



Stokes County
Purchasing Department

Memorandum

To: Prospective Bidders

From: Glenda Pruitt, Support Services Supervisor

Date: January 21, 2021

Re: Proposals Landfill Slope Drain Pipe Repair

Stokes County is currently accepting proposals for:

Landfill Slope Drain Pipe Repair
Sizemore Road Closed Landfill
2015 Sizemore Road
Stokes County, North Carolina

Please see the attached scope of work for details of work expected.

Proposals will be accepted until 3:00 pm, Tuesday, February 16, 2021.

P.O. Box 20 Danbury

North Carolina 27106
Email: gpruitt@co.stokes.nc.us

Fax: 336-593-2346



January 20, 2021

Re: Request for Proposal – Landfill Slope Drain Pipe Repair
Sizemore Road Closed Landfill
Stokes County, North Carolina

On behalf of Stokes County Public Works Department, LaBella Associates (LaBella) invites you to respond to this request for proposal to provide the required construction personnel, equipment, and materials for the above-referenced project.

The project includes, but not limited to, trenching and grading, slope drainpipe installation with specified materials, and backfilling, construction of drainage inlet and outlet structures, restoration of the slope to surrounding conditions, revegetation and stabilizing all disturbed areas.

Payment for this work will be made upon successful completion the work.

Your proposal should be prepared using the attached Proposal Form and submitted to:

Glenda Pruitt, Support Services Supervisor
1014 Main Street, Danbury, NC 27016, by FedEx 3:00 p.m. on February 16, 2021.
Submitting your proposal (email) by 3:00 p.m. on February 16, 2021 to Glenda Pruitt at gpruitt@co.stokes.nc.us will be acceptable, but a hard copy is required to be postmarked on February 16, 2021 mailing address PO Box 20 Danbury, NC 27016.

Questions concerning this RFP should be directed to hkemppinen@labellapc.com no later than February 10, 2021 in writing. Clarification or modification of the RFP will be issued in writing as needed. All interested bidders are required to notify hkemppinen@labellapc.com to be able to receive a copy of any addenda.

Each proposed lump sum total price in your proposal shall constitute full compensation for all labor, materials, manufacture, installation, Quality Control, transportation to the site, overhead and profit.

Please prepare your proposal for lump sum price utilizing existing slope drain and providing all new drainpipe.

Existing Drain Option includes installation of the drainpipe, couplings, anchors, inlet and outlet structures in accordance with project details. Existing drain may be reused provided the connections are water-tight bell and spigot construction, and is not damaged beyond reusable condition. The County will make a final decision whether pipe is to be reused on the project. If existing pipe is to be reinstalled, install Marmac™ Poly Seal pipe wrap with mechanical clam coupling around pipe joints.

Slope Drain Repair using existing pipe

Lump Sum Price \$ _____



Alternate - New Drain Pipe Option includes furnishing all labor, equipment and new materials for the permanent HDPE downslope drain including drainpipe, couplings, anchors, inlet and outlet structures in accordance with project details. The drainpipe connections shall be water-tight bell and spigot construction with Marmac™ Poly Seal pipe wrap with mechanical clam coupling around pipe joints.

Slope Drain Repair using new drain pipe Lump Sum Price \$ _____

Stokes County reserves the right to reject any or all proposals and award contract on the basis of factors considered to be in the County's best interest. Failure to prepare your proposal as requested may result in rejection of the bid. Submitting a proposal with conditions, exceptions or exclusions, may result in rejection of the bid. The project will be awarded for the first quarter 2021 construction. The contractor will be required to complete the project in thirty (30 days) following the project award. The contractor will be required to coordinate installation with the County personnel involved with the project.

We appreciate your consideration of this request and look forward to your response. Should you have any questions, please contact me by email at hkempainen@labelapc.com.

