

Greensboro Transfer Station Permit Application

City of Greensboro,
North Carolina



HDR

ONE COMPANY | *Many Solutions*SM

APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION

DATE 9/30/2004 BY TJB
PERMIT # 41-20-T

MAY 2004

Revised September 2004



North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary

September 30, 2004

Ms. Jeryl Covington, P.E.
Environmental Services Director
City of Greensboro
401 Patton Avenue
Greensboro, North Carolina 27406

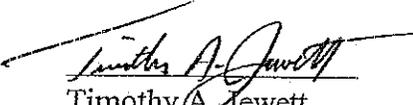
Re: Greensboro Transfer Station, Permit # 41-20-T
Greensboro, Guilford County, North Carolina

Dear Mr. Bacon:

Enclosed is a Permit to Construct and "draft" copy of the Permit to Operate for the referenced Solid Waste Transfer Facility and the accompanying conditions for the above referenced facility. Please note Construction Condition #7, which identifies the pre-operational requirements for this facility that need to be met prior to the issuance of a Permit to Operate. In addition to items listed in Condition #7, a pump and haul agreement listing the contractor and final disposal point for leachate shall be submitted if a connection to a sanitary sewer is not in place by the time a permit to operate is requested. Also note Appendix 1 which shows the counties in the approved service area. Please let us know if the counties listed are incorrect and the proposed disposal point for transferred waste.

We request that you contact the Solid Waste Section to schedule a pre-construction meeting at the site once a contractor has been selected for this project. Please review the conditions of the permit carefully and if you have any questions or comments please contact me at (336) 771-4608 ext. 204 or Hugh Jernigan, Waste Management Specialist, at ext. 206.

Sincerely,


Timothy A. Jewett
Western Area Engineer
Solid Waste Section

cc: Jim Barber, SWS
Brent Rockett, SWS
Hugh Jernigan, SWS
Joe Readling, HDR Engineering, Inc.
Raleigh Central File - Guilford County (41-20-T)

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone 919-733-0692 \ FAX 919-733-4810 \ Internet <http://wastenotnc.org>



North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary

PERMIT NUMBER 41-20-T
ORIGINAL ISSUED (PTC): September 30, 2004

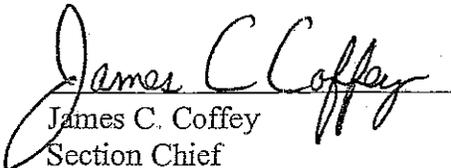
SOLID WASTE PERMIT

City of Greensboro

is hereby issued a Permit to CONSTRUCT the

GREENSBORO TRANSFER STATION

located at 6310 Burnt Poplar Road at the intersection of Burnt Poplar Road (SR 1556) and Chimney Rock Road (SR 1554), west of the City of Greensboro, Guilford 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 facility is located and described by the plans submitted and the permit application narrative.


James C. Coffey
Section Chief
Solid Waste Section
Division of Waste Management

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone 919-733-0692 \ FAX 919-733-4810 \ Internet <http://wastenotnc.org>

PERMIT NUMBER: 41-20-T
DATE ISSUED (PTC): SEPTEMBER 30, 2004
FACILITY NAME: GREENSBORO TRANSFER STATION
CONDITIONS OF PERMIT

GENERAL:

1. This facility is permitted to receive solid waste as defined in 15A NCAC 13B .0101, except that hazardous and liquid wastes are prohibited from acceptance at this facility.
2. This facility may receive solid waste that is generated within the service area described in Appendix I of this document and shall dispose of said solid waste at the XXXXX Regional Landfill (Permit No. XX-XX) located in XXXX County, North Carolina and operated by XX (to be determined prior to issuing the permit to operate).
3. This permit is valid for five (5) years, as per 15A NCAC 13B .0201(e), according to the issuance date of the permit to operate. Modifications shall be in accordance with the Rules in effect at the time of review.
4. This permit is not transferable.

CONSTRUCTION:

5. This permit is for construction and operation of the transfer facility in accordance with the approved plans. Any revisions or modifications to these plans shall be approved by the NC Solid Waste Section (the Section).
6. All sedimentation and erosion control activities shall be conducted in accordance with the Sedimentation and Pollution Control Act, 15A NCAC 4, and all applicable permits shall be secured prior to construction.
7. The following requirements shall be met prior to receiving a "PERMIT TO OPERATE" from the Solid Waste Section:
 - a) Site inspection shall be made by a representative of the Section.
 - b) Construction shall have been in accordance with the approved plan.
 - c) Three (3) copies of record "as-built" drawings shall be submitted to the Section.
 - d) The permit number and the words, "No hazardous or liquid wastes accepted" shall be posted on a sign at the entrance and access controls shall be installed.
 - e) Installation of the drains, leachate collection devices, sanitary sewer connections or leachate storage tanks for the disposal of wash down water and leachate shall be operational. The tipping floor shall have positive drainage away from the building entrance and toward the sump in the loading pit or trench drains installed along the entrance to the tipping floor as part of the leachate collection system.

PERMIT NUMBER: 41-20-T
DATE ISSUED (PTC): SEPTEMBER 30, 2004
FACILITY NAME: GREENSBORO TRANSFER STATION
CONDITIONS OF PERMIT

- f) Documentation in the form of a deed, recorded survey, or other instrument to show ownership of the facility shall be submitted to the Section.

OPERATIONAL:

- 8. Operation of the facility shall occur in accordance with 15A NCAC 13B .0402, "Operational Requirements for Transfer Facilities", the approved operations plan and these additional requirements:
 - a. The owner or operator of a municipal solid waste management facility shall not knowingly dispose of any type or form of municipal solid waste that is generated within the boundaries of a unit of local government that by ordinance:
 - 1. Prohibits generators or collectors of municipal solid waste from disposing of that type or form of municipal solid waste.
 - 2. Requires generators or collectors of municipal solid waste to recycle that type or form municipal solid waste.
 - b. This facility shall be operated in a manner which is consistent with the State solid waste management plan and with the solid waste management plans that have been adopted by those units of local government served by the facility and approved by the Section.
 - c. Waste shall not be stored on the "tipping floor" after operating hours. Waste can be stored in transfer trailers, at the facility with covers in place, after operating hours, but no longer than 48 hours.
 - d. The tipping floor and transfer trailer loading area shall be maintained in a clean, sanitary condition after operating hours in accordance with the approved Operational Plan.
 - e. On or before 1 August (or at an earlier date as requested by the Division) of each year, the owner or operator shall report to the NC Solid Waste Section, for the previous year beginning 1 July and ending 30 June, the amount by weight of the solid waste that was received at the facility and disposed of in a landfill, incinerated, or converted to fuel. To the maximum extent practicable, such reports shall indicate by weight the COUNTY of origin of all solid waste. The owner or operator shall transmit a copy of the report to the county in which the facility is located and to each county in which waste originated.

APPENDIX 1

APPROVED SERVICE AREA
GREENSBORO TRANSFER STATION

The following counties are included in the service area for the referenced facility.

1. GUILFORD

ATTACHMENTS

1. Document titled "Environmental Assessment, Greensboro Transfer Station, Guilford County, North Carolina," prepared for the City of Greensboro by HDR Engineering, Inc. and dated September 2003.
2. Letter dated 16 December 2003 from the North Carolina Department of Administration, Environmental Policy Act Coordinator, referencing the Environmental Assessment and Finding of No Significant Impact (FONSI) for the facility. No comment and no further review action is required by the State Clearinghouse under the North Carolina Environmental Policy Act.
3. Transfer facility permit application, submitted on behalf of The City of Greensboro by HDR Engineering, Inc. dated 19 May 2004 including conceptual design, site plan, and operations plan.
4. Revisions to the transfer facility permit application, submitted on behalf of The City of Greensboro by HDR Engineering, Inc. dated 16 September 2004 including special use permits addressing zoning, approval for the sedimentation and erosion control plan from the NC Division of Land Quality, and various changes to the operations plan.



September 16, 2004

Mr Timothy A Jewett
District Engineer II
North Carolina Department of
Environment and Natural Resources (NCDENR)
Solid Waste Section
585 Waughtown Street
Winston-Salem, NC 27107-2241

Re: Greensboro Transfer Station Permit Application
Greensboro, North Carolina
HDR Project No. 06770-2707-018

Dear Mr Jewett:

HDR Engineering, Inc. of the Carolinas (HDR) has reviewed your comments provided on September 2, 2004, regarding the Greensboro Transfer Station Permit Application. Below are the responses to your comments. Two revised copies of the application are also enclosed

- 1. Building Drainage** – Within the “Facility Drawings” section of the application is an updated Drawing C-04, Site Utilities Plan. This drawing depicts the location of storm drainage piping and sanitary sewer piping. Inside the main (upper) tipping floor area, there are four trench drain sections located along the northern wall. These are the only floor drains at the upper level. The drains will be connected by underground piping (not shown on C-04) that goes east out of the building, and then south along the face of the building and into drop inlet #22 (DI-22). From DI-22, flow travels through the grease and grit trap and on to the sanitary sewer. The lower, truck loading level has a segmental weigh scale under each hopper as shown on the enclosed Drawing S-03, Transfer Station Truck Load-Out Scale Foundation/Slab Plan. Drainage from beneath the northern-most scale will travel in a trough along the northern edge of the scale and exit the building on the west side, with a direct connection into DI-24. Drainage from beneath the southern-most scale will travel in a trough along the southern edge of the scale, and exit the building on the east side, via direct connection into DI-21. DI-21, 22, 23, and 24 are located immediately outside the building wall line, and are intended to take all flows from the loadout lanes into the sanitary sewer. DI-4, 5, 9, and 10 are located farther outside the loadout lanes to intercept stormwater and carry it through piping to the on-site detention basin.

Mr. Timothy A. Jewett
September 16, 2004
Page 2

2. ***Destination Disposal Facility and Service Area*** – The language in Sections 2.1 and 2.3 were not intended to define a service area at this time, as final contract negotiations for waste disposal have not been completed. The City of Greensboro will notify you when contract negotiations are completed, and formally clarify the appropriate service area for the facility prior to requesting the Permit to Operate.
3. ***Zoning and Special Use Permit*** – Additional information has been included in the Appendix section of the application to further clarify the zoning and special use approval for the site.
4. ***Erosion and Sediment Control Approval*** – An Erosion and Sediment Control Permit from NCDENR – Land Quality has been obtained. A new tab has been added to the application entitled “Erosion Control Approval.” The “Letter of Approval With Modification,” as well as the six drawings that were included in the erosion control permit application, are now included behind this tab.
5. ***Waste Screening*** – Section 3.3, Waste Screening, has been added to the application narrative.

We hope that this response adequately addresses your comments. If you have any questions regarding this, please feel free to contact me at (704) 338-6717.

Sincerely,

Philip A. Wotmanland - for

Joseph C. Readling, PE, VP
Project Manager

JCR/jvd

Enclosures

cc: Jeryl Covington, PE, w/ enclosures
Greg Dingman, w/ enclosures



May 19, 2004

Mr. Timothy A. Jewett
District Engineer II
North Carolina Department of
Environment and Natural Resources
Solid Waste Section
585 Waughtown Street
Winston-Salem, NC 27107-2241

Re: Greensboro Transfer Station Permit Application
Greensboro, North Carolina
HDR Project No. 06770-2707-018

Dear Mr. Jewett:

On behalf of the City of Greensboro, HDR Engineering, Inc. of the Carolinas is pleased to submit two copies of the permit application for the proposed solid waste transfer station for your review.

If you have any questions regarding this, please feel free to contact me at (704) 338-6717.

Sincerely,

Joseph C. Readling, PE VP
Project Manager

JCR/jvd

Enclosures

cc: Greg Dingman, 2 copies
Jeryl Covington, PE, w/o enclosure

GREENSBORO TRANSFER STATION

PERMIT APPLICATION

MAY 2004

Revised September 2004

Prepared for.



City of Greensboro
P.O. Box 3136
Greensboro, NC 27402-3136

Prepared by

HDR

HDR Engineering, Inc. of the Carolinas
128 South Tryon Street, Suite 1400
Charlotte, NC 28202-5004

HDR Project No. 06770-2707-018

TABLE OF CONTENTS

<u>SECTION</u>		<u>PAGE</u>
1.0	INTRODUCTION	1
	1.1 Purpose	1
	1.2 Facility Location	1
	1.3 Facility Description	3
2.0	WASTE ACCEPTANCE CRITERIA	4
	1.2 Introduction	4
	2.2 Recyclable Material	4
	2.3 Prohibited Wastes	4
3.0	TRANSFER STATION OPERATIONS	5
	3.1 Background	5
	3.2 Tipping Floor	5
	3.3 Waste Screening Programs	6
	3.3.1 Waste Receiving and Inspection	7
	3.3.2 Record Keeping	8
4.0	EROSION CONTROL AND STORMWATER REQUIREMENTS	9
	4.1 Erosion and Sediment Control	9
	4.1.1 Temporary Sediment Traps	9
	4.1.2 Temporary Diversion Channel	9
	4.1.3 Vegetative Stabilization	9
	4.1.4 Silt Fence	10
	4.1.5 Temporary Gravel Construction Entrance/Exit	10
	4.2 Stormwater Control	10
5.0	DRAINAGE CONTROL AND WATER PROTECTION REQUIREMENTS	11
6.0	DISEASE AND VECTOR CONTROL	12
7.0	SIGN AND SAFETY REQUIREMENTS	13
	7.1 Sign Requirements	13
	7.2 Open Burning of Waste	13
	7.3 Fire Protection Equipment	13
	7.4 Notification of Fire	13

TABLE OF CONTENTS

<u>SECTION</u>		<u>PAGE</u>
8.0	ACCESS AND SECURITY REQUIREMENTS	14
8.1	Transfer Station Access and Security	14
8.2	Attendant	14
8.3	Access Road	14

FIGURE

Figure 1 Vicinity Map

APPENDIX

Zoning Approval Letter

FACILITY DRAWINGS

C-01	Existing Conditions
C-04	Site Utilities Plan
A-01	Transfer Station Exterior Elevations Sheet #1
A-02	Transfer Station Exterior Elevations Sheet #2
A-31	Prefabricated Scalehouse Exterior Elevations
S-03	Transfer Station Truck Load-Out Scale Foundation/Slab Plan

EROSION CONTROL APPROVAL

C-01a	Soil Stockpile Plan
C-03	Site Grading Plan
C-04	Site Utilities Plan
C-07	Pond Plan Details and Profile
C-08	Erosion and Sedimentation Control Details
C-12	Miscellaneous Details

SECTION 1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this Operations Plan (Plan) is to provide the City of Greensboro (City) Environmental Services Department with a Plan that will serve as a guide to safely maintain and operate the City's municipal solid waste (MSW) transfer station. This Plan has been prepared in general accordance with the North Carolina Solid Waste Rules 15A NCAC 13B .0402, Operational Requirements for Transfer Facilities. The Plan also addresses pertinent operational requirements outlined in Rule .0505, Operational Requirements for Sanitary Landfills and will discuss the following issues.

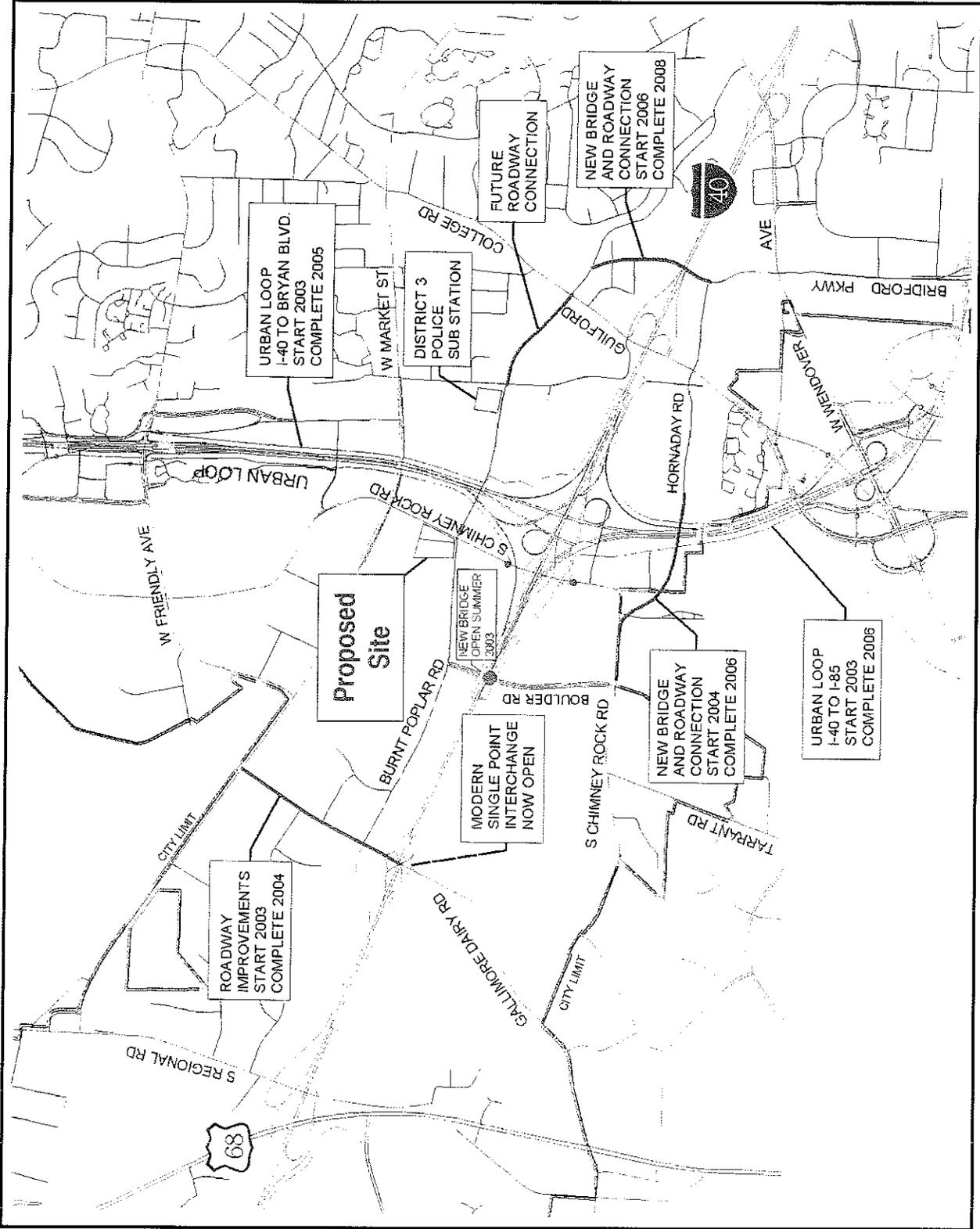
- ◆ Waste Acceptance and Screening Criteria
- ◆ Facility Operations
- ◆ Erosion Control Requirements
- ◆ Drainage Control and Water Protection
- ◆ Disease and Vector Control
- ◆ Sign and Safety Requirements
- ◆ Access and Security Requirements

The Greensboro Transfer Station (Transfer Station) will become a part of the City's current integrated waste management system. The Transfer Station will be developed to provide a mechanism for transferring and transporting MSW generated in the City and surrounding regions to an out-of-city permitted MSW landfill currently undesignated. The facility will include the Transfer Station, scale and scale house system, administrative building, and a citizen's drop-off area.

1.2 FACILITY LOCATION

The Transfer Station site is an approximate 10-acre parcel located on the west side of the City approximately 1/2 mile north of Interstate 40 at the corner of Burnt Poplar and Chimney Rock Roads. A vicinity map for the Transfer Station is provided on Figure 1, on the following page. Primary access to the site will be via Burnt Poplar Road. In order to facilitate anticipated traffic volumes, turn lanes into the site will be required along Burnt Poplar Road. The building site, which includes the tipping floor and administrative building, encompasses approximately 28,000 square feet (0.64 acres) of the 10-acre site. The property was zoned as Heavy Industrial but was rezoned by the City as "Special Use Permit," which is suitable for the development of public facilities including solid waste transfer stations. Refer to the appendix at the end of this document for information regarding zoning of the site. The mailing address for the transfer facility is 6310 Burnt Poplar Road, Greensboro, North Carolina 27409-9710.

