. THIS DRAWING IS THE PROPERTY OF B.P. BARBER & ASSOCIATES, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART, IT IS ONLY TO BE USED FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON AND IS NOT TO BE USED ON ANY OTHER PROJECT.

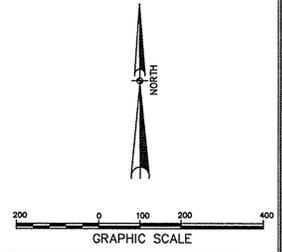
PROPERTY BOUNDARY LINE TABLE		
CURVE NO.	LENGTH-LF	BEARING
L1	106.00	S 80°05' E
L2	201.04	S 03°56' W
L3	199.95	S 02°59' W
L4	26.50	S 69°17' W
L5	56.50	S 70°46' W
L6	48.15	N 41°56' W
L7	148.88	N 42°17' W
L8	25.00	S 70°17' W
L9	120.99	S 01°51' W
L10	155.99	S 70°45' W
L11	99.00	N 75°48' W
L12	126.99	S 66°51' W
L13	104.00	S 47°00' W
L14	155.99	S 29°30' W
L15	182.99	S 53°29' W
L16	157.00	S 88°58' W
L17	72.00	S 09°56' W
L18	246.99	S 82°33' W
L19	111.99	S 25°00' W
L20	89.00	S 58°35' W
L21	104.00	S 77°55' W
L22	128.00	N 55°08' W
L23	160.01	N 46°20' W
L24	96.00	S 66°31' W
L25	88.01	N 45°46' W
L26	115.00	S 73°24' W
L27	86.99	S 11°10' E
L28	106.00	N 62°13' W
L29	151.99	S 83°27' W
L30	85.99	S 32°30' W
L31	163.00	N 56°55' W
L32	230.99	S 65°17' W
L33	269.01	N 61°40' W
L34	233.01	N 41°59' W
L35	209.99	S 73°23' W
L36	155.82	S 67°58' W
L37	138.13	N 26°04' W
L38	31.18	W 09°28' W
L39	217.49	N 80°40' W
L40	6.17	N 80°29' W

- SITE DATA**
- PARCEL IDENTIFICATION NUMBER: 0740448719
  - ZONING: I-1 (INDUSTRIAL DISTRICT)
  - TOTAL SITE AREA: 116.3 ACRES
  - TOTAL PHASE II AREA: 14.8 ACRES



Changes in RED made by Civil & Environmental Consultant, Inc. on December, 21, 2011

	EXISTING	NEW
CONTOURS (2')	---82---	---602---
CONTOURS (10')	---80---	---600---
EDGE OF PAVEMENT	—————	N/A
PROPERTY LINE	—————	N/A
200' PROPERTY BUFFER	N/A	—————
WETLAND BOUNDARY	-----	N/A
50' STREAM BUFFER	N/A	-----
PHASE II BOUNDARY	N/A	—————



APPROVALS	PROJECT ENG.	NO.	DATE	BY
	ACW			
DESIGNED BY:	WRK			
	ACW			
DRAWN BY:	WRK			
	ACW			
CHECKED BY:	WRK			
	ACW			
APPROVED:	WRK			
	ACW			

	DATE	07/16/10
	SIGNATURE	<i>[Signature]</i>

**bpbbp Barber**  
 Engineering • Experience • Excellence  
 COLUMBIA • GREENVILLE • CHARLESTON  
 FLORENCE • CHARLOTTE • SAVANNAH

**SITE PLAN**

TITLE SHEET

DATE: AUGUST 30, 2010 SCALE: AS SHOWN

PROJECT: HIGHWAY 55 C&D LANDFILL AND RECYCLING CENTER—PHASE II FOR HIGHWAY 55 C&D LANDFILL, LLC NORTH CAROLINA WAKE COUNTY

.DWG NAME	SHEET
05185H55_Base	2
N.B. NO.	OF
REF.	9
PROJECT NO.	
05185H55	

FILE NO. XX,XXX-XXX