Respectfully submitted,
LaBella Associates

hmak
Hannu Kempainen
Sr. Project Consultant

Attachments:

Specification Sections 01050, 01568, 01720, 02200, 02221,
Drawing CP-01
ADS Pipe Coupler, ADS Pipe Installation Guide

C Mark Delehant (w/attachments)

SECTION 01050

FIELD ENGINEERING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. General requirements
- B. Surveys for Measurement and Payment
- C. Submittals

1.2 GENERAL REQUIREMENTS

- A. Provide field engineering services needed to accomplish the Work. Use recognized engineering survey practices.
- B. Employ properly qualified personnel to conduct the Work described. Employ a Land Surveyor registered in North Carolina and acceptable to the Owner.
- C. Refer elevations to site datum and control benchmarks.
- D. Preserve all stakes and marks established by the Owner. If any stakes or marks are disturbed, the cost of replacement will be charged against the CONTRACTOR.
- E. Provide record documents in accordance with Section 01720.

1.3 SURVEYS FOR MEASUREMENT AND PAYMENT

- A. Conduct surveys to determine quantities of unit cost work, including control surveys to establish measurement reference lines.

1.4 SUBMITTALS

- A. Submit name, address and telephone number of Surveyor before starting survey work.
- B. Submit to Owner copies of each survey drawing, signed and sealed by Surveyor, demonstrating that elevations and locations of the Work are in conformance with the Contract Documents.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 01050

SECTION 01568

EROSION AND SEDIMENT CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Compliance with approved Erosion and Sediment Control Plan, regulations, and North Carolina Erosion and Sediment Control Planning and Design Manual.
- B. Personnel, equipment, materials, and supplies to prevent erosion and to control sediment during construction.

1.2 REFERENCES

- A. North Carolina Erosion and Sediment Control Planning and Design Manual, latest edition; North Carolina Department of Environment and Natural Resources.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Materials used shall meet all applicable specifications and be in accordance with North Carolina Erosion and Sediment Control Planning and Design Manual.
- B. Erosion control matting North American Green single net straw blanket BioNet S75BN or equal.
- C. HDPE corrugated Class C slope drain pipe ADS, Hancor or equivalent, with Mar Mac Polyseal Couplers ADS at joints.

PART 3 EXECUTION

3.1 GENERAL

- A. Provide personnel, equipment, materials, and supplies to prevent erosion and to control sediment during construction.
- B. Conduct all construction related activities in accordance with approved erosion and sediment control plans for this site. Comply with all local and State Erosion Control regulations.
- C. Prepare new erosion and sediment control plans for proposed land disturbance activities outside the limits of disturbance of approved erosion and sediment control plans for the site. Submit erosion and sediment control plans prepared by the CONTRACTOR to the regulatory authorities for review, and pay-required fees.

Obtain approval of erosion and sediment control plans from the regulatory authorities prior to conducting land disturbance activities in the affected areas.

- D. Provide measures at all times to control erosion and to minimize siltation of drainage ditches, storm drains, and adjacent waterways.
- E. Limit grading to areas of workable size to limit the duration of exposure of disturbed and unprotected areas. Apply all appropriate conservation practices in sequence with the work.
- F. Protect stockpiled material with mulch, temporary vegetation, or a sediment barrier at its base.
- G. Install all erosion and sediment control practices in accordance with the latest edition of the North Carolina Erosion and Sediment Control Planning and Design Manual.

3.2 TEMPORARY SEDIMENT FENCE (SILT FENCE)

- A. Std. & Spec. 6.62, North Carolina Erosion and Sediment Control Planning and Design Manual.

3.3 OUTLET PROTECTION

- A. Std. & Spec. 6.41, North Carolina Erosion and Sediment Control Planning and Design Manual.

3.5 OTHER APPROVED MEASURES

- A. Provide all other measures required by governing regulations and agencies.