Figure 1
VICINITY MAP
Greensboro, North Carolina



The site is located in an industrial area on a currently vacant parcel. Limited vegetation exists along the borders to the site; however, the current use of the adjacent property includes tank farms to the north and east, a trucking operation to the south, and vacant industrial property to the west (refer to Drawing C-01, Existing Conditions for further information). The topography of the site slopes from the southeast and northwest to a drainage feature, which traverses the center of the property from east to west. Where possible, the topography has been used to reduce the earthwork, filling, and grading required to produce the grade and elevation changes for the bi-level, direct-dump type of transfer station proposed. Refer to Drawing C-04, Site Utility Plan for the proposed grading of the site.

1.3 FACILITY DESCRIPTION

The Transfer Station facility will consist of a tipping/administrative building, citizen's drop-off area, scale house, and access roads. The Transfer Station will utilize a bi-level, non-compacted, direct-dump design, consisting of a refuse hopper and a tipping area on the upper level, and a "load-out" area on the lower level. At the entrance to the site, a scaling system will be installed to determine and record facility throughput. This system will consist of inbound and outbound truck scales and a scale house with remote operations equipment.

The operational areas (maneuvering area, tipping floor, and operations/control area) will be enclosed by a pre-engineered metal, panel-type, building. The operational areas will be accessed by a roadway system consisting of entrance and exit roads and parking for users of the facility. The access roads will have either an asphalt- or concrete-paved surface. Landscaping will be provided as required to enhance site aesthetics and reduce noise levels.

The Transfer Station will be capable of transferring approximately 900 tons per day (tpd) of MSW based on an eight-hour operating day. The tipping floor area is sized to accommodate storage of 100 percent of a peak day's refuse.

The City will be the owner and operator of the Transfer Station. The primary contact person for issues concerning operation of the Transfer Station will be:

Ms. Jeryl Covington, PE
Environmental Services Director
City of Greensboro
401 Patton Avenue
Greensboro, NC 27406

SECTION 2.0
WASTE ACCEPTANCE CRITERIA

2.1 INTRODUCTION

In accordance with 15A NCAC 13B .0402(1), a waste transfer facility shall only accept those wastes which it is permitted to receive. This Transfer Station will accept only MSW (i.e., residential, commercial, and industrial waste) generated within the service area. Based on recent annual landfill waste disposal records, the City anticipates receiving an annual tonnage rate of approximately 225,000 tons per year (tpy) of MSW at the Transfer Station. The projected annual tonnage rate yields a daily rate of 725 tpd based upon 312 operating days per year. The daily tonnage rate is subject to change due to fluctuations in the amount of waste delivered to the facility; therefore, the Transfer Station has been designed to handle a maximum average tonnage rate of 900 tpd to account for daily surges in waste flow. The residential waste will be transported to the transfer facility by City and private hauler vehicles. The residential vehicles will consist primarily of pick-up trucks and cars, while the private hauler vehicles will be of the rear and side loader truck types. Commercial and industrial waste will be primarily transported to the facility by private waste haulers.

2.2 RECYCLABLE MATERIAL

The Transfer Station will have containers for citizen's drop-off recyclables

2.3 PROHIBITED WASTES

In accordance with Rule .0505(10)(e), the Transfer Station will not accept barrels or drums unless they are empty and perforated sufficiently to ensure they contain no liquid or hazardous waste. In accordance with Rule .0505(11)(b), no hazardous or liquid waste shall be accepted at the Transfer Station. In addition, the Transfer Station will not accept infectious or regulated medical waste, bulk animal waste, or radioactive waste. A report shall be prepared for any attempted delivery of waste of which the Transfer Station is not permitted to receive, including from outside the permitted service area. The report will be forwarded to:

North Carolina Department of Environment and Natural Resources (NCDENR)
Solid Waste Division
P.O. Box 27687
Raleigh, NC 27611-7687
(919) 733-0692

SECTION 3.0 TRANSFER STATION OPERATIONS

3.1 BACKGROUND

The Transfer Station will be open to the public Monday through Friday from 6:00 a.m. to 6:00 p.m. and Saturdays from 7:00 a.m. to 1:00 p.m. It will be closed on Sundays and holidays designated by the City. A sign will be posted at the entrance identifying the hours of operation. The proper operation of the Transfer Station will require a sufficient number of trained personnel working in cooperation with each other.

Various types of mobile equipment will be required to operate the Transfer Station. The vehicles required include refuse transfer vehicles, front-end loaders, and tamping cranes. The City will be responsible for providing primary equipment, backup equipment, and equipment maintenance. The transfer vehicles will be heavy duty "over the road" tractors with non-compacted type trailers geared for open-top loading. If so equipped, the refuse ejection system will be a push-blade, chain-drag, or live-bottom type. Should standard trailers be used, a tipper will need to be provided at the permitted MSW receiving landfill. The maintenance requirements and payload capacity will be the primary factors utilized in the selection of the transfer trailer.

The Transfer Station, utilizing two load-out hoppers, will require the use of a heavy duty, front-end loader (CAT 972G with a waste handling package or similar). The loader will push the refuse ejected onto the tipping floor into the load-out hopper. The loader will be a heavy-duty type and will have the capability to move a large quantity of refuse. The loader will be equipped with a waste-handling package. A wheeled tamping crane (CAT M312 or similar) will be utilized for refuse leveling operations and compacting waste into the trailers.

3.2 TIPPING FLOOR OPERATIONS

City and commercial haulers will deliver MSW to the Transfer Station each day during the designated hours. Upon arrival at the scale facility, the scale operator will determine the load characteristics and acceptability of the waste material being delivered. If the load is determined to be unacceptable, it will be rejected and directed to an appropriate disposal point. If required, notification will be given to the proper authorities for the handling of illegal or hazardous waste materials.

After the weighing process, the collection vehicles will be directed to the Transfer Station. Waste vehicles will be stopped at the entrance of the building by a station spotter and then directed to specific deposition areas on the tipping floor. It is the spotter's responsibility to queue the vehicles at the building entrance to keep the truck maneuvering area clear and provide a safe ingress and egress. Once the vehicle is in position and the waste has been inspected by the attendant, the load will be discharged directly onto the tipping floor. After dumping, the vehicles will exit the station. Vehicles not previously tared will be directed back to the scale facility to determine the weight of the empty vehicle.

Waste dumped on the tipping floor will be pushed with a front-end loader through the hoppers into the trailers in the lower load-out area. The lower level of the Transfer Station will have two drive-through areas for transfer trailer truck access. The open-top transfer trailer trucks pull into the drive-through areas and align themselves beneath the open pits. Once the trailer truck is in position, the operator will load and compact the waste into the transfer trailer. A mobile crane with a grapple bucket will be located behind the hoppers for use in leveling and tamping the loads in the trailers. Load-out scales will be used to determine when a trailer has been fully loaded. The loaded trailers will be moved to a staging area prior to departure for the disposal facility. The lower drive-through areas have been designed to provide sufficient space for drivers to exit their vehicles and walk to safety in the event of an emergency.

A separate tipping area outside of the transfer building has been included for "citizen" vehicles. This will reduce the interaction between citizen vehicles and the city/commercial vehicles during peak operating hours.

The Transfer Station has been designed with a 28,000-square foot tipping floor and a 13.5-foot high push wall that runs along the west side and a portion of the east side of the tipping floor. There are two open pits (33 feet long by 6 feet wide) located at the south end of the facility approximately 14 feet above the drive-through areas.

The number of trips per day of the transfer trailers is based on the throughput capacity of the Transfer Station and the haul time to the designated disposal site. In order to handle 900 tpd, require a minimum of 45 transfer trailer trips will be required, assuming a transfer trailer payload of 20 tons. Given normal operation, 20 tractors and 25 trailers would be dedicated to this Transfer Station. Additional tractors and trailers will be available for backup purposes.

Though the tipping floor area is sized to accommodate storage of 100 percent of a peak day's refuse, solid waste will not be allowed to remain on the tipping floor overnight. Empty trailers will remain at the Transfer Station overnight, thus accommodating station requirements each morning and allowing scheduled flexibility with respect to station personnel and driver shifts to complete transfer operations and unloading at the end of each workday.

The tipping floor and drive-through areas will be washed down as needed throughout the day, as well as at the end of each operating day (refer to Drawing C-04, Site Utilities Plan). The washdown water will be collected by trench drains located on the upper level and driveway drains located in the drive-through areas on the lower level of the Transfer Station. This collection system should effectively maintain washdown water separate from stormwater. The washdown water will ultimately drain into a sanitary sewer line that connects to the gravity sewer main along Burnt Poplar Road.

3.3 WASTE SCREENING PROGRAMS

In order to assure that prohibited wastes are not entering the Transfer Station, screening programs will be implemented. Waste received at both the scale house entrance and waste taken to the tipping floor will be inspected by trained personnel. These individuals have been trained to spot indications of suspicious wastes, including: hazardous placarding or markings; liquids;

powders or dusts; sludges; bright or unusual colors; drums or commercial size containers; and “chemical” odors. Screening programs for visual and olfactory characteristics of prohibited wastes will be an ongoing part of the Transfer Station operation

3.3.1 Waste Receiving and Inspection

All vehicles must stop at the scale house. All refuse transportation vehicles are weighed and the content of the load assessed. Any materials which pose health hazards, cause fire, or which could impact negatively on the environment are deemed unacceptable. The Scale Attendant(s) requests from the driver of the vehicle entering the facility a description of the waste it is carrying to ensure that unacceptable waste is not allowed into the Transfer Station. The Attendant(s) then visually checks the vehicle as it crosses the scale. Signs are conspicuously posted informing users of the acceptable and unacceptable types of waste.

Each day trucks hauling commercial and industrial loads of waste are selected for screening at random on an appropriate percentage basis. Selected vehicles are directed to a separate area where the vehicle will be unloaded. Waste is carefully spread using suitable equipment. An attendant trained to identify wastes that are unacceptable at the Transfer Station inspects the waste discharged at the screening area.

If waste is detected that is suspected to be unauthorized liquid waste (liquids in containers or non-bulk/non-containerized liquids other than household wastes), the attendant will perform a paint filter test on a sample of the suspect waste. The paint filter test will be performed as follows:

- A 1,000 milligram sample of waste will be placed in a conical, 400 micron paint filter.
- If liquid passes through the paint filter in five minutes, the conclusion that the waste contains free liquid will be made.

If unacceptable waste is found, including waste generated from outside the service area, the load will be isolated and secured. The Transfer Station Manager will then notify the designated official shown below of NCDENR Division of Solid Waste Management within 24 hours of attempted disposal of any waste the Transfer Station is not permitted to receive in order to determine the proper course of action (it should be noted that the hauler is responsible for removing unacceptable waste from the property):

Mr Hugh Jernigan
Waste Management Specialist
NCDENR
585 Waughtown Street
Winston-Salem, NC 27107
(336) 771-4600

3.3.2 Record Keeping

The following records are kept on-site to document all inspection:

- The date and times wastes were received for inspection.
- Source and type of waste.
- Vehicle and driver identification.
- All observations made by the inspector.
- Final disposition of waste after inspection.

SECTION 4.0
EROSION CONTROL AND STORMWATER REQUIREMENTS

4.1 EROSION AND SEDIMENT CONTROL

The erosion and sedimentation control features to be used during construction of the Transfer Station will be prepared in general accordance with the North Carolina Erosion and Sediment Control Planning and Design Manual Guidelines (NC Design Manual). A separate "Erosion and Sediment Control Plan" has been approved by NCDENR Land Quality Section. The drawings associated with the Erosion and Sediment Control Plan and the approval letter can be found in the "Erosion Control Approval" section of this Plan. The following erosion and sedimentation control measures are proposed for use during construction: silt fence, temporary diversion channels, temporary sediment traps, temporary construction entrance/exit, and vegetative stabilization (seeding).

4.1.1 Temporary Sediment Traps

The design of a temporary sediment trap is subject to several requirements. The temporary sediment trap must have an approximate sediment storage capacity of 1,800 cubic feet per acre of drainage and a surface area that is approximately one percent of the peak inflow. The design of the proposed temporary sediment traps was performed in general accordance with criteria from the NC Design Manual.

Two temporary sediment traps (ISI Nos. 1 and 2) are proposed for the site, which are capable of passing the 10-year storm with a sediment storage capacity greater than 1,800 cubic feet per acre of drainage and a surface area settling efficiency greater than 75 percent.

4.1.2 Temporary Diversion Channels

Temporary diversion channels are to be installed to divert stormwater runoff into the appropriate temporary sediment trap. Drainage areas to a temporary diversion channel will be minimized as appropriate. The locations of the temporary diversion channels will change as site development proceeds. Temporary diversion channels may be installed in general accordance with the NC Design Manual, Section 6.20.1.

4.1.3 Vegetative Stabilization

Vegetative stabilization shall be in accordance with the seeding schedule in the technical specifications provided in the Erosion Control Plan. The seeding schedule was prepared with reference to the NC Design Manual Sections 6.10 and 6.11, and seeding regimes used in the geographic location.

4.1.4 Silt Fence

Silt fence shall be installed at or outside the clearing limits as shown on the plans prior to land disturbing activity. Silt fence is an adequate runoff control measure, provided that less than 1/4 acre per 100 linear feet (LF) drains to it, according to the NC Design Manual, Section 6.62.1.

4.1.5 Temporary Gravel Construction Entrance/Exit

According to the NC Design Manual, Section 6.06.1, a temporary gravel construction entrance/exit is used to provide a buffer area for vehicles exiting the site to drop mud and sediment to avoid transporting it onto public roads. A construction entrance/exit will be installed on Chimney Rock Road. This entrance will be used during construction until the primary entrance on Burnt Poplar Road is constructed.

4.2 STORMWATER CONTROL

During construction of the Transfer Station, the permanent stormwater control features will be installed. Stormwater runoff from the Transfer Station will be collected in either drop inlets or sheet flow into the on-site permanent stormwater pond. Reinforced concrete pipes (RCP) will divert the water collected in the drop inlets to the on-site permanent stormwater pond. Refer to Drawing C-04, Site Utilities Plan, for the location of the stormwater conveyance system. All unpaved areas will be vegetated or landscaped to minimize erosion and stormwater runoff.

SECTION 5.0
DRAINAGE CONTROL AND WATER PROTECTION REQUIREMENTS

In accordance with Rule .0505(7)(b) and (c), the Transfer Station will be operated so as to prevent water from coming in contact with MSW and to contain and properly discharge collected leachate (wash water)

The tipping floor of the Transfer Station is sloped away from the load-out hoppers and towards the trench drains located along the northern edge of the upper level concrete floor slab (refer to Drawing C-04, Site Utilities Plan). The trench drains will collect any leachate (wash water) generated from washing the tipping floor. These are the only floor drains at the upper level. The drains will be connected by underground piping (not shown on C-04) that goes east out of the building, and then south along the face of the building and into drop inlet #22 (DI-22). From DI-22, flow travels through the grease and grit trap and on to the sanitary sewer. The Transfer Station lower level contains the two drive-through areas for transfer trailer vehicles. Each drive-through area will have trench drains along the entire length to collect wash water. The lower, truck loading level has a segmental weigh scale under each hopper as shown on included Drawing S-03, Transfer Station Truck Load-Out Scale Foundation/Slab Plan. Drainage from beneath the northern-most scale will travel in a trough along the northern edge of the scale and exit the building on the west side, with a direct connection into DI-24. Drainage from beneath the southern-most scale will travel in a trough along the southern edge of the scale, and exit the building on the east side, via direct connection into DI-21. DI-21, 22, 23, and 24 are located immediately outside the building wall line, and are intended to take all flows from the loadout lanes into the sanitary sewer. The combined (upper and lower) flows will travel via an 8-inch sewer line to a gravity sewer along Burnt Poplar Road.

The tipping floor and drive-through areas will be emptied and washed down at the end of each operating day. The upper level trench drains and the lower level driveway drains (or paved channels) shall properly collect any leachate generated and minimize areas of ponded water within the Transfer Station

SECTION 6.0
DISEASE AND VECTOR CONTROL

In accordance with Rule .0505(12)(a), the City shall provide effective disease and vector control measures for the protection of human health and the environment. Disease vectors are defined as any rodent, flies, mosquitoes, or other animals, including insects, capable of transmitting disease to humans.

Control of disease vectors will be maintained by implementation of a daily cleaning program, which involves removal of waste, leachate (wash water), and any ponded water from the facility operating areas. The removal of waste at the end of each operating day will protect against migration of vectors into and from the Transfer Station. The City may also utilize deodorizers, paint, and wash water to keep the tipping floor and drive-through areas clean and free from disease vectors. Stagnant ponded water shall be prevented from occurring to control mosquito breeding. If problems controlling disease vectors persist, the City shall employ a licensed exterminator to control vectors.

Since the Transfer Station is enclosed on all sides, wind-blown trash should not be a major operational concern for the City. Any wind blown trash discovered at the end of an operating day shall be collected and stored in a transfer trailer or an on-site trash bin.

SECTION 7.0
SIGN AND SAFETY REQUIREMENTS

7.1 SIGN REQUIREMENTS

In accordance with Rule .0505(9), the City shall post signs at the Transfer Station entrance indicating operational procedures, hours of operation, tipping fee, and permit number. Signs shall be clearly posted stating that no hazardous or liquid waste will be received. Traffic signs and markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.

7.2 OPEN BURNING OF WASTE

In accordance with Rule .0505(10)(a), open burning of waste shall be prohibited at the Transfer Station

7.3 FIRE PROTECTION EQUIPMENT

In accordance with Rule .0505(10)(b), equipment shall be provided to control accidental fires and arrangements made with the local fire protection agency to immediately provide fire-fighting services when needed. As required by building code, the Transfer Station building will be equipped with a fire suppression system, the appropriate number of fire extinguishers, and fire hydrants.

7.4 NOTIFICATION OF FIRE

In accordance with Rule .0505(10)(c), fires that occur at the Transfer Station require verbal notice to the NCDENR Division of Solid Waste within 24 hours, and written notification shall be submitted within 15 days. Verbal and written notification shall be submitted to the Regional Waste Management Specialist at the address below:

North Carolina Department of Environment and Natural Resources (NCDENR)
Solid Waste Section
P.O. Box 27687
Raleigh, NC 27611-7687
(919) 733-0692

ZONING



City of Greensboro

Date: January 17, 2003
To: Whom It May Concern *WFRJ.*
From: William F. Ruska, Jr., Zoning Administrator
Subject: Public Hearing of the Greensboro City Council Concerning a Special Use Permit for Property Located at the Northwest Intersection of Burnt Poplar Road and Chimney Rock Road

On January 13, 2003, the Greensboro Zoning Commission voted 5 to 2 with one abstention to approve the Special Use Permit for a Refuse and Raw Material Transfer Point at the above noted property. Since a majority but less than six members of the Zoning Commission voted in favor of this request, it will be heard by the Greensboro City Council on Tuesday, February 4, 2003 at 6:00 p.m. in the City Council Chamber, Melvin Municipal Office Building, 300 West Washington Street.

At City Council hearings involving Special Use Permit applications, proponents and opponents are provided a total of 20 minutes each to be heard, notwithstanding the number of persons desiring to speak. Proponents are heard first followed by comments from opponents. Each side may speak for a total of 5 minutes in rebuttal. Individuals have the right to ask witnesses with an opposing viewpoint questions during the rebuttal period.