3.6 MANAGEMENT STRATEGIES

- A. Sequence construction so that erosion control operations can begin and end as quickly as possible. Temporary seeding or other stabilization shall follow grading. The CONTRACTOR shall be responsible for the installation and maintenance of all erosion and sediment control practices. All areas disturbed by construction shall be stabilized with permanent seeding immediately following finish grading. Permanently seeded areas shall be protected with straw mulch or other acceptable material approved by the ENGINEER.

3.7 MAINTENANCE

- A. Check all erosion and sediment control measures weekly and after each significant rainfall.

3.8 REMOVAL

- A. Remove all temporary control measures at the completion of the Work and restore site as required. Remove erosion and sediment control devices only after written approval of the Owner.

END OF SECTION 01568

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. The purpose of the record documents is to provide factual information regarding all aspects of the Work, both concealed and visible, to enable future modifications to proceed without lengthy and expensive site investigation.
- B. Throughout progress of Work, maintain an accurate record of all revisions to the Work. Upon completion of Work, transfer the recorded changes to a set of record documents. This includes, but is not limited to, all modifications to piping, utilities, grading, structures, and monitoring devices.
- C. Submit complete sets of record drawings, and one set of AutoCAD compatible files acceptable to the Owner upon completion of the project.

1.2 SUBMITTALS

- A. Record documents shall be submitted to and deemed complete by OWNER, prior to the OWNER'S release of retainage and payment of final pay request.
- B. Accompany submittal with transmittal letter in duplicate, containing:
 - 1. Date;
 - 2. Project title and number;
 - 3. CONTRACTOR'S name and address;
 - 4. Title and number of each Record Document;
 - 5. Signature of CONTRACTOR or his authorized representative.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 SURVEYOR

- A. Employ the services of a surveyor licensed in North Carolina to determine actual locations and elevations of installed items and to prepare the record drawings.

3.2 DOCUMENTS REQUIRED

- A. Maintain at the site for the OWNER one record copy of:

1. Contract Drawings and Specifications;
2. Contract Addenda;
3. Change Orders and other Modifications to the Contract;
4. Approved Shop Drawings, Product Data, and Samples;
5. Field Records;
6. Construction photographs.

3.3 ACCURACY OF RECORDS

- A. Thoroughly coordinate all changes within the record documents, making adequate and proper entries on each page of the Specifications and each sheet of the Drawings and other documents where such entry is required to properly show the change. Record accuracy shall be such that future searches for the constructed features may reasonably rely on information obtained from record documents.

3.4 SUBMITTAL

- A. The approval of the current record documents shall be a prerequisite to the Owner's approval of requests for final payment under the Contract.

3.5 PROTECTION OF DOCUMENTS

- A. Maintain the job set of record documents protected from deterioration, loss, and damage until completion of Work and transfer of recorded data to the final record documents.

3.7 MAKING ENTRIES ON DOCUMENTS

- A. Clearly describe the change by note as required.

3.8 FORMAT OF FINAL RECORD DRAWINGS

- A. Prepare Record Drawings in an AutoCAD Release 2006 or later compatible file or format acceptable to the Owner.
- B. At a minimum, provide a survey showing spot elevations and two-foot contours for the constructed utility structure. The survey points shall include toe and top of slope, and at all breaks in the slope. Spot elevations shall be measured to the nearest 0.01 foot. The required surveys shall be completed and stamped by a registered North Carolina surveyor.
- C. Provide a final topographic survey, with two-foot contours, of all areas disturbed by construction activities. Information shall include vertical and horizontal locations of all improvements, including but not limited to, structural fill, piping inverts, inlet and outlet structures, erosion and sediment control structures, and stormwater channels.