A Special Use Permit request requires a public hearing where all evidence is presented under oath. Due to the quasi-judicial nature of the hearing, no *ex parte* communication on the conditions is allowed – only evidence in the record at the hearing itself may be considered on these issues. Therefore, the City Council members cannot discuss, or receive, information, either orally or in writing, pertaining to the conditions outside of the public hearing.

Only adjoining property owners and people who spoke at the Zoning Commission meeting are receiving this letter; therefore, you may want to discuss it with other residents who may have an interest in this item. For further information, call the Department of Planning at (336) 373-2144

RECEIVED JAN 21 2003

Agenda

Greensboro City Council

Peri Livingston

REGULAR MEETING
TUESDAY
4 FEBRUARY 2003
6:00 P.M.

1. Moment of Silence
2. Pledge of Allegiance to the Flag
3. Recognition of Courier
4. Council Procedure for Conduct of the Meeting

At hearings involving rezoning applications, proponents and opponents shall be provided a total of twenty (20) minutes notwithstanding the number of persons desiring to be heard. Proponents shall be heard first followed by comments from opponents. Each side may speak a total of five (5) minutes rebuttal.

PUBLIC HEARING ITEMS:

5. Ordinance concerning addition of properties to the Fisher Park Historic Overlay District for the properties located at 904, 906, 908, 910, 912, 905-907 and 915 Olive Street; 200, 210 and 212 East Bessemer Avenue; and 1002 and 1004 Magnolia Street. (roll call vote) (Attachment #5 (PL(Z)03-06) to Council members)
6. Ordinance annexing territory to the corporate limits for property located north of new I-85 and east of and including Rehobeth Church Road—32.45 acres. (roll call vote) (Attachment #6 (PL(P)02-44) to Council members)
7. Ordinance establishing original zoning from County Zoning RS-30 Residential Single Family to City Zoning RS-7 Residential Single Family for property located west of the terminus of Blazingwood Drive north of new Interstate 85. (roll call vote) (Attachment #7 (PL(Z)03-07)
8. Ordinance establishing original zoning from County Zoning RS-30 Residential Single Family to City Zoning RM-8 Residential Multifamily for property located on the east side of Rehobeth Church Road north of new Interstate 85. (roll call vote) (Attachment #8 (PL(Z)03-08 to Council members)

MEMBERS OF COUNCIL

KEITH A. HOLLIDAY, Mayor
YVONNE J. JOHNSON, Mayor Pro Tem
DONALD R. VAUGHAN, At Large
TOM PHILLIPS, At Large

BELVIN J. JESSUP, District One
CLAUDETTE BURROUGHS-WHITE, District Two
ROBBIE PERKINS, District Three
FLORENCE F. GATTEN, District Four
SANDY CARMANY, District Five

Public Hearing Items Continue:

9. Ordinance rezoning property for Special Use Permit for a Refuse and Raw Material Transfer Point for municipal solid waste to be operated in accordance with North Carolina Solid Waste Rules governing in design and operation of the waste facility for property located at the northwest intersection of Burnt Poplar Road and Chimney Rock Road. (roll call vote) (Attachment #9 (PL(Z)03-09) to Council members)
10. Ordinance rezoning property from General Office Moderate Intensity to Conditional Use-Highway Business for all uses in the HB District except: (1) restaurants with drive-thru services, (2) convenience stores with fuel pumps, (3) service stations, and (4) billboards; with various conditions for property located on the west side of Battleground Avenue south of Horse Pen Creek Road and east of Four Farms Road. (roll call vote) (Attachment #10 (PL(Z)03-10) to Council members)
11. Ordinance Amending Chapter 30 of the Greensboro Code of Ordinances with respect to Zoning, Planning and Development, with various amendments to Table 30-4-5-1 pertaining to stadiums. (roll call vote) (Attachment #11 to Council members)
12. Resolution supporting the nomination of James B. Dudley High School and Gymnasium to the National Register of Historic Places (roll call vote) (Attachment #12 to Council members)

CONSENT AGENDA ITEMS

(one vote)

13. Resolution authorizing in the amount of \$109,978 Change Order for Contract No. 2002-01 with MPACO, Inc. for the resurfacing of streets. (Attachment #13 to Council members)
14. Resolution authorizing in the amount of \$250,000 Change Order for Contract No. 2000-08A with Kenneth R. Greene, Utility Contractor, Inc for Sanitary Sewer Rehabilitation Project "E". (Attachment #14 to Council members)
15. Ordinance amending in the amount of \$10,570 State, Federal and Other Grants Fund Budget for participation in the North Carolina Joint Terrorism Task Force (Attachment #15 to Council members)
16. Resolution approving bid in the amount of \$1,228,975 and authorizing Contract No. 2002-56 with ASI RCC, Inc. for the Lake Brandt Dam Renovations. (Attachment #16 to Council members)

BUSINESS ITEMS:

17. Resolution supporting and encouraging the Guilford County Board of Elections to put in place one voting machine in each precinct that is accessible to citizens with disabilities. (roll call vote) (Attachment #17 to Council members)



City of Greensboro

Date: January 24, 2003
To: Ed Kitchen, City Manager
From: C. Thomas Martin, Planning Director
Subject: Zoning Commission Recommendation for a Special Use Permit on a Portion of Property Located at the Northwest Intersection of Burnt Poplar Road and Chimney Rock Road, for Public Hearing Before the City Council Tuesday, February 4, 2003

In the Zoning Commission meeting held on Monday, January 13, 2003, the Commission members present voted 5 to 2 with one abstention to recommend approval of a Special Use Permit for a Refuse and Raw Material Transfer Point on the above noted property. (Ayes: Collins, Haith, Haynes, Higgins, Wright; Noes: McDonnell, Schneider, Abstain: Wolf)

At the January 13, 2003 Zoning Commission meeting, Mr. Ruska stated this request is to obtain a Special Use Permit for a Refuse and Raw Material Transfer Point. The property is zoned Heavy Industrial and this zoning classification permits a Refuse and Raw Material Transfer Point with approval of a Special Use Permit.

SPECIAL USE CONDITIONS FOR THE REQUESTED SPECIAL USE PERMIT

- 1) Uses: The subject property is to be developed and utilized as a municipal solid waste transfer facility as defined by the North Carolina Solid Waste Management Rules [15A NCAC 13B, Section .0101(29)]; "a permanent structure with mechanical equipment used for the collection or compaction of solid waste prior to the transportation of solid waste for final disposal."
- 2) The facility shall be operated in accordance with the North Carolina Solid Waste Rules governing the design and operation of the waste facility [15A NCAC 13B, Sections .0401 and .0402].
- 3) As a minimum, the facility shall: (a) only operate in accordance with regulatory approved plan; (b) only accept waste for which it is approved; (c) manage water that comes into contact with the solid waste on-site or properly treat prior to permitted discharge; (d) maintain equipment for fire control; (e) apply effective vector control measures to control flies, rodents, and other insects or vermin; (f) provide equipment to maintain the facility in a sanitary condition; and (g) utilize appropriate methods to confine materials subject to be blown by wind within the area.

- 4) At the conclusion of each day of operation, all windblown material resulting from the operation shall be collected and returned to the area by the owner or operator.
- 5) In addition, the facility shall be secured (e.g. enclosed by fence, security lighting, security surveillance system).

DESCRIPTION OF THE PROPERTY, SURROUNDING LAND USE AND ZONING

This property consists of approximately 9.5 acres and is located at the northwest intersection of Burnt Poplar Road and Chimney Rock Road

	<u>Zoning</u>	<u>Land Use</u>
Subject Property	HI	Vacant land
North	HI	Tank farm
East	HI	Tank farm
South	HI	Milan Express
West	HI	Vacant land

Acting Chairman Higgins asked if there was anyone who wished to speak in favor of this item.

Jeryl Covington, Director of Environmental Services Departments for the City of Greensboro, stated the Environment Services Department was presenting information to support the issuance of this Special Use Permit for the property located at 6310 Burnt Poplar Road to serve the City of Greensboro. In 2001, the Greensboro City Council adopted a motion to actively pursue an alternative operation for the utilization of the White Street Landfill. Staff has followed this directive and has worked with Council and various neighborhoods to develop a plan that could be adopted and address the management of the community's generated solid waste. Staff evaluated opportunities to introduce new technologies for Solid Waste Management, considered relocation and siting of a new landfill, continued to work with the Guilford County officials in the identification of a regional solution and coordinated a site visit to a neighboring community who had found a solution by transferring waste from their community to a regional landfill. The property for which they had come before the Commission to request the issuance of a permit is proposed to be developed as Solid Waste Transfer Station to manage a portion of the waste that is currently managed by the White Street Landfill. This type of Waste Management operation is currently regulated by the NC Department of Environment and Natural Resources, Waste Management Division. On our development of this facility, the City of Greensboro will submit an application of our design and managing operating plan to the regulatory agency. They will, in turn, review the application and, if appropriate, issue a permit for operation.

In considering the location for the Solid Waste Transfer Station within our community, the Department considered some primary factors, which she enumerated. In addition to the primary factors identified, the Department considered compliance with current City of Greensboro standards for traffic impacts, water quality protection, and environmental concerns.

As reported the White Street Landfill receives an average of 11,289 vehicles per month for the entire operating facility. The flow average is approximately 470 vehicles per day. Their consultant dissected the traffic volumes by waste types to consider the highest volumes. From this evaluation the municipal solid waste portion of the traffic into the landfill accounted for approximately 40 percent of this volume.

Based upon the Transportation Department's evaluation of the traffic flow, it was determined that the proposed transfer station developed at the Burnt Poplar Road site would not be required to complete a traffic impact study. She showed where roadway improvements would be made in order to move the materials in and out of the facility without using low capacity roadways to transport these commodities.

The NC Division of Water Quality advised that the site is not subject to the Randleman Lake Water Supply Regulations including the protection and maintenance of the riparian areas and stormwater requirements. However, these exemptions do not exclude the site from complying with the City of Greensboro Development Ordinance in regard to water quality.

The City of Greensboro proposes to develop the property at 6310 Burnt Poplar Road as a Municipal Solid Waste Transfer Facility as defined by the NC Solid Waste Management Rules. The primary purpose of the operation is to transfer solid waste from our collection vehicles into tractor-trailers to dispose and transport outside of Guilford County.

The facility shall maintain fire control equipment and apply effective vector control measures to control flies, rodents, and other insects and vermin in order to maintain the sanitary conditions of the site. The facility will utilize appropriate methods to confine materials subject to wind blown and the site will be developed as a secured facility. The solid waste operations will be conducted within the confines of the structure with the possible exception of a customer convenience, which will only allow small vehicles and volumes of waste to be deposited within containers located on the site. This disallows the co-mingling of large and small vehicles and large and small volumes of waste to be managed at the facility.

As a visual portion of her presentation, Ms. Covington showed illustrations of Solid Waste Transfer Facilities. She explained some of the illustrations.

Based upon the NC Department of Environment and Natural Resources Data Base of August 28, 2002, the State has currently permitted 82 transfer station sites with an operation in North Carolina. The Environmental Services Department respectfully

requests your full support of the Special Use Permit for the property located at 6310 Burnt Poplar Road in order to secure a final operating location for the management of waste for the City of Greensboro.

Acting Chairman Higgins asked if there was anyone who wished to speak in opposition to this item.

Gary Beaver, Esq., 10 Silver Oak Court, stated he was an attorney with Adams Kleemeier. He said he was present on behalf of his clients Joe McKinney and John Lamberth. Joe McKinney and John Lamberth own the property right across the street from the proposed Transfer Site. Milan Trucking is their tenant at that property. The lease expires with Milan Trucking in the year 2004. He was not sure the year the proposed Transfer Station is supposed to come on line, but as you can imagine, it may be very difficult to rent their property to other tenants after a Transfer Facility is across the street with the heavy traffic and the smell, the hours of operations, some of those things going on.

Attorney Beaver said he was here today to not really ask the Commission to vote against it, but rather to postpone the decision for 30 days so they can get more information. His clients only recently learned of this proposed plan and would like to find out more about the impact on them, what their alternatives are, and make sure that the Commission is fully informed as well about what impact will occur on the neighboring properties. Certainly these facilities do not enhance the value of neighboring properties, and he felt the Commission would want full information about the impact on the folks that are surrounding that property. It does not look like there would be much on the tank farm, but certainly somebody who is running a business across the street should expect that they are going to have some problems, if there is heavy truck traffic and the odor of garbage. Therefore, they would request the Commission to give them 30 more days in which to gather that information and make sure they get the information the Commission should have before it makes its decision. They feel they need more information, especially as to traffic, before they could see the full impact of the Solid Waste Transfer Station on neighboring property. He said a facility of this type would attract birds and would be near the airport. He did not know if anyone had taken this into consideration.

Having just learned about this, they do not know how a Transfer Station operates and whether there would be other hazards that might occur as well with respect to the tank farm. He said he knew a landfill has methane, but he was not sure what the fire hazards are at a transfer station, but he did see that one of the conditions was to make sure that they had fire equipment. Therefore, he suspected they anticipate some fire hazard. Those are the kinds of questions that they would ask the Commission to allow them to examine and come back to the Commission with some information about the potential adverse impact on the neighbors, particularly them.

Mr. Martin said even though this was not a rezoning, the zoning, staff follows the same procedure.

Mr. Ruska said staff notified everybody who owned property within 600 feet of the boundary of the proposed Special Use Permit.

Mr. Martin said the letters were mailed on December 31st, which was the normal 13 days prior to the Zoning Commission hearing and is the normal process, even though this site has had a lot of publicity. It has been in the news for quite awhile as to the site that was selected and under option by the City.

Ms. McDonnell asked when opponents come up and talk about changing the use or potentially changing the use of specific property, one of the things she was particularly interest in is, has there been any inquiry on the part of the applicant to see what the impact would be on the neighbors. In this particular situation, has there been any attempt on the part of the City to inquire about what the impact would be on the neighbors?

Mr. Martin said he thought Ms. McDonnell should ask the applicant that. But he did know that he had been involved in a lot of discussions on it and clearly if we thought it was going to impact the area, they would not have selected the site as one to do it. Heavy Industrial is the highest intensity land uses that you have. If there is going to be a site for a transfer station in Greensboro, you probably could not pick a better location than this particular one, especially with their traffic, road improvements, and with the nature of the land uses around it. Ms. Covington, when she comes back for rebuttal, can address that question further.

Mr. Martin stated this is a request for a Special Use Permit. We have dozens of uses that are permitted, but only with the Special Use Permit that has special conditions and those are the conditions spelled out, can a solid waste transfer station be permitted.

Acting Chairman Higgins asked Ms. Covington if she would like to speak in rebuttal.

Ms. Covington said the leading factor of impacts in the neighborhood is actually traffic and that is why they did a consideration of the traffic study. They introduced this to our Traffic Department. Primarily the Transfer Station is a Waste Transportation Center. Basically, the waste is taken from the small residential collector trucks and transferred into tractor-trailers. Waste is not contained on site or maintained on site overnight. The waste that is brought at the beginning of the day is actually deposited into a transfer station and it is removed from the site and taken to a final disposal location, so the site is actually cleaned at the end of the day and washed down so it is just an empty building. It is much like what you see in those photographs. There is no waste that is remaining in the facility.

There was a question about fire. The reason they have fire protection is because when they pick up waste from residential communities, oftentimes people will throw away items that are not completely extinguished of fire burning material. Oftentimes they will have some smoldering charcoal, will have some cigarettes, and those are the reasons why we have fire protection on the solid waste collection vehicles because oftentimes they will have a fire in the back of the hopper that they will have to contain. In order to make

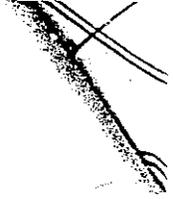
sure we have a safe environment for our transfer station, if those materials got into a transfer station, we need to be able to extinguish those fires very quickly because basically a majority of the waste that comes in is of an ignitable content and so that would be able to be maintained. That is why they require those fire protection measures on site.

Another thing brought up was the generation of methane. This is not a landfill. This is actually a transfer station. There will be no breaking down of waste at the facility because the waste is actually going to be transferred from a collection vehicle to a tractor-trailer. In order for methane to be generated, there has to be a decomposition process. The reason we are in the solid waste business is for the health of the community. This is based upon the generation lifespan of a fly so you need to make sure you manage the waste so that it does not have a life span that a fly can reproduce in a number of days. Therefore, this is not a holding facility, but for transfer only and would be cleaned each day.

Ms. Covington said the City has been talking about going to a transfer station since 2001. They actually identified two locations in the City, one being located across the street from where her operations are located on Patton Avenue, and that was denied by City Council many months ago. They always identify the western corridor. On July 23, 2002 they did another presentation to Council. This was a public meeting, the media was there, and she presented information on making a recommendation for going to a transfer station. They presented the site and identified it on December 11, 2002 and this was at a work session with Council. It has received a lot of publicity and advertisement in the media. She said they do believe there has been enough time in advertising this that the community was aware of the transition from the White Street Landfill. She would propose that a final determination be made on the Special Use Permit instead of determining that we need to have another 30 days of study on this Permit Request.

Attorney Beaver, in rebuttal, said he would like to respond to the last part about the notice issue. He knew Mr. Martin had been working hard on this and he appreciated the difficulties the City is having in trying to find a Transfer Station and they have been working on these things since about 2001. The point they are making is, regardless of what they have been doing, they have not been talking to his clients. His clients' first notice was getting something in the mail last week. It is not hard to see who is across the street. It is not difficult to walk across the street to say hello, who owns this piece of property or check the records to see who owns the property, contact them, and tell them that this is what the City is thinking about doing. That was not done, the first notice was what they received last week. He said his clients were asking for a little more time to examine this, see what the impact will be on them, so they can inform the Commission about that impact. This certainly is something that is going to adversely affect the property across the street. Before the Commission makes a decision, they should make sure they understand what the potential consequences of that area.

Mr. Martin said that the Planning Department recommends that this Special Use Permit be approved. This property is surrounded by Heavy Industrial zoning and, for the most part, is surrounded by petroleum tanks. The site has good road access, featuring good



sight distance and convenient access to the proposed Urban Loop. The solid waste transfer facility will be operated in accordance with North Carolina Solid Waste Rules governing the design and operation of the facility and must operate in accordance with a regulatory approved plan. Conditions in the application address issues relating to the maintenance of sanitary conditions, confinement and collection of materials, and security of the facility. He added that this property would actually be cleaner than the other heavy industrial sites around it just simply because of what regulations are placed upon these type facilities.

In response to a question, Mr. Martin said these trucks would be permitted to drive on the Scenic Corridor since they are regular refuse trucks. This will not be a maintenance facility. The trucks will go back to Patton Avenue.

Ms Covington said the City Council had prohibited their looking in the eastern portion of the City for a Transfer Station and directed them to look in the western portion.

Mr. Martin said the plan may be to see how this works, and it may be that one Transfer Station can serve the whole City, just like all the trucks currently go to one location on the east. If not, then down the road the City would look to site one somewhere else.

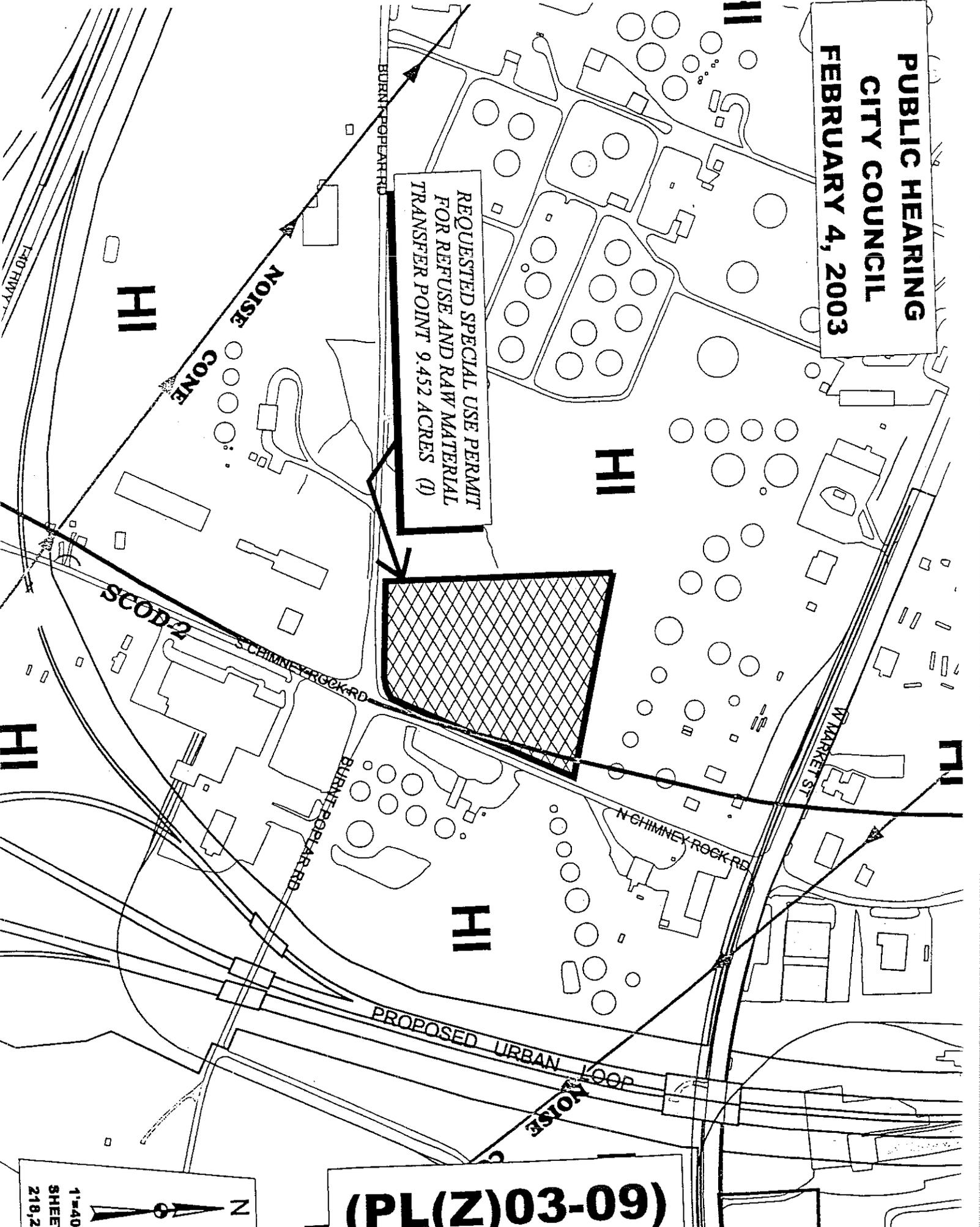
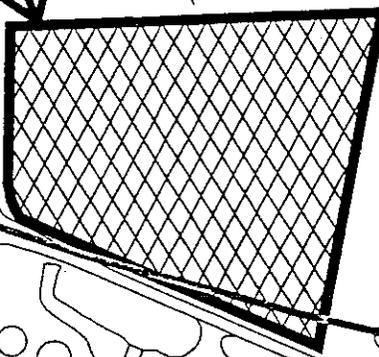
Mr. Haynes moved that the ordinance granting a Special Use Permit for use of this property for a Refuse and Raw Material Transfer Point be approved based on the following findings of fact: The use will not materially endanger the public health or safety if located where proposed because there are no health or safety concerns inherent in the proposed use of the property for a Refuse and Raw Material Transfer Point on a tract that is surrounded by heavy industrial land uses; That the use will meet the restriction(s) imposed by the applicant which state that the facility will be operated in accordance with North Carolina Solid Waste Management rules and shall operate only in accordance with the regulatory approved plan; The use will not substantially injure the value of adjoining or abutting property because all surrounding property is presently zoned Heavy Industrial; The location and character of the use will be in harmony with the area in which it is to be located and in general conformity with the plan of development of the City and its environs because the use of the property as a transfer station is compatible with adjacent and surrounding tank farm land uses; seconded by Mr. Collins. The Commission voted 5-2-1 in favor of the motion. (Ayes: Higgins, Wright, Collins, Haith, Haynes. Nays: Schneider, McDonnell; Abstain: Wolf.)

A map (PL(Z) 03-09) of the requested Special Use Permit is attached.

attachment

**PUBLIC HEARING
CITY COUNCIL
FEBRUARY 4, 2003**

**REQUESTED SPECIAL USE PERMIT
FOR REFUSE AND RAW MATERIAL
TRANSFER POINT 9.452 ACRES (1)**



**1"=400'
SHEET:
218,281**

(PL(Z)03-09)

9
03-30

**AMENDING OFFICIAL ZONING MAP AND
AUTHORIZING ISSUANCE OF SPECIAL USE PERMIT**

NORTHWEST INTERSECTION OF BURNT POPLAR ROAD AND CHIMNEY ROCK ROAD

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GREENSBORO:

Section 1. The Official Zoning Map is hereby amended by the issuance of a Special Use Permit authorizing use of the property described below for a Refuse and Raw Material Transfer Point in a Heavy Industrial District (subject to those conditions and limitations as set forth in Section 2, 3, and 4 of this ordinance):

BEGINNING at a point in the western right-of-way line of Chimney Rock Road, said point being the southeast corner of APAC Carolina, Inc. (ACL 94-7029-929W-07); thence along said western right-of-way line S24°56'50"W 710.63 feet to point; thence along a curve to the right a chord course and distance S59°22'30"W 22.61 feet to a point in the northern right-of-way line of Burnt Poplar Road; thence along said northern right-of-way line N86°12'W 387.83 feet to a point, said point being the southeast corner of Louis Dreyfus Energy Corporation (ACL 94-7029-960-06); thence along the line of Louis Dreyfus Energy Corporation N01°39'30"E 861.90 feet to a point, said point being the southwest corner of said APAC Carolina, Inc.; thence along the line of said APAC Carolina, Inc. S75°48'30"E 704.41 feet to the point and place of BEGINNING, containing 9.38 acres more or less.

Section 2. That the issuance of a Special Use Permit is hereby authorized subject to the following conditions:

- 1) Uses: The subject property is to be developed and utilized as a municipal solid waste transfer facility as defined by the North Carolina Solid Waste Management Rules [15A NCAC 13B, Section .0101(29)]; "a permanent structure with mechanical equipment used for the collection or compaction of solid waste prior to the transportation of solid waste for final disposal."
- 2) The facility shall be operated in accordance with the North Carolina Solid Waste Rules governing the design and operation of the waste facility [15A NCAC 13B, Sections .0401 and .0402]
- 3) As a minimum, the facility shall: (a) only operate in accordance with regulatory approved plan; (b) only accept waste for which it is approved; (c) manage water that comes into contact with the solid waste on-site or properly treat prior to permitted discharge; (d) maintain equipment for fire control; (e) apply effective vector control measures to control flies, rodents, and other insects or vermin; (f) provide equipment to maintain the facility in a sanitary condition; and (g) utilize appropriate methods to confine materials subject to be blown by wind within the area.
- 4) At the conclusion of each day of operation, all windblown material resulting from the operation shall be collected and returned to the area by the owner or operator.
- 5) In addition, the facility shall be secured (e.g. enclosed by fence, security lighting, security surveillance system).

Section 3 For use as a Refuse and Raw Material Transfer Point, this property will be perpetually bound and subject to the conditions imposed in Section 2, unless subsequently changed or amended, or until such time as this Special Use Permit shall expire or the permitted activity shall be discontinued, as provided for in Chapter 30 of the Greensboro Code of Ordinances. Final plans for any development to be made pursuant to this Special Use Permit shall be submitted to the Technical Review Committee for approval.

Section 4. Any violations of, or failure to accept, any conditions and limitations imposed herein shall be subject to the remedies provided in Chapter 30 of the Greensboro Code of Ordinances.

The foregoing ordinance was adopted by the City Council of the City of Greensboro on the 4 day of Feb, 2003 and will become effective immediately upon its publication. This the 13 day of Feb, 2003

Juanita F. Cooper
City Clerk

COUNCIL SUMMARY FOR FEBRUARY 4, 2003

- All agenda items were adopted except Items #10 and 11
 - Item #10 was continued to the February 18, 2003 meeting of Council
 - Item #11 was defeated. Council discussed with the City Attorney the legal requirements and process involved with placing this item on the 2003 ballot for consideration by Greensboro citizens.
- The Council adopted motions to reconsider at the March 18, 2003 City Council meeting the *Resolution authorizing City Attorney to institute proceedings to condemn portion of property of Carriage Crossing in connection with the Wagon Wheel Commons Project*, which was adopted by Council at the January 7, 2003 meeting of Council. (see concerns)
- In keeping with his desire to recognize special City employees, the City Manager recognized retired Greensboro Police dog, Bear, and his former partner and current owner, Police Officer Brett Davis. Mr. Kitchen noted Bear had recently received the 2002 Award for Canine Excellence in Law Enforcement (ACE) from The American Kennel Club; he reviewed Bear's extraordinary and unique accomplishments while serving as a member of the Police Department's Canine Unit and presented Bear with special gifts from the City.
- Individual members of Council and the Manager commended staff in the following departments for their professionalism and for their efforts to provide assistance in addressing various needs, issues and concerns in the community: Engineering & Inspections, Environmental Services, Legal, Planning, Police, Legal and Transportation,
- Council discussed with Assistant City Manager Mitch Johnson the status of Barber Park improvements and whether plans for the Park could be adjusted at this stage of the process to expand the building to provide additional space for tennis courts.
- In response to a letter Councilmember Perkins had received from County Commissioner Linda Shaw, Council agreed they were not interested in building a complex on a site at Eugene and Lee Streets and leasing/selling the Municipal Building to the County.
- Council received an update with regard to the Aycock Neighborhood Master Plan from David Horton, representing that Neighborhood's Association
- Ben Holder, expressed concern with ongoing problems in the Randleman Road area. (Staff has provided Council with a report with regard to areas of concern.) He offered his personal opinion as to how the City should address various illegal activities in the area. After some members of Council discussed with the City Attorney the feasibility of the District Attorney invoking the nuisance provision to address problems with some area businesses, Councilmember Vaughan spoke to the combined law enforcement efforts involved with this process and noted the DA's office was already at work in this area

- Council took action with respect to boards and commissions.
- Members of Council discussed individual events and issues of interest to the community
- The Guilford County Legislative Delegation will hold a public meeting to receive input from the community on Thursday, February 27, 2003, beginning at 6:00 p.m. in the Council Chambers

CONCERNS:

Please provide a copy of your report/findings to Juanita Cooper.

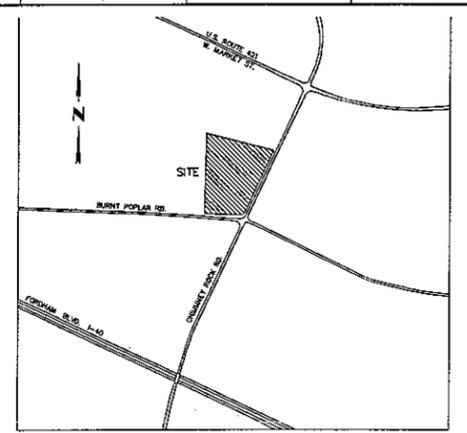
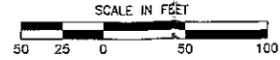
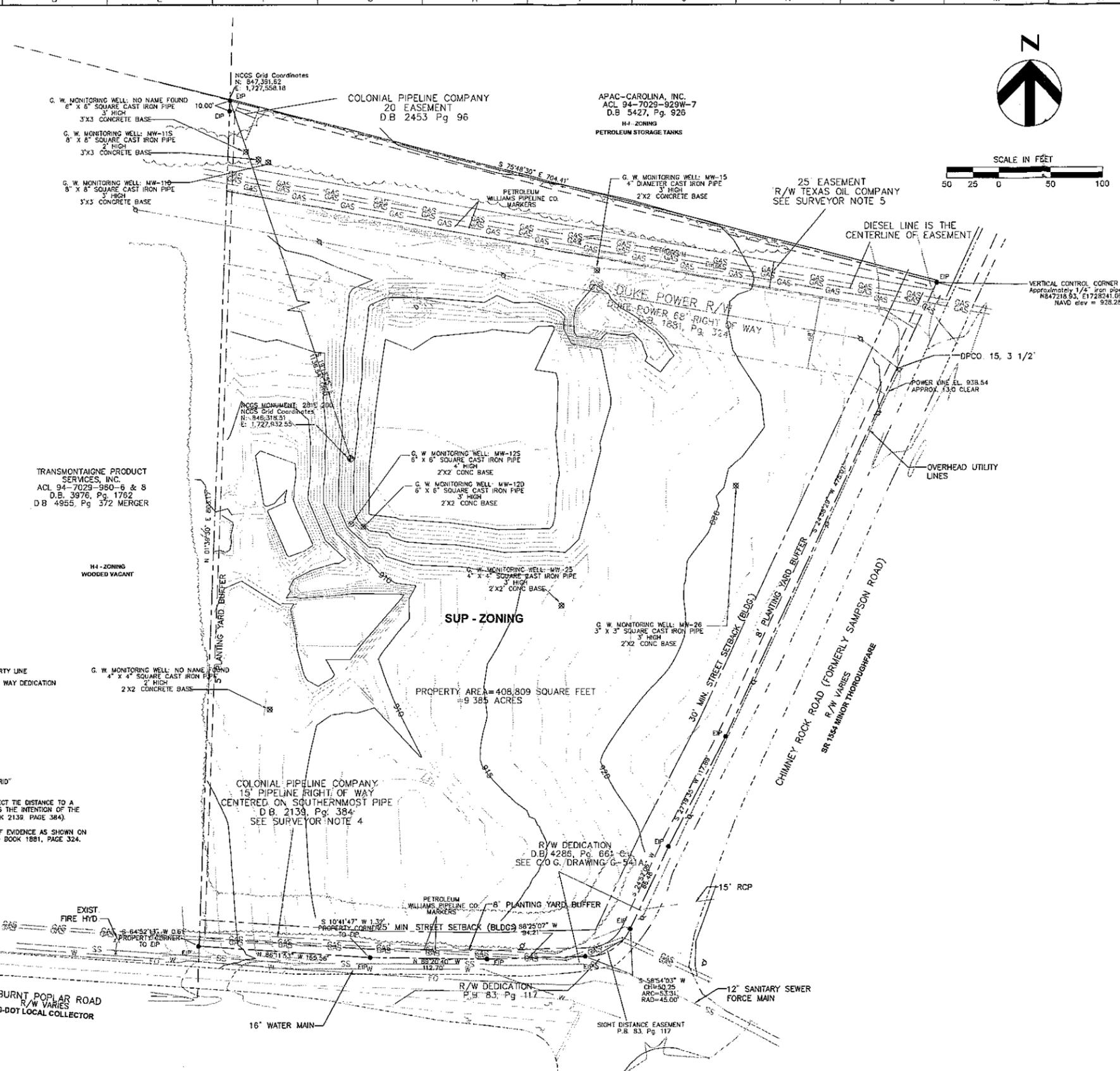
➤ Lutie Graham, 204 Leftwich Street, noted problems in this block with regard to solid waste pickup, parking and speeding traffic. The Manager advised that because the concerns involved multiple City departments, Assistant City Manager Johnson would coordinate efforts to investigate and address Ms. Graham's concerns.

➤ Council directed staff to work with the developer and Carriage Crossing residents to try to address concerns and develop additional alternatives for consideration prior to the reconsideration of this matter at the March 18 Council meeting.

FACILITY DRAWINGS

C:\WINL .770001.018\06770110.018C-1.DWG, Layout1, 9/16/2004 3:09:04 PM, ghunevcu

C:\TEMP\DWG\06770110.018\06770110.018C-1.DWG
 06-08-04 JPH/MS 12/47/10



LOCATION MAP (NOT TO SCALE)

- NOTE:
1. ALL BOUNDARY AND TOPOGRAPHIC INFORMATION WAS TAKEN FROM A SURVEY BY DAVID BOUTWELL PLS CITY OF GREENSBORO DATED 6/16/03 AND 6/07/04
 2. "ENVIRONMENTAL ASSESSMENT" DATED SEPTEMBER 2003 WAS BY PREPARED BY HDR ENGINEERING INC. OF THE CAROLINAS FOR THE CITY OF GREENSBORO.

SURVEYOR LEGEND

- EXISTING IRON PIPE (EIP)
- NEW IRON PIPE (NIP)
- CALCULATED POINT
- ⊙ NOCS MONUMENT
- ⊗ GROUND WATER MONITORING WELL
- ⊕ POWER POLE
- PL— PROPERTY LINE
- UNSURVEYED PROPERTY LINE
- PLAT LINE/RIGHT OF WAY DEDICATION
- GAS LINE
- POWER LINE
- EDGE OF PAVEMENT
- GRAVEL ROAD
- 910— CONTOUR LINE
- TREE LINE

- SURVEYOR NOTES:
1. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES UNLESS NOTED "GRID"
 2. COMBINED GRID FACTOR: 0.9999749
 3. ALL AREAS DETERMINED BY COORDINATE COMPUTATION
 4. WRITTEN DESCRIPTION OF THE EASEMENTS APPEAR TO HAVE AN INCORRECT TIE DISTANCE TO A PROPERTY CORNER. THE EASEMENT, AS SHOWN ON THIS MAP REFLECTS THE INTENTION OF THE DEED AS DEPICTED ON THE MAP RECORDED WITH THE DEED (DEED BOOK 2138 PAGE 384). THE EASEMENT IS CENTERED ON THE SOUTHERNMOST PIPE.
 5. 25' TEXAS OIL COMPANY EASEMENT IS SHOWN BASED ON THE INTENT OF EVIDENCE AS SHOWN ON PROPERTY MAPS RECORDED IN DEED BOOK 1301, PAGE 391, AND DEED BOOK 1881, PAGE 324. EASEMENT IS CENTERED ON PIPELINE LABELED "DIESEL".

A	ISSUED FOR NCDENR SOLID WASTE PERMIT	9/15/04	GRH	GJH	GJH	JCR
Issue No.	Description	Date	Drawn	Chkd.	Checked	Appr.