END OF SECTION 01720

SECTION 02200

EARTHWORK

PART 1 -GENERAL

1.1 SCOPE

- A. The Work covered by this specification consists of furnishing all labor, equipment and materials to perform general grading for landfill cover; excavation; and placement and compaction of structural fill, intermediate cover, soil cover layers, embankments and structures, as shown on the Details. For the vegetative support layer component of the cover soils, refer to Section 02480 Revegetation.
- B. All excavation shall be unclassified regardless of material encountered, except for Rock as defined in this specification.
- C. A layer is defined as a compacted stratum composed of several lifts constructed without joints. A lift is defined as a segment of a layer composed of the maximum thickness of soil permitted to be placed / compacted at one time.
- D. All fill materials shall be subject to the approval of the County.
- E. The CONTRACTOR is solely responsible for the placement of all fill material. It is recommended the CONTRACTOR employ his own geotechnical consultant to provide construction assistance and recommendations.

PART 2 - PRODUCTS

2.1 FILL MATERIAL

All fill material used to establish necessary grades shall be free of debris, roots, stumps, brush, vegetation, frozen material, organic matter, rock, or gravel larger than two inches in any dimension, or other harmful matter, unless allowed by the CQA Consultant.

All fill materials shall be subject to the approval of the County. CONTRACTOR shall notify the County 10 working days in advance of intention to begin filling operations. Notification shall include designation of the proposed borrow source and the adequacy of the material to perform its intended use. CONTRACTOR shall not initiate filling activities without the approval of the County to use the intended material for filling activities.

Fill material shall have high cohesion value to be suitable for slope cover construction and approved by the Owner.

The use of any cover soils obtained from sites with active remediation and/or known contamination is prohibited.

2.2 UNSUITABLE MATERIAL

Material such as clay mass, frozen materials, cinders, ashes, refuse, vegetation, organic material and muck shall be construed as unsuitable material for backfill. All unsuitable material under structural fills and berms shall be removed from the area to be filled.

PART 3 - EXECUTION

3.1 GENERAL

- A. Strip topsoil to full depth, and stockpile separate from other excavated materials and pile free of roots, stones, and other undesirable materials. Follow local erosion and sediment control guidelines to prevent erosion. Any depressions caused by removal of stumps of the clearing shall be excavated to firm subgrade.
- B. The CONTRACTOR shall perform excavation described in materials encountered to dimensions shown on the Details.
- C. Existing utilities, structures, and fencing shall be protected during the construction period, and if damaged or removed by the CONTRACTOR in his operations, shall be repaired or replaced at the CONTRACTOR'S expense.
- D. Material rendered not suitable for construction due to fault or negligence of the CONTRACTOR, shall be removed and replaced at no additional cost to the OWNER.

3.03 BEST MANAGEMENT PRACTICES (BMPs)

Provide Best Management Practices (BMPs) prior to the start of on-site construction activities. At no time shall the CONTRACTOR impact any areas beyond the planned limits of disturbance, without prior approval from the Owner.

3.5 EXCAVATION

- A. Areas that receive permanent seeding shall be graded as to leaving space for the vegetative support layer.
- B. Stockpile excavated soil material satisfactory for backfill or fill until required. Place, grade and shape stockpiles for proper drainage. Proper erosion and sediment control measures shall be installed in conjunction with stockpile development.
- C. Dispose of materials unsatisfactory for backfill or fill continuously with the progress of work.

- D. Dispose of trash and debris, and all excess material continuously with the progress of the work.
- E. All excavation shall be dewatered as necessary to provide proper protection.
- F. Excavate unsuitable soil materials encountered that extend below required elevations. The limits of the unsuitable material and depth of removal shall be determined by the CONTRACTOR, and agreed to by the Owner.
- G. Remove shoring and all form materials.
- H. Grade site to prevent surface water run-on into excavations.

3.6 COMPACTION OF STRUCTURAL FILL

- A. Fill shall be placed and nominally compacted in uniform lifts and shall not exceed 6 inches in compacted thickness.
- B. Use power-driven hand tampers for compacting materials adjacent to structures.

3.10 SURFACE WATER

All excavations and fill areas shall be kept free of standing water. Grade surfaces and ditches to drain. Pumping of water shall be required to remove water from areas that cannot drain naturally.