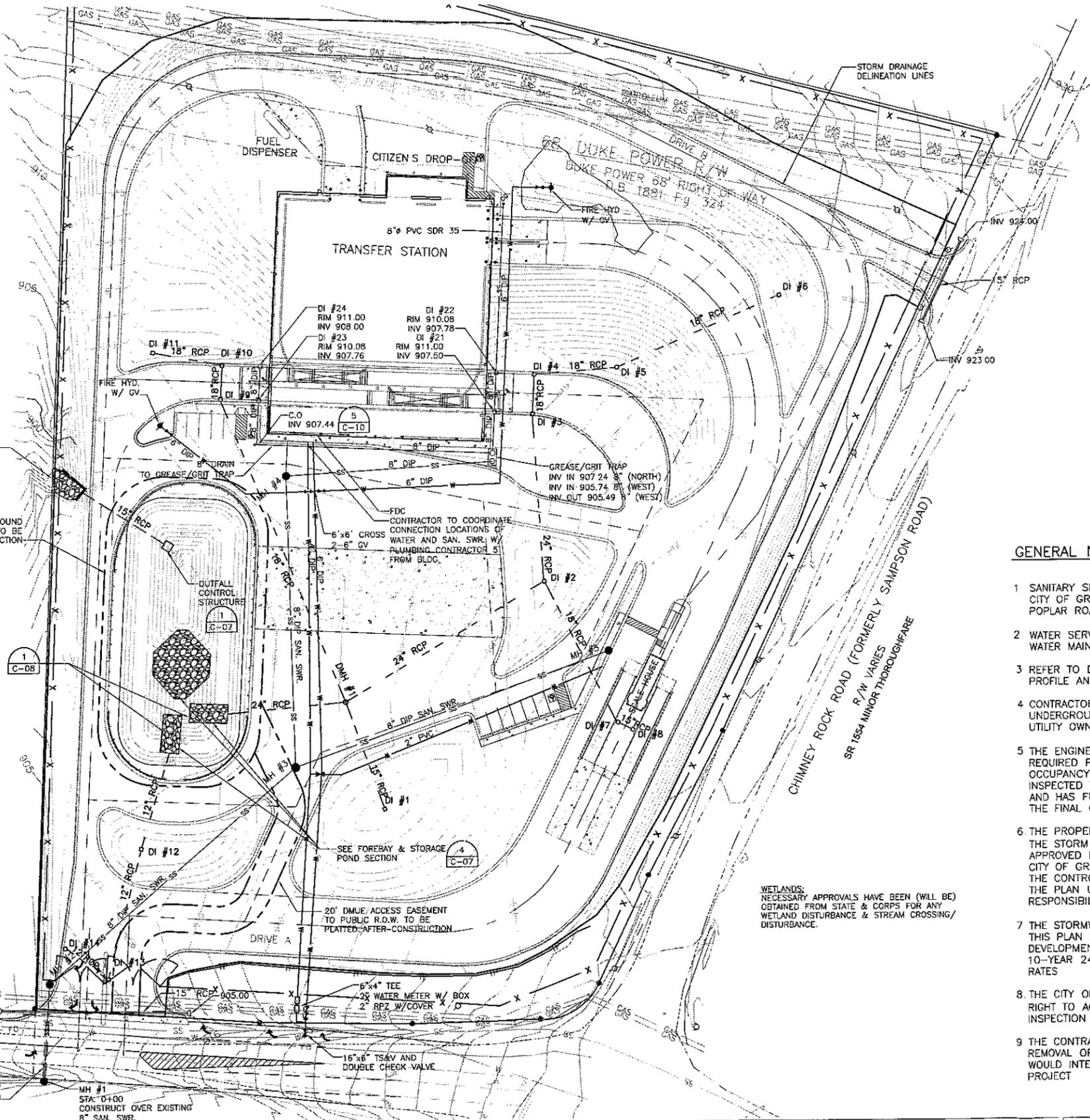
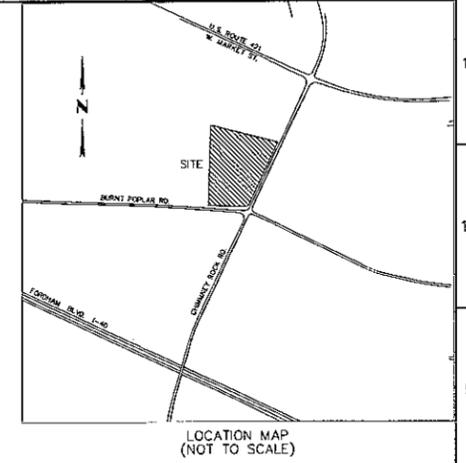
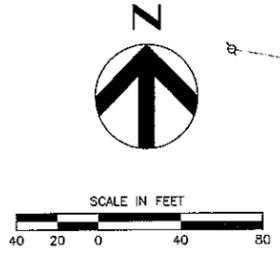
HDR
 HDR Engineering, Inc.
 Suite 1400
 128 S. Tryon Street
 Charlotte, NC 28202-5006
 OUR LENGTH OF SERVICE
 STANDING RECORD OF HONORABLE SCALE ACCURACY.

Project Manager	G. Hetzler, PE
Designed	P. Westmoreland
Checked	G. Hetzler, PE
Drawn	G. Hunevcu

**CITY OF GREENSBORO
 TRANSFER STATION**

Existing Conditions

Date	SEPTEMBER 2004	Project No.	06770-2707-018	Drawing No.	C-01	Sheet	A
Scale	SCALE: 1" = 50'	File Name	C-1.DWG				



Inspection	Maintenance (times)	Corrective Action/Adviser	Comments (date and initials)
WET DETENTION POND BWP INSPECTION/CORRECTIVE MAINTENANCE CHECKLIST			
REGULATED WETLANDS TO BE INSPECTED BY THE OWNER QUARTERLY, AND THREE PER MONTH AFTER A MAJOR STORM EVENT.			
Wetland Area is free of obstructions		Remove any debris or obstructions	
Wetland area is free of silt and debris		Remove any silt or debris	
Wetland area is free of vegetation		Remove any vegetation	
Wetland area is free of erosion		Repair any erosion	
Wetland area is free of sediment		Remove any sediment	
Wetland area is free of pollutants		Remove any pollutants	
Wetland area is free of illegal dumping		Remove any illegal dumping	
Wetland area is free of illegal structures		Remove any illegal structures	
Wetland area is free of illegal activities		Remove any illegal activities	
Wetland area is free of illegal parking		Remove any illegal parking	
Wetland area is free of illegal storage		Remove any illegal storage	
Wetland area is free of illegal disposal		Remove any illegal disposal	
Wetland area is free of illegal burning		Remove any illegal burning	
Wetland area is free of illegal dumping		Remove any illegal dumping	
Wetland area is free of illegal structures		Remove any illegal structures	
Wetland area is free of illegal activities		Remove any illegal activities	
Wetland area is free of illegal parking		Remove any illegal parking	
Wetland area is free of illegal storage		Remove any illegal storage	
Wetland area is free of illegal disposal		Remove any illegal disposal	
Wetland area is free of illegal burning		Remove any illegal burning	

GENERAL NOTES

- SANITARY SEWER TO BE CONNECTED TO A PROPOSED CITY OF GREENSBORO GRAVITY SEWER LINE ON BURNT POPLAR ROAD
- WATER SERVICE TO BE CONNECTED TO AN EXISTING 16" WATER MAIN ON BURNT POPLAR ROAD
- REFER TO DRAWING NO. C-06 FOR SANITARY SEWER PROFILE AND STORM WATER PROFILE
- CONTRACTOR TO VERIFY LOCATION OF EXISTING UNDERGROUND UTILITIES AND COORDINATE WITH THE UTILITY OWNER PRIOR TO CONSTRUCTION
- THE ENGINEER'S CERTIFICATION OF COMPLETION WILL BE REQUIRED PRIOR TO THE FINAL PLAT OR CERTIFICATE OF OCCUPANCY. THE STORM WATER CONTROL IS TO BE INSPECTED TO ENSURE IT IS FUNCTIONING AS DESIGNED AND HAS FULL DESIGN VOLUME PRIOR TO ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY
- THE PROPERTY OWNER IS RESPONSIBLE FOR MAINTAINING THE STORM WATER CONTROL(S) ACCORDING TO THE APPROVED MAINTENANCE PLAN AND DIRECTION OF THE CITY OF GREENSBORO. THE CONTRACTOR SHALL MAINTAIN THE CONTROLS DURING CONSTRUCTION AS REQUIRED BY THE PLAN UNTIL THE OWNER RESUMES FINANCIAL RESPONSIBILITY AFTER PROJECT COMPLETION
- THE STORMWATER CONTROL STRUCTURE(S) SHOWN OF THIS PLAN IS DESIGNED TO REDUCE THE POST DEVELOPMENT 2-YEAR 24 HOUR STORM EVENT AND THE 10-YEAR 24 HOUR STORM EVENT TO PRE DEVELOPMENT RATES
- THE CITY OF GREENSBORO AND THEIR ASSIGNS HAVE RIGHT TO ACCESS THE STORM WATER CONTROL(S) FOR INSPECTION OR MAINTENANCE AS NECESSARY
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXISTING UNDERGROUND UTILITIES THAT WOULD INTERFERE WITH THE CONSTRUCTION OF THIS PROJECT

WETLANDS: NECESSARY APPROVALS HAVE BEEN (WILL BE) OBTAINED FROM STATE & CORPS FOR ANY WETLAND DISTURBANCE & STREAM CROSSING/DISTURBANCE.

Issue No.	Description	Date	Drawn	Checked	Responsible	Project Mgr.
A	ISSUED FOR NCDENR SOLID WASTE PERMIT	9/15/04	GRH	GJH	GJH	

HDR
HDR Engineering Inc.
Suite 1400
128 S. Tryon
Charlotte, NC 28202-5009
SEE LEGEND ON DRAWING FOR THE MEANING OF THE BOXES.
DATE PLOTTED: 09/15/04

Project Manager	J. C. READLING, PE
Designer	G. Hetzler, PE
Design Checker	P. Westmoreland
Checker	C. Hetzler, PE
Drawn	G. Huneycutt

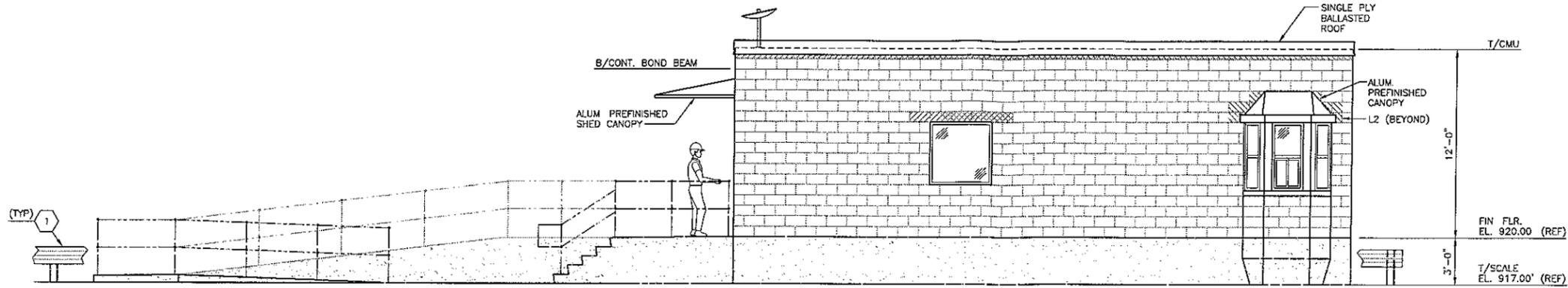
**CITY OF GREENSBORO
TRANSFER STATION**

Site Utilities Plan

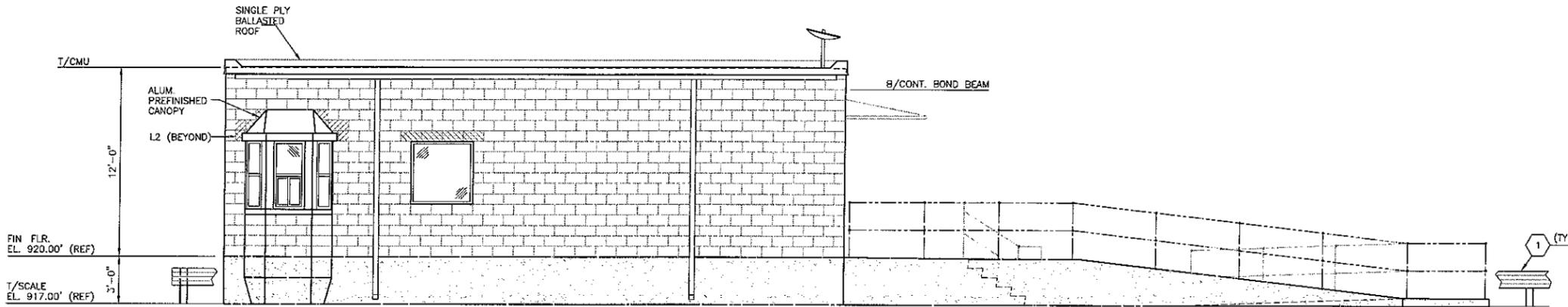
Date	SEPTEMBER 2004	Project No.	06770-2707-018	Drawing No.	C-04	Issue	A
Scale	SCALE: 1" = 40'	File Name	C-4.DWG				

J770001.01806770110.018.C-4.DWG, Layout1, 9/16/2004 3:10:45 PM, ghuneycu

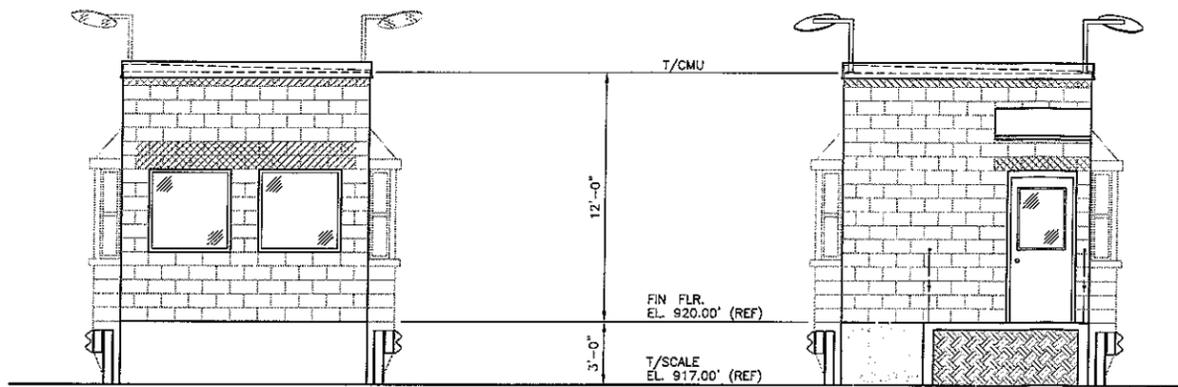
C:\WIN1 5770001.018\06770110.018\A031.DWG, Layout1, 9/16/2004 3:21:54 PM, ghunevcu



WEST ELEVATION



EAST ELEVATION



SOUTH ELEVATION

NORTH ELEVATION

GENERAL NOTES:
 A. SEE S-30" SERIES SHEETS FOR STRUCTURAL INFORMATION
 B. SEE SHEET A-32 FOR EQUIPMENT SHOWN ON ELEVATIONS

KEY NOTES:
 1 STANDARD ROADWAY GUARDRAIL (SEE CIVIL DRAWINGS AND STANDARD DETAILS).

LEGEND:
 [Hatched Box] INDICATES LINTEL OR CONTINUOUS BOND BEAM, SEE STANDARD DETAILS.

Rev. No.	Description	Date	Drawn	Chkd.	App. Engr.	Proj. Mgr.
A	ISSUED FOR NCDENR SOLID WASTE PERMIT	9/15/04	DMP		SWJ	JCR



Suite 1400
 128 S. Tryon Street
 Charlotte, NC 28202-5009

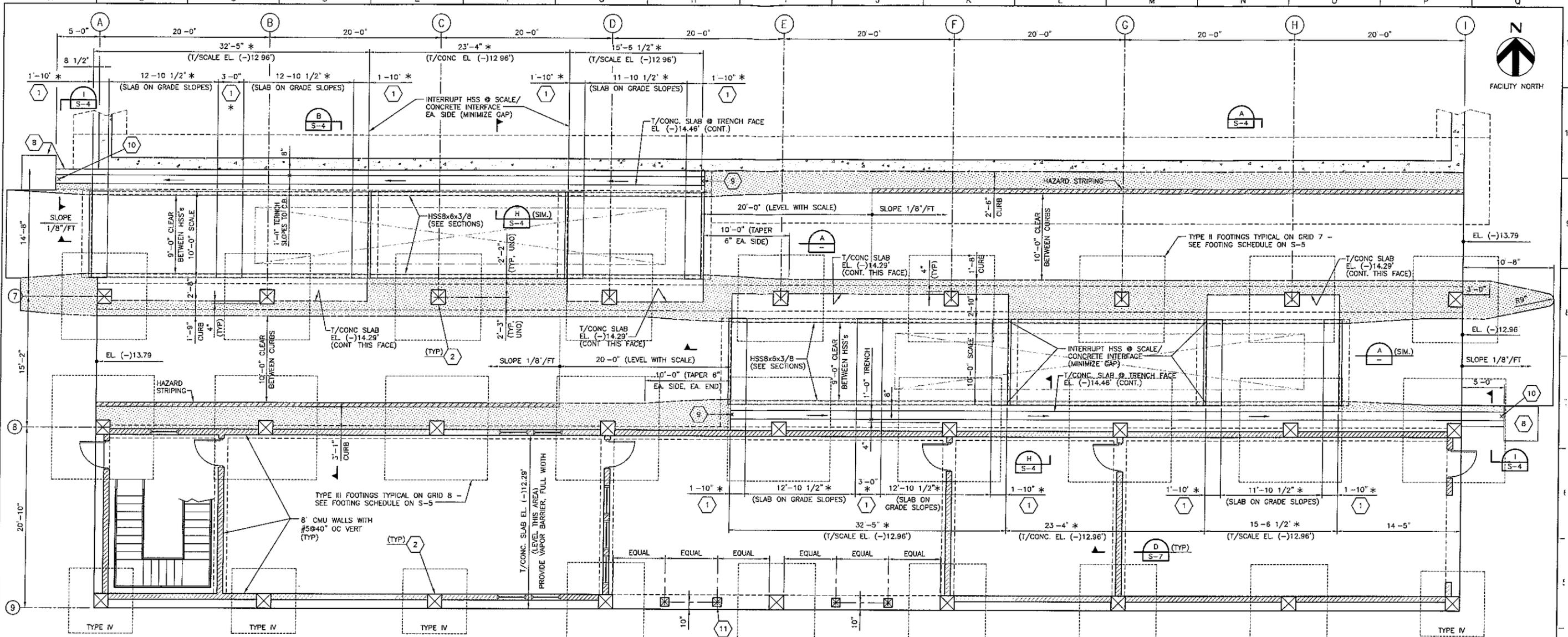
Project Manager
 S. Jantzen
 Designer
 Checked
 Drawn
 N. Henkel

CITY OF GREENSBORO
 TRANSFER STATION

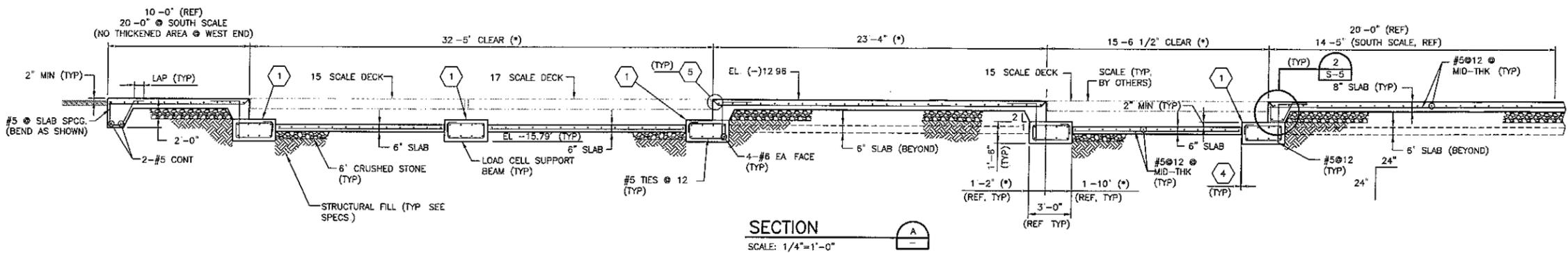
Scalehouse
 Exterior Elevations

Date SEPTEMBER 2004	Project No. 06770-2707-018	Drawing No. A-31	Issue A
Scale 1/4"=1'-0"	File Name A031.DWG		

C:\WIN. 3770001.018\06770110.018\S003.DWG, Layout1, 9/16/2004 3:23:15 PM, ghuneycu



TRUCK LOAD-OUT FOUNDATION/SLAB PLAN
SCALE: 3/16"=1'-0"



SECTION A-A
SCALE: 1/4"=1'-0"

- KEY NOTES:**
- 1 TOP OF CONCRETE @ SCALE FOUNDATION ELEVATION = (-)14.29' LEVEL
 - 2 1-8" SQUARE CONCRETE COLUMN SEE SECTIONS
 - 3 TOP OF CONCRETE FOUNDATION ELEVATION = (-)10.99' + LEVEL
 - 4 CONTINUOUS 1/2" PREFORMED EXPANSION JOINT MATERIAL WITH SEALANT SEE SECTIONS
 - 5 GALVANIZED L3x3x3/8 x 10-1' LONG WITH GALVANIZED 3/8" x 0'-5" LONG HEADED STUDS @ 18" O C (MAXIMUM)
 - 6 GALVANIZED L3x3x3/8 WITH 3/4" GALVANIZED EPOXY ANCHORS 24" O C (MAXIMUM)
 - 7 FIXED CHECKER PLATE TYP. AT COLUMNS
 - 8 CONSTRUCT TRENCH DRAIN AND DROP INLET BOX MONOLITHICALLY. SEE CIVIL DRAWINGS FOR DROP INLET BOX DETAILS.
 - 9 TOP TRENCH CONCRETE FILL ELEV (-)14.79
 - 10 TOP TRENCH CONCRETE FILL ELEV (-)15.29
 - 11 CONCRETE FACADE STRUCTURE SHALL BE 12'x12" COLUMNS AND BEAMS WITH #5 EACH CORNER AND #3 TIES/STIRRUPS @ 12" O C MAKE ALL INTERSECTIONS CONTINUOUS.

- GENERAL NOTES:**
- 1 ELEVATIONS ARE REFERENCED AS (-) FROM UPPER LEVEL FINISH FLOOR LOW POINT ELEVATION SEE SHEET S-1
 - 2 SEE SHEET S-5 FOR FOOTING TYPE DETAILS
 - 3 PLACE CONCRETE ON GRADE AFTER TIPPING FLOOR CONCRETE IS CURED.
 - 4 ALL FOOTING FOUNDATIONS, AND PIERS HAVE BEEN DESIGNED BASED ON ASSUMED LOADINGS AND REACTIONS. MEMBER SIZES AND GEOMETRY MAY VARY DEPENDING ON THE BUILDING BEING SUPPLIED. DO NOT CONSTRUCT THESE MEMBERS UNTIL ENGINEER HAS VERIFIED DESIGN WITH APPROVED SHOP DRAWINGS AS METAL BUILDING BEING SUPPLIED

Rev. No.	Description	Date	Drawn	Checked	Design	Proj. Mgr.
A	ISSUED FOR NCDENR SOLID WASTE PERMIT	9/15/04	MH	HMA	HMA	

HDR
HDR Engineering Inc

Suite 1400
128 S. Tryon Street
Charlotte, NC 28202-5009

FOR LENGTH OR OTHER DIMENSIONS, SEE THE ARCH. SCALE ATTACHED.

Project Manager	S. Jantzen
Designed	S. Jantzen
Checked	H. Antshel, PE
Drawn	M. Henkel

**CITY OF GREENSBORO
TRANSFER STATION**

**Transfer Station
Truck Load-Out/Scale
Foundation/Slab Plan**

Date	SEPTEMBER 2004	Project No.	06770-2707-018	Drawing No.	S-3	Issue	A
Scale	3/16"=1'-0"	File Name	S003.DWG				

EROSION CONTROL APPROVAL

North Carolina
Department of Environment and Natural

Michael F. Easley, Governor
William G. Ross, Secretary

James D. Simons, P.G., P.E., Director
And State Geologist



WINSTON-SALEM REGIONAL OFFICE
DIVISION OF LAND RESOURCES
LAND QUALITY SECTION

June 14, 2004

LETTER OF APPROVAL WITH MODIFICATIONS

City of Greensboro
Attention: Mr. Jeryl Covington, P.E.
401 Patton Avenue
Greensboro, NC 27406

Dear Mr Covington:

This office has reviewed the subject erosion and sedimentation control plan and hereby issues this letter of approval with modifications. A list of the modifications is attached. This plan approval shall expire three (3) years following the date of approval, if no land-disturbing activity has been undertaken, as is required by Title 15A NCAC 4B .0029. Should the plan not perform adequately, a revised plan will be required (G.S. 113A-54.1 (b)).

Please be advised that Title 15 NCAC 4B.0018 (a) requires that a copy of the approved erosion control plan be on file at the job site. Also, you should consider this letter to give the notice required by GS 113A-61.1 (a) of our right of periodic inspection to insure compliance with the approved plan.

North Carolinas Sedimentation Pollution Control Program is performance-oriented, requiring protection of existing natural resources and adjoining properties. If, following the commencement of this project, it is determined that the erosion and sedimentation control plan is inadequate to meet the requirements of the Sedimentation and Pollution Control Act of 1973 (North Carolina General Statute 113A-51 through 66), this office may require revisions to the plan and implementation of the revisions to insure compliance with the Act

Acceptance and approval of this plan is conditioned upon your compliance with Federal and State water quality laws, regulations, and rules. In addition, local city or county ordinances or rules may also apply to this land-disturbing activity. This approval does not supersede any other permit or approval.

585 Waughtown Street, Winston-Salem, North Carolina 27107-2241

Phone: 336-771-4600 \ FAX: 336-771-4631 \ Internet: www.enr.state.nc.us/ENR/

AN EQUAL OPPORTUNITY \ AFFIRMATIVE ACTION EMPLOYER - 50% RECYCLED / 10% POST CONSUMER PAPER

LETTER OF APPROVAL WITH MODIFICATIONS – COG – MSW Transfer Station

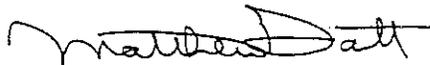
June 14, 2004

Page 2

Please note that this approval is based in part on the accuracy of the information provided in the Financial Responsibility Form, which you have provided. You are requested to file an amended form if there is any change in the information included on the form. In addition, it would be helpful if you notify this office of the proposed starting date for this project. Please notify us if you plan to have a preconstruction conference, and we will plan to attend.

Your cooperation is appreciated, and we look forward to working with you on this project.

Sincerely,



Matthew E. Gantt, P E
Regional Engineer

MEG/lr

F Certificate of Approval With Modifications
NPDES

cc: HDR Engineering, Inc
WSRO File

June 14, 2004

Page 3

PROJECT NAME:	COG – MSW Transfer Station
COUNTY:	Guilford
RIVER BASIN:	Cape Fear
WATER CLASSIFICATION:	Other
FACILITY NUMBER:	Guilf 2004-023
SUBMITTED BY:	HDR Engineering, Inc
RECEIVED BY L.Q.S.:	June 11, 2004

REVISED SUBMITTAL (X)

MODIFICATIONS

This plan is approved with the following modifications:

1. The “Permanent Wet Pond” must be installed and functioning before areas above the pond are cleared.
2. Silt fence must be installed around the top of the headwall on the west side of the site as fill is placed around the headwall

(REVISED)

CERTIFICATE OF PLAN APPROVAL



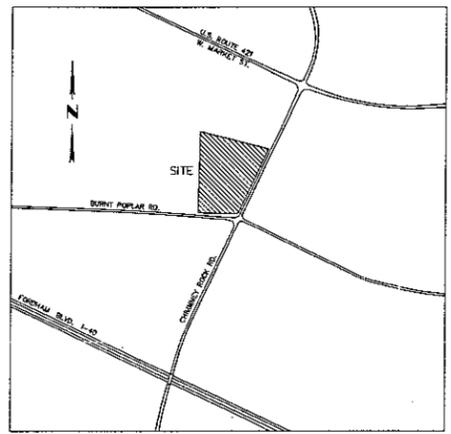
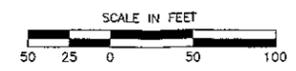
The posting of this certificate certifies that an erosion and sedimentation control plan has been approved for this project by the North Carolina Department of Environment and Natural Resources in accordance with North Carolina General Statute 113A - 57 (4) and 113A - 54 (d) (4) and North Carolina Administrative Code, Title 15A, Chapter 4B.0107 (c). This certificate must be posted at the primary entrance of the job site before construction begins and until establishment of permanent groundcover as required by North Carolina Administrative Code, Title 15A, Chapter 4B.0127 (b).

COG - MSW TRANSFER STATION | Guilford Co.
Project Name and Location GUILF-2004-023

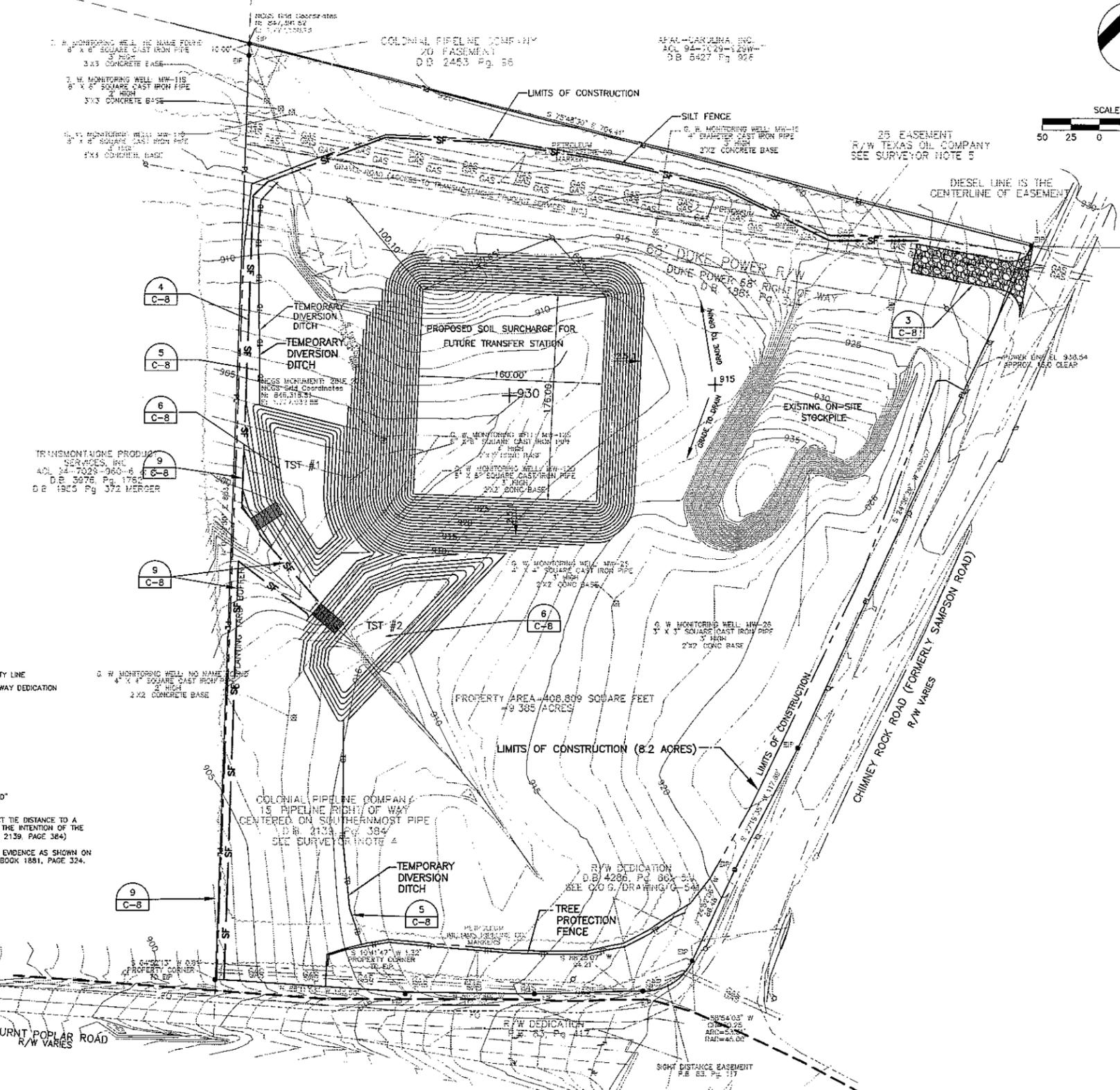
6/14/04
Date of Plan Approval



[Signature]
Regional Engineer



LOCATION MAP (NOT TO SCALE)



SURVEYOR LEGEND

○	EXISTING IRON PIPE (EIP)	— PL —	PROPERTY LINE
●	NEW IRON PIPE (NIP)	— U —	UNSURVEYED PROPERTY LINE
+	CALCULATED POINT	— PL —	PLAT LINE/RIGHT OF WAY DEDICATION
⊕	NGS MONUMENT	— G —	GAS LINE
⊗	GROUND WATER MONITORING WELL	— P —	POWER LINE
⊙	POWER POLE	— E —	EDGE OF PAVEMENT
		— CR —	GRAVEL ROAD
		— 910 —	CONTOUR LINE
		— TL —	TREE LINE

- SURVEYOR NOTES:**
- ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES UNLESS NOTED "GRID"
 - COMBINED GRID FACTOR: 0.9999749
 - ALL AREAS DETERMINED BY COORDINATE COMPUTATION.
 - WRITTEN DESCRIPTION OF THE EASEMENTS APPEAR TO HAVE AN INCORRECT TIE DISTANCE TO A PROPERTY CORNER. THE EASEMENT, AS SHOWN ON THIS MAP REFLECTS THE INTENTION OF THE DEED AS DEPICTED ON THE MAP RECORDED WITH THE DEED (DEED BOOK 2139, PAGE 364). THE EASEMENT IS CENTERED ON THE SOUTHERNMOST PIPE.
 - 25' TEXAS OIL COMPANY EASEMENT IS SHOWN BASED ON THE INTENT OF EVIDENCE AS SHOWN ON PROPERTY MAPS RECORDED IN DEED BOOK 1521, PAGE 391, AND DEED BOOK 1881, PAGE 324. EASEMENT IS CENTERED ON PIPELINE LABELED "DIESEL".

- GENERAL NOTES**
- BOUNDARY AND TOPOGRAPHIC INFORMATION WAS TAKEN FROM A SURVEY BY DAVID BOUTWELL DATED 6/16/03
 - THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND APPROVALS PRIOR TO COMMENCING WORK REFER TO TECHNICAL SPECIFICATIONS.
 - THESE DRAWINGS ACCOMPANY TECHNICAL SPECIFICATIONS ANY CONFLICTS BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER (HDR ENGINEERING INC OF THE CAROLINAS).
 - THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO COMMENCING WORK. CONDITIONS AT THE SITE MAY VARY FROM THOSE SHOWN, AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INCORPORATE THE ACTUAL EXISTING CONDITIONS IN THE EXECUTION OF THE WORK.
 - ELEVATIONS REFER TO USGS DATUM. HORIZONTAL CONTROL BASED UPON NORTH CAROLINA STATE PLANE COORDINATE SYSTEM.
 - THE CONTRACTOR IS RESPONSIBLE FOR DEWATERING (IF REQUIRED) ALL EXCAVATION, FILL AREAS, ETC. TO WORK IN DRY CONDITIONS. REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 - ATTENTION IS DIRECTED TO THE FACT THAT THE WORK WILL BE PERFORMED NEAR SEVERAL PETROLEUM PIPELINES AND OTHER UTILITIES.
 - THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SITE SAFETY ASSOCIATED WITH THE WORK UNDER THIS CONTRACT AND FOR COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL HEALTH AND SAFETY LAWS, CODES, REGULATIONS AND ORDINANCES INCLUDING BUT NOT LIMITED TO THOSE MANDATED BY OSHA.
 - ACCESS TO THE SITE IS FROM CHIMNEY ROCK ROAD.
 - GROUNDWATER MONITORING WELLS IN AREAS OF PROPOSED CONSTRUCTION ARE ANTICIPATED TO BE ABANDONED BY THE OWNER PRIOR TO CONSTRUCTION. THE OWNER WILL REINSTALL THEM AFTER CONSTRUCTION IS COMPLETE.
 - THE CITY OF GREENSBORO WILL NOTIFY / REMOVE / RELOCATE THE NGS MONUMENT AS REQUIRED PRIOR TO CONSTRUCTION.

C:\GIS\HW\DWG_P\08770001\08770001.dwg 1/10/04 10:10:01 AM

D	90% REVIEW	2/20/04			
C	REVISED 60% REVIEW	1/23/04			
B	60% REVIEW	11/24/03			
A	30% REVIEW	9/12/03			
Issue No.	Description	Date	Drawn	Chkd.	Resp. Engr.

HDR
HDR Engineering Inc

Suite 1400
128 S. Tryon Street
Charlotte, NC 28202-5009

WE SEARCH FOR OPPORTUNITIES
DRIVING IDEAS ONE STEP
AWAY FROM REALITY.

Project Manager	J. C. READLING, P.E.
Designed	P. A. WESTMORELAND
Checked	E. A. WRIGHT, P.E.
Drawn	

**CITY OF GREENSBORO
TRANSFER STATION**

Soil Stockpile Plan

Date	JANUARY 2004	Project No.	6770-2707-018	Drawing No.	C-1a	Issue	A1
Scale	SCALE: 1" = 50'	File Name	C-1a.DWG				

ENGINEER'S CERTIFICATION OF STORMWATER QUALITY CONTROL
 I certify that, pursuant to generally accepted engineering standards in the community, it is my professional opinion that runoff from the first inch of rainfall from areas that are required to be controlled per Section 30-7-1.12 of the Greensboro Development Ordinance is controlled by a permanent engineered stormwater quality control that has been designed to meet or exceed the requirements in the Greensboro Stormwater Management Manual.

P.E. SEAL
 SIGNATURE
 DATE

ENGINEER'S CERTIFICATION OF STORMWATER CONTROL COMPLETION
 I certify that, pursuant to generally accepted engineering standards in the community, it is my professional opinion that the permanent stormwater control(s) labeled as Permanent Pond (or an (name of plot) as recorded in PB _____, PG _____, in the Office of the Guilford County Register of Deeds) has been completed in conformance with the plans and specifications approved on (approval date) has its full design volume available and is functioning as designed.

P.E. SEAL
 SIGNATURE
 DATE

ENGINEER'S STATEMENT OF POND AND DAM SAFETY
 The stormwater pond and dam shown on this plan satisfies requirements of the North Carolina State Dam Safety Law of 1957 (As Amended Through 1995) and the Rules and Regulations as presented in the North Carolina Administrative Code Title 15A Subchapter 2X Dam Safety. Even in the case where the dam shown on this plan is determined by the State to be exempt from the above noted Dam Safety requirements, I, as the qualified design engineer, state that the pond and dam are designed to be safe and adequate for the protection of public health, safety, welfare, and downstream property. I understand that this statement as the design engineer shall not relieve the owner or operator of the pond and dam from the legal duties, obligations, and liabilities arising from such ownership or operation.