3.11 FILL AND BACKFILL

- A. Remove unsatisfactory materials prior to placement of fill.
- B. Obtain clean earth fill from excavation or other approved sources. The fill shall not contain rock more than 2 inches in its greatest dimension. Rock, fines, and earth shall be distributed throughout each lift so that voids are filled.
- C. Provide borrow material when on-site excavation is not sufficient to grade site to contours and finished grade. All necessary costs shall be included in Bid Price.
- D. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction.
- E. Soil material that has been removed as too wet to permit compaction may be stockpiled or spread to dry. When moisture content is reduced to a satisfactory value, soil material may be used as fill or backfill.

- F. Excavate depression caused by removed stumps or other clearing operations to firm subgrade, fill with clean earth and compact as specified.
- G. Place backfill and fill materials evenly adjacent to structures. Prevent wedging of the backfill against structures by carrying the material uniformly around the structure to approximately the same elevation in each lift.

3.12 GRADING

- A. Finish all surfaces free from irregular changes and grade to drain as shown on the Details.
- B. Portions of the fill damaged due to exposure to weather shall be reworked to meet the project specifications or, at the discretion of the Owner, removed and replaced with conforming material at no additional cost to the OWNER.
- C. Place vegetative support layer to a minimum depth of 6 inches. Where existing on-site supply of topsoil is inadequate to provide the required amount, supply additional topsoil, meeting the specification for Topsoil, from off-site sources. Source and quality of additional material shall be approved by Owner. Cost of off-site material shall be at no additional cost to OWNER. Reference shall be made to the project specifications for requirements of topsoil testing and topsoil amendment options.

3.15 SEASONAL LIMITS

No fill material shall be placed, spread, or rolled while the ground is frozen or thawing, or during unfavorable weather conditions. When the work is interrupted by inclement weather, fill operations shall not be resumed until approved by the Owner. Repairs from inclement weather must be corrected by the CONTRACTOR to the satisfaction and at no additional cost to OWNER.

END OF SECTION 02200

SECTION 02221

TRENCHING, BACKFILLING, AND COMPACTING FOR SLOPE DRAIN

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Excavating trenches, backfilling and compacting for installation of HDPE corrugated slope drainpipe.
- B. Dewatering, protection, and maintenance of trenches, support of existing structures, sheeting and shoring, hauling and disposal of excess excavated materials and fill.

1.2 REFERENCES

- A. OSHA 29 CFR Part 1926, Subpart P, Occupational Safety and Health Standards - Excavations.

PART 2 PRODUCTS

2.1 BACKFILL MATERIALS

- A. Use clean soil for bedding and structural fill around the sides and crown of the pipe.
- B. Re-use excavated soil for backfill as protective cover over pipe.

PART 3 EXECUTION

3.1 PREPARATION AND RESTORATION

- A. Remove sod, topsoil, and other surface treatment and restore to original condition or better upon completion of the Work.

3.2 PROTECTION

- A. Protect excavations by shoring, bracing, or other methods required to prevent cave-in or loose soil from falling into excavation.
- B. Place excavated and other material 2 feet minimum back from edge of trench excavation.
- C. Minimum trench excavation slope conform to OSHA 29 CFR Part 1926, Subpart P.
- D. Underpin adjacent structures, which may be damaged by excavation Work, including utilities and piping.
- E. Notify OWNER immediately of unexpected subsurface conditions.
- F. Protect bottom of excavations from frost.

3.3 TRENCHING

- A. Excavate to the required alignment and grade.
- B. No adjustment in compensation will be made for grade adjustments in excess of one-foot above or below the plan elevations.
- C. Remove any water that accumulates in trench, and construct ditches, flumes, and dams to direct water away from excavation.
- D. Owner may limit the amount of open trench where field conditions or site operations require.
- E. Owner may order additional excavation where unsuitable soil conditions are encountered.
- F. Promptly dispose of excess excavation off