P.E. SEAL
 SIGNATURE
 DATE

SURVEYOR LEGEND

○ EASTING MARK (F.T. 1/4)	— PROPERTY LINE
⊕ NEW BORN LINE (B.M.)	— ADJUSTED PROPERTY LINE
⊙ CALCULATED POINT	— PLAT LINE (RIGHT OF WAY DESIGN)
⊕ MONUMENT	— SAJ LINE
⊕ GROUND WATER MONITORING WELL	— POWER LINE
⊕ POWER POLE	— EDGE OF PAVEMENT
	— GRAVEL FLAG
	— 910 CONTOUR LINE
	— TREE LINE

SURVEYOR NOTES:

- ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES UNLESS NOTED "GRD"
- ADJUSTED GRID FACTOR: 0.9999749
- ALL AREAS DETERMINED BY COORDINATE COMPUTATION
- BESTER DESCRIPTION OF THE EASEMENT'S BOUNDARY TO HAVE AN INCORRECT THE DISTANCE TO A PROPERTY CORNER. THE EASEMENT, AS SHOWN ON THIS MAP REFLECTS THE INTENTIONS OF THE DEED AS DEPICTED ON THE MAP RECORDED WITH THE DEED (DEED BOOK 2119 PAGE 184). THE EASEMENT IS CENTERED ON THE SOUTHWEST CORNER.
- 20' TIE-INS TO ADJACENT EASEMENT IS SHOWN BASED ON THE INTENT OF EVIDENCE AS SHOWN ON (HISTORIC) MAPS RECORDED IN DEED BOOK 1571, PAGE 371; AND DEED BOOK 281, PAGE 324. EASEMENT IS CENTERED ON PIPELINE LABELED "DIESEL"

TRANSMONTAIGNE PRODUCT SERVICES, INC.
 P.O. BOX 94-7029-950-5 & 8
 D.D. 3076 Pg. 1/82
 C.B. 4035 Pg. 372 MEMBER
 N.C. REG. ETO 00810
 L' ENDWALL 935-03 REV. B

RIP RAF 15 x 25 x 1 5

PERMANENT POND OUTFALL AND CONTROL STRUCTURE (SEE SHEET C-07)

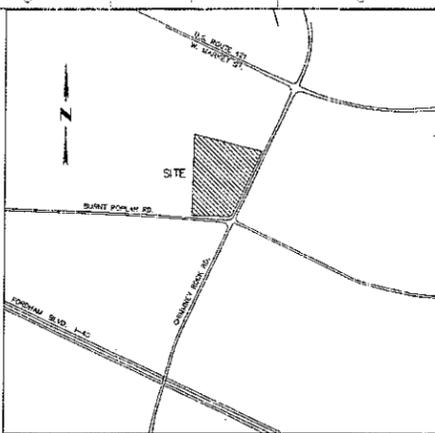
PERMANENT DRIVE OVER AND 15' AROUND NET DETENTION POND TO DEPLATTED AFTER CONSTRUCTION

NOTE:
 OWNER SHALL PROVIDE PUMP TO DRAIN POND TO PERFORM MAINTENANCE OPERATIONS WHEN NECESSARY

1140-1481, 14, INC.
 A.S. 94-7029-0294-7
 C.E. 5427 P. 516

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- LIMITS OF CONSTRUCTION
- SILT FENCE
- SECURITY FENCE
- STORM DRAINAGE CULVERT
- DROP INLET



LOCATION MAP (NOT TO SCALE)

GENERAL CONSTRUCTION SEQUENCE

WORK IN THIS SEQUENCE IS NOT REQUIRED TO BE COMPLETED BEFORE GOING TO THE NEXT ITEM. HOWEVER, THE WORK OUTLINED HERE CAN NOT BEGIN EARLIER IN THE SEQUENCE. ANY VARIATION OF THIS SEQUENCE MUST BE APPROVED BY THE ENGINEER. IT IS THE INTENT TO UTILIZE THE EXISTING TEMPORARY SEDIMENT TRAP (TST) #1 AND TST #2 UNTIL THE PERMANENT POND IS INSTALLED AND OPERATIONAL.

- ESTABLISH LIMITS OF CONSTRUCTION
- REHABILITATE THE TEMPORARY CONSTRUCTION ENTRANCE FROM CHIMNEY ROCK ROAD AS NEEDED.
- INSTALL AND/OR REPLACE SILT FENCE AND TREE PROTECTION FENCE AS NEEDED
- REMOVE SEDIMENT FROM THE EXISTING TST #1 OR TST #2
- INSTALL DIVERSION CHANNELS TO DIRECT FLOW TO EITHER TST #1 OR TST #2. INSTALL ADDITIONAL DIVERSION CHANNELS AS NEEDED
- PERFORM CLEARING AND GRUBBING
- BEGIN SITE GRADING
- INSTALL ALL UNDERGROUND UTILITIES (STORM WATER PIPING, SEWER LINE PIPING, WATERLINE PIPING, ELECTRICAL, ETC.) PIPING FOR DI #9, #10, AND #11 CAN BE INSTALLED AFTER GRADING FOR THE BUILDING DUE TO THE SOIL STOCKPILE.
- INSTALL THE OUTLET STRUCTURE FOR THE PERMANENT POND.
- BEGIN CONSTRUCTION FOR THE BURNT POPLAR ROAD ENTRANCE AND TURN LANE
- ESTABLISH LIMITS OF CONSTRUCTION
- INSTALL AND/OR REPLACE SILT FENCE AND TREE PROTECTION FENCE
- BEGIN GRADING
- INSTALL CULVERT WITH INLET AND OUTLET PROTECTION
- FINE GRADE
- INSTALL ROAD BASE AND STABILIZE
- INSTALL THE PERMANENT POND. NEITHER TST #1 NOR TST #2 SHOULD BE COMPLETELY REMOVED DURING INSTALLATION OF THE PERMANENT POND. INSTALLATION OF THE PERMANENT POND SHOULD BE PHASED STARTING WITH THE SMALLER BAY. TEMPORARY DIVERSION CHANNELS SHOULD BE USED TO TEMPORARILY DIVERT RUNOFF TO THE SMALLER BAY DURING CONSTRUCTION OF THE LARGER BAY.
- TST #2 WILL BE REMOVED AS THE LARGER BAY OF THE POND IS CONSTRUCTED.
- PERFORM GRADING FOR THE BUILDING
- TST #1 SHOULD BE REMOVED AS GRADING ON THE WEST SIDE OF THE BUILDING PROGRESSES AND FLOW IS DIRECTED TO THE PERMANENT POND. BEGIN BUILDING INSTALLATION
- INSTALL DROP INLETS
- INSTALL BASE FOR ALL PAVED AREAS AND CURBING
- INSTALL SCALES AND SCALE HOUSE
- INSTALL FUEL ISLAND
- INSTALL SITE FENCING AND GATES
- COMPLETE FINE GRADING
- FAVE SITE ACCESS ROADS
- INSTALL LANDSCAPING AND PERFORM PERMANENT SEEDING
- EROSION AND SEDIMENT CONTROL NOTES

GENERAL NOTES

- REFER TO DRAWING NO. C-04, SITE UTILITIES PLAN FOR LOCATION OF PROPOSED UNDERGROUND SEWER, WATER, AND STORM DRAIN.
- RELOCATION OF OVERHEAD UTILITIES TO BE COORDINATED BY THE OWNER AND ENGINEER.
- THERE IS NO FLOODPLAIN OR FLOOD WAY ON THE PROPERTY PER FEMA COMMUNITY PANEL NUMBER 375351 0011 C, MAP REVISED SEPTEMBER 30 1988.
- THE CITY OF GREENSBORO HAS OBTAINED APPROVAL TO PLACE FILL OVER THE GAS LINE RIGHT OF WAY ON THE NORTH SIDE OF THE PROPERTY
- GROUND WATER MONITORING WELL IN AREAS OF PROPOSED CONSTRUCTION ARE ANTICIPATED TO BE ABANDONED BY THE OWNER PRIOR TO CONSTRUCTION. THE OWNER WILL REINSTALL THEM AFTER CONSTRUCTION IS COMPLETE.
- THE CITY OF GREENSBORO WILL NOTIFY/REMOVE/RELOCATE THE NCCS MONUMENT AS REQUIRED PRIOR TO CONSTRUCTION.
- EXISTING POWER POLES NEAR CITIZEN'S DROP-OFF AREA TO BE RELOCATED BY OWNER.
- ALL TREE PROTECTION DEVICES MUST BE INSTALLED PRIOR TO LAND DISTURBANCE, INCLUDING THE CUTTING OF ANY TREES. A PENALTY OF \$500 PER DAY FOR FAILURE TO INSTALL APPROVED TREE PROTECTION MEASURES MAY APPLY.
- CONTRACTOR SHALL CONTACT THE URBAN FORESTER AT 373-2150 TO SET UP A "PRECONSTRUCTION MEETING" PRIOR TO LAND DISTURBANCE
- TREE PROTECTION FENCING CAN AND SHOULD BE INSTALLED PRIOR TO THE PRE-CONSTRUCTION MEETING.
- NO GRADING IS TO OCCUR IN THE TREE CONSERVATION AREA OR TREE CRITICAL ROOT ZONES.

BUFFER	
Designation	AVERAGE WIDTH (FT.)
STREET YARD	8
TYPE D YARD	5
PARKING LOT	N/A

Offsite Drainage Area (Ac)	-0-
Offsite Runoff Quantity (cfs)	-0-

NO.	DATE	DESCRIPTION	BY	CHKD.	APP.
B	5/08/04	REVISED FOR SITE PLAN APPROVAL (TRC)			
A	3/12/04	ISSUED FOR SITE PLAN APPROVAL (TRC)			

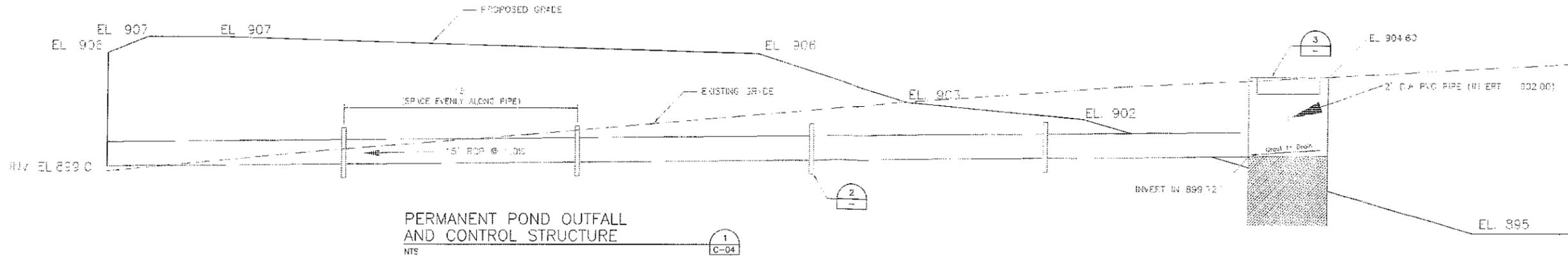
HDR
 HDR Engineering Inc.
 1490
 125 S. TOWN
 GREENSBORO, NC 27402-2604
 336-333-1100
 FAX 336-333-1101
 WWW.HDR.COM

Project Manager:
 J. C. Radcliff, P.E.
 Designer:
 G. Hyatt, P.E.
 Checker:
 P. Y. ...
 Date:
 5/8/04

**CITY OF GREENSBORO
 TRANSFER STATION**

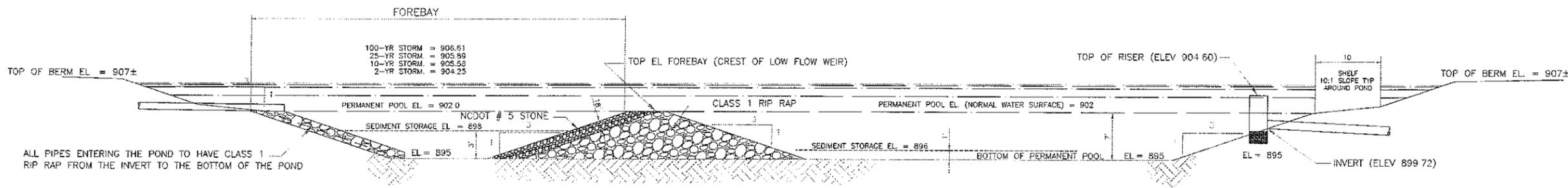
Site Grading Plan

DATE: June 2004
 SCALE: 1" = 30'
 SHEET NO.: C-03
 OF: B



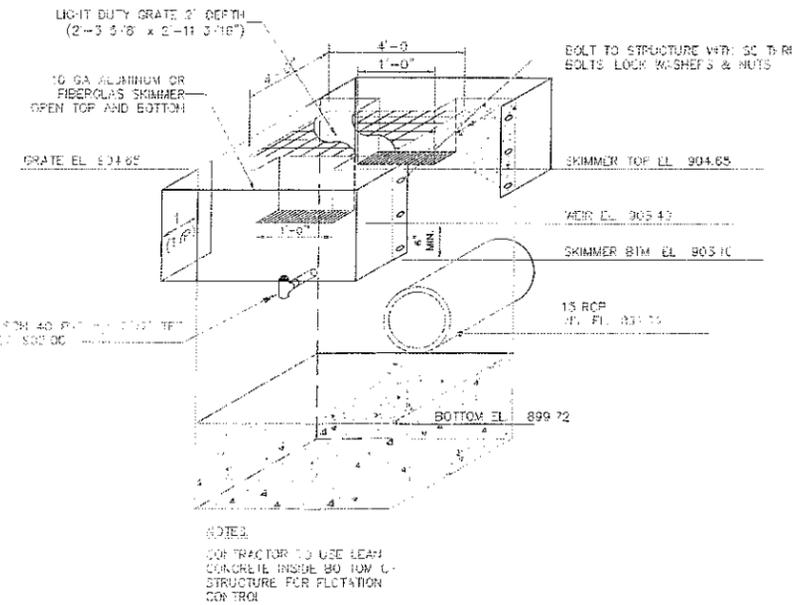
PERMANENT POND OUTFALL AND CONTROL STRUCTURE
NTS

1
C-04



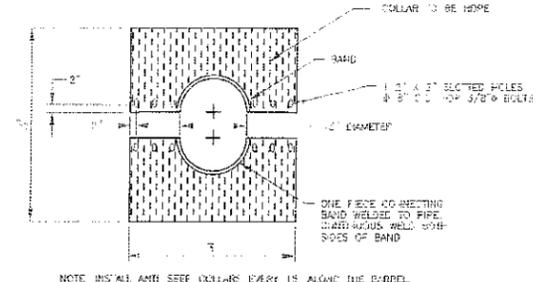
FOREBAY AND STORAGE POND
NTS

4
C-03



OUTFALL CONTROL STRUCTURE
NTS

3
-



ANTI-SEEP COLLAR
NTS

2
-

Issue No.	Description	Date	By	Check	Rev.	Appr.
B	REVISED FOR SITE PLAN APPROVAL (TRC)	6/28/04				
A	ISSUED FOR SITE PLAN APPROVAL (TRC)	3/12/04				

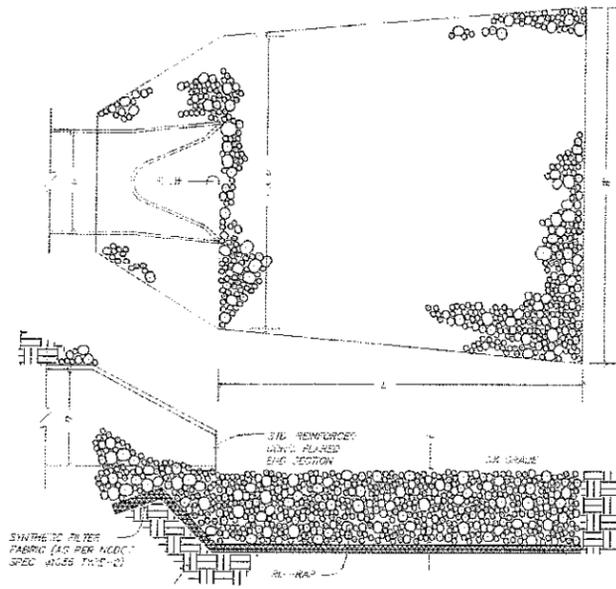


Project Engineer	J. C. ROADLINC, P.E.
Designer	G. Metzler, PE
Checker	P. W. WILSON
Reviewer	C. Metzler, PE
Author	G. Hunsyelt

**CITY OF GREENSBORO
TRANSFER STATION**

Pond Plan Details and Profile

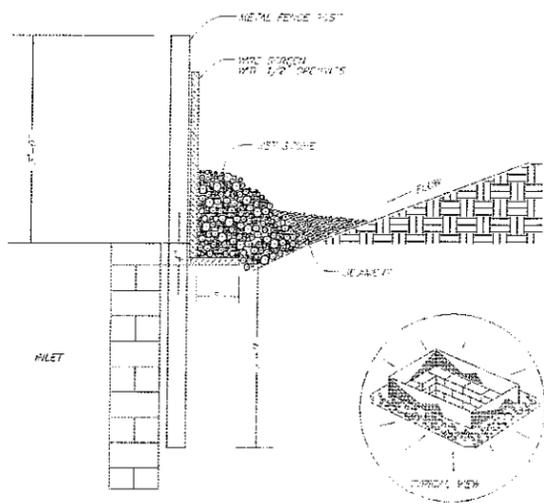
Date	June 2004	Project No.	06-73-2707-018	Sheet No.	C-07
Scale	Not to Scale	Drawn By	C-7.EWG	Checked By	B



OUTLET EROSION CONTROL DEVICE
N.T.S. (City of Greensboro Std. No. 422)

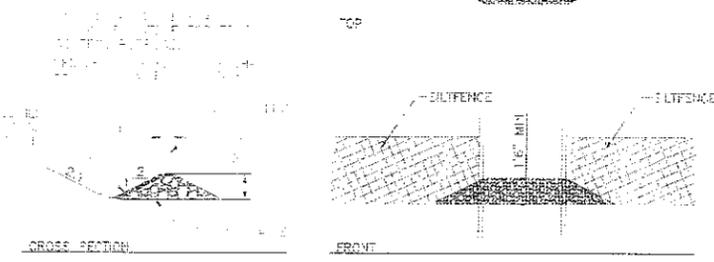
LEGEND:
 D = OUTLET PIPE DIAMETER
 d₅₀ = MEDIAN STONE SIZE IN A WELL SORTED AGRUM
 D_{max} = 1.5 x d₅₀ MAXIMUM STONE DIAMETER
 t = APRON THICKNESS = 1.5 x d_{max}
 L = LENGTH (DETERMINED FROM SECT. 800)
 W = WIDTH @ END OF APRON (DETERMINED BY SECT. 800 DEPENDING ON FILL/PAVING CONDITIONS) WIDTH @ OUTLET = 30

NOTES:
 1. RPA-SP PIPE SHALL PROTECT ON ALL SIDES TO BE DESIGNED ACCORDING TO THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL SECTION 8.001 - 8.004.
 2. PLACE FABRIC AROUND THE PIPE AND TIE TO THE FIELD ENGINEER.

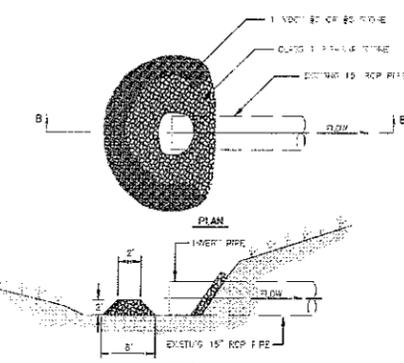


STONE WIRE INLET PROTECTION
N.T.S.

NOTES:
 1. POST TO BE SET AT EACH CORNER OF INLET. IN ANY CASE THERE IS TO BE NO MORE THAN 6'-0" BETWEEN POSTS.
 2. WIRE SCREEN SHALL BE 1'-0" HIGH WITH 1/2" x 1/2" MESH.
 3. STONE SHALL BE PLACED 1'-0" DEEP AT WIRE SCREEN.



STONE OUTLET DETAIL
NOT TO SCALE



CULVERT INLET PROTECTION
NOT TO SCALE

- SEEDING SPECIFICATIONS:**
- TEST SOIL TO DETERMINE NUTRIENT CONTENT.
 - LOOSEN SURFACE TO MINIMUM DEPTH OF FOUR (4) INCHES.
 - INCORPORATE NEEDED NUTRIENTS AS DETERMINED FROM SOIL TEST INTO SOIL.
 - SEEDING REGIME:
 - PERMANENT SEEDING:
 - SPRING (MARCH 1 - APRIL 30) AND FALL (SEPTEMBER 1 - NOVEMBER 15)
 - KENTUCKY-31: 100 LBS/AC
 - Unhulled serco lespedeza: 50 lbs/AC
 - RYE GRASS: 1 BUSHEL/AC
 - WINTER (NOVEMBER 16 - FEBRUARY 28)
 - KENTUCKY-31: 200 LBS/AC
 - Unhulled serco lespedeza: 50 lbs/AC
 - RYE GRASS: 3 BUSHELS/AC
 - SUMMER (MAY 1 - AUGUST 31)
 - KENTUCKY-31: 50 LBS/AC
 - Unhulled serco lespedeza: 50 LBS/AC
 - KORPAN OR KORP (SPERFETA): 50 LBS/AC
 - WOOLING LOVE GRASS: 5 LBS/AC
 - BERMUDA GRASS: 10 LBS/AC
 - MILLET: 1 BUSHEL/AC
 - TEMPORARY SEEDING:
 - SPRING (MARCH 1 - APRIL 30) AND WINTER (NOVEMBER 15 - FEBRUARY 28)
 - RYE: 120 LBS/AC
 - SERCOIA LESPEDEZA: 50 LBS/AC
 - SUMMER (MAY 1 - AUGUST 31)
 - GERMAN MILLET: 40
 - FALL (SEPTEMBER 1 - NOVEMBER 15)
 - RYE: 120 LBS/AC
 - CULTIPACK SEEDED AREAS
 - GRADE SEEDED AREAS TO SMOOTH STEEP SURFACE WITH LOOSE UNIFORM PINE TEXTURE
 - MULCH WITH WHEAT STRAW @ 3000 LBS/ACRE
 - ANCHOR MULCH WITH EMULSION OR APPROVED EQUAL ANCHORING METHOD

DEFINITION: GRAVELED AREA TO BE LOCATED AT POINTS WHERE VEHICLES ENTER AND LEAVE A CONSTRUCTION SITE.

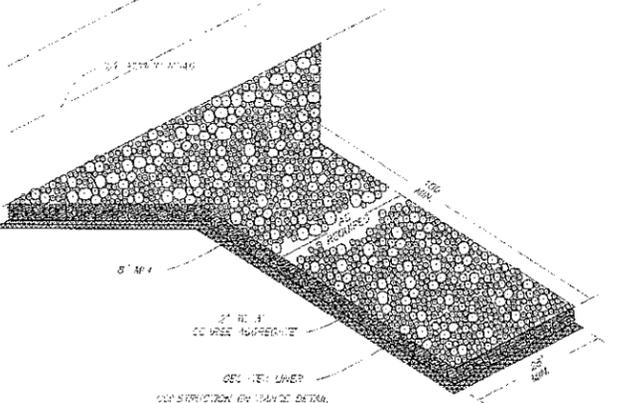
PURPOSE: TO PROVIDE A BUFFER AREA WHERE VEHICLES CAN DROP THEIR MUD AND SEDIMENT TO AVOID TRANSPORTING IT TO THE PUBLIC ROW. TO CONTROL EROSION FROM SURFACE RUNOFF AND TO HELP CONTROL DUST.

CONDITIONS: TO BE USED A GRAVELED TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE AND MOVING DIRECTLY ONTO A PUBLIC ROAD OR OTHER PAVED OFF-SITE AREA. CONSTRUCTION PLANS SHOULD SHOW TRAFFIC TO PROPERLY CONTROLLED ENTRANCES.

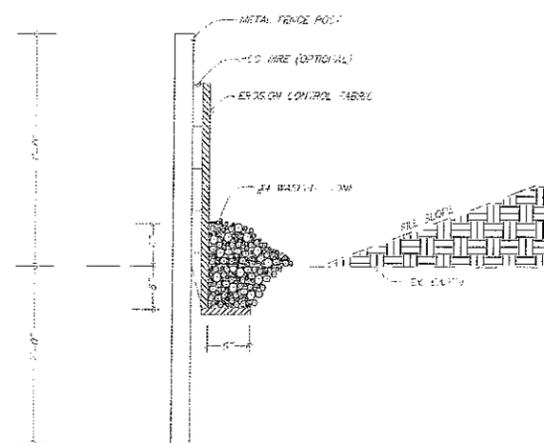
DESIGN CRITERIA: AGGREGATE SIZE - USE 1" TO 1 1/2" WASHED STONE WITH GEO-TEXT LAYER.

DIMENSIONS OF GRAVEL PAD: THICKNESS = 8" MINIMUM
 WIDTH = 20' MINIMUM OF FULL WIDTH AT ALL CORNERS OF THE VERTICAL ENTRANCE AND EXIT AREA, WHICHEVER IS GREATER.
 LENGTH = 100' MINIMUM WITH GEO-TEXT LAYER.
 LOCATION = LOCATE CONSTRUCTION ENTRANCES AND EXITS TO LIMIT SEDIMENT FROM LEAVING THE SITE AND TO PROVIDE FOR MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES. AVOID STEEP GRADES AND ENTRANCES AT CURVES IN PUBLIC ROADS.

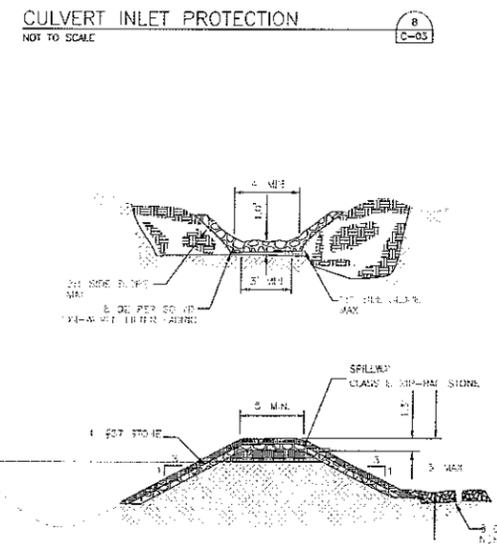
NOTE: SITE CONDITIONS MAY REQUIRE VARIATIONS FROM THESE DESIGN CRITERIA. VARIATIONS WILL BE DETERMINED OR APPROVED BY THE APPROPRIATE CITY EROSION CONTROL AGENCY.



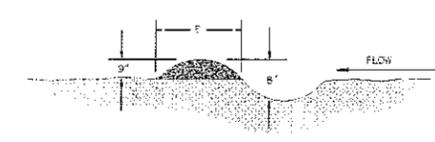
GRAVEL CONSTRUCTION ENTRANCE
N.T.S. (City of Greensboro Std. No. 436)



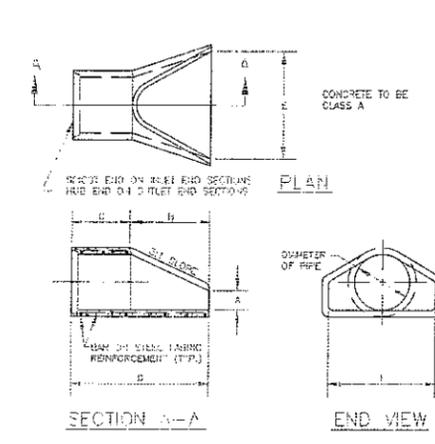
NOTES:
 1. MAXIMUM PLACEMENT OF POST AND OUT WIRE SHALL BE 6'-0" TO 8'-0" APART.
 2. MAXIMUM PLACEMENT OF POST AND OUT WIRE SHALL BE 6'-0" TO 8'-0" APART.
 3. POST: METAL T-POST 5'-0" OR 6'-0" IN HEIGHT DEPENDING ON SLOPE.
 4. FABRIC: 3'-0" WIDE WITH WIRE AS PER ENGINEER'S SPECIFICATIONS FOR EROSION CONTROL.
 5. STONE: 1/4" WASHED STONE TO BE PLACED 1'-0" DEEP AT SILT FENCE.



TEMPORARY DIVERSION CHANNEL
N.T.S.



FLARED END SECTION DETAIL
N.T.S.



ONLY SECTION DIMENSIONS

CHARACTER	A	B	C	D	E
12"	4"	2'-0"	2'-0"	4'-0"	6'-0"
18"	6"	2'-3"	2'-0"	4'-0"	7'-6"
24"	9"	2'-6"	2'-0"	4'-0"	9'-0"
30"	12"	3'-0"	2'-0"	4'-0"	12'-0"

NO.	DESCRIPTION	DATE	BY	CHECK	REVISION	APP. NO.
B	REVISED FOR SITE PLAN APPROVAL (TRC)	6/28/04				
A	ISSUED FOR SITE PLAN APPROVAL (TRC)	3/12/04				

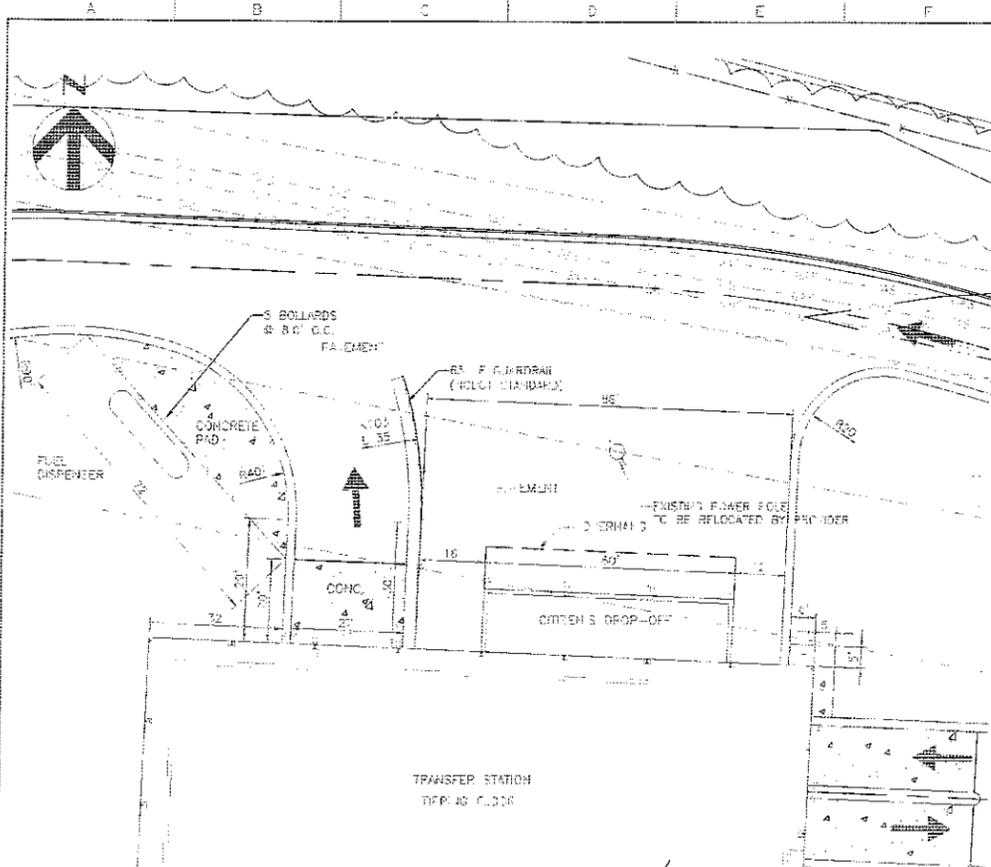


HDR Engineering Inc
 4300
 1100
 2000
 2000

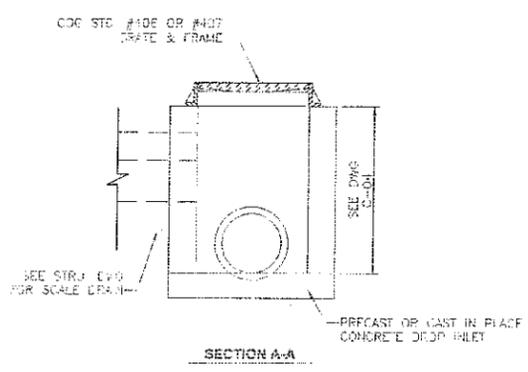
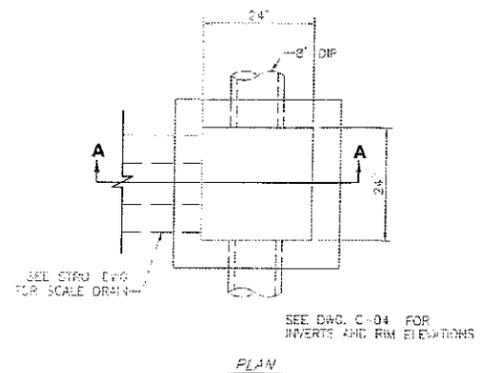
**CITY OF GREENSBORO
TRANSFER STATION**

Erosion and Sedimentation Control Details

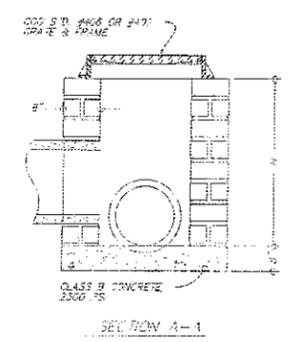
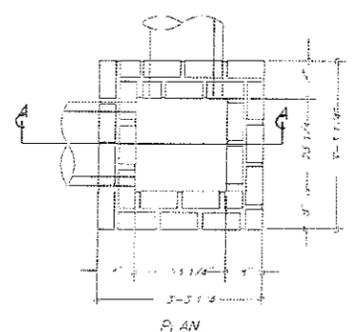
DATE: JUNE 2004
 SHEET NO: 06-70-2707-018
 SCALE: Not to Scale
 DRAWN BY: C-8.LWG
 CHECKED BY: C-8.LWG
 TITLE: C-08
 SHEET: B



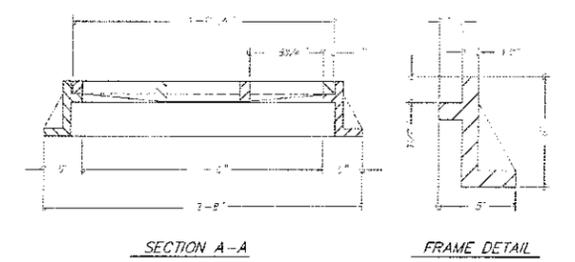
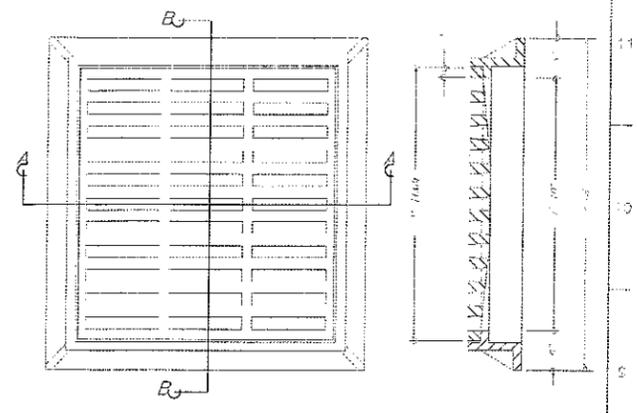
PARTIAL SITE PLAN (CITIZEN'S DROP-OFF)
SCALE 1" = 20'



PRECAST DROP INLET (24"x24" GRATE)
NTS (City of Greensboro Std. No. 410)



DROP INLET FOR 24 X24" GRATE
NTS (City of Greensboro Std. No. 410)



24-34	24" x 24" GRATE	3" x 3" x 1/2"
24-35	24" x 24" GRATE	3" x 3" x 1/2"
24-36	24" x 24" GRATE	3" x 3" x 1/2"
24-37	24" x 24" GRATE	3" x 3" x 1/2"

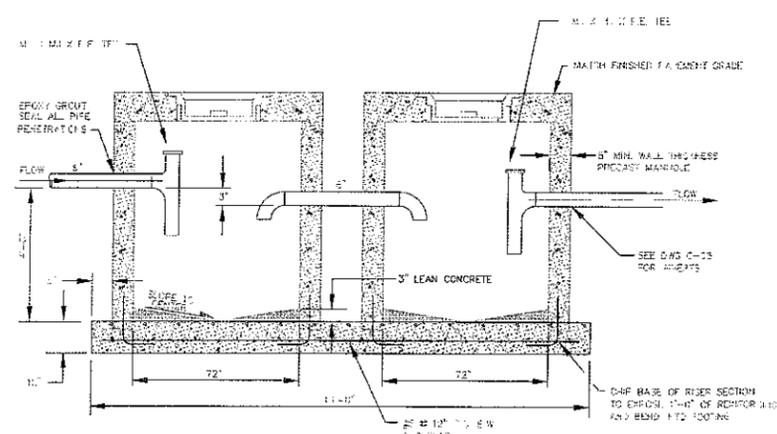
24" x 24" GRATE AND FRAME
NTS (City of Greensboro Std. No. 467)

DESIGN REFERENCE: "A CURRENT ASSESSMENT OF URBAN BEST MANAGEMENT PRACTICES, TECHNIQUES FOR REDUCING NON POINT SOURCE POLLUTION IN THE COASTAL ZONE" BY SCHUELER, KUMBLE AND HERATY, PAGE 87 MARCH 1992.

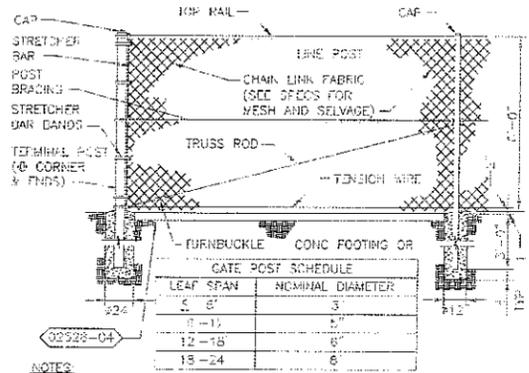
DESIGN CRITERIA:
PERMANENT POOL OF TRAP - 400 CUBIC FEET OF STORAGE PER CONTRIBUTING ACRE

DESIGN OF TRAP:
CONTRIBUTING DRAINAGE AREA - 0.59 ACRES
REQUIRED PERMANENT POOL VOLUME - 208 CUBIC FEET
ASSUME 2 CHAMBERS - 104 CUBIC FEET PER CHAMBER
ASSUME EACH CHAMBER IS 4 FEET DEEP MEASURED FROM THE INLET FLOW LINE TO THE BOTTOM OF THE CHAMBER.
REQUIRED AREA OF EACH CHAMBER - 26 SQUARE FEET
MINIMUM REQUIRED DIAMETER OF EACH CHAMBER - 5.75 FEET

CONCLUSION:
EACH CHAMBER TO BE 6 FEET IN DIAMETER AND 4 FEET DEEP

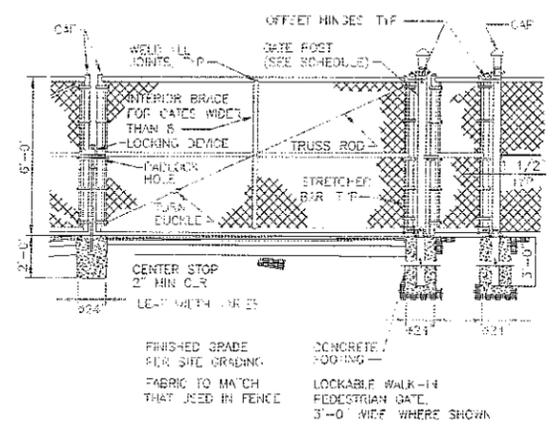


GREASE AND GRIT TRAP
NTS



GATE POST SCHEDULE	
LEAF SPAN	NOMINAL DIAMETER
6-8'	3"
8-11'	4"
12-15'	5"
15-24'	6"

CHAIN LINK FENCE
NTS (City of Greensboro Std. No. 411)



CHAIN LINK FENCE & GATE
NTS (City of Greensboro Std. No. 411)

B	REVISED FOR SITE PLAN APPROVAL (TRC)	5/08/04							
A	ISSUED FOR SITE PLAN APPROVAL (TRC)	3/12/04							



Project Manager
J. C. COLLING P.E.
Designer
C. Helder P.E.
Checker
P. Helder
C. Helder P.E.
C. Helder P.E.

**CITY OF GREENSBORO
TRANSFER STATION**

Miscellaneous Details

Date	June 2004	Sheet No.	06170-2707-010
Scale	Not to Scale	Drawn By	C-12.DWG
			C-12
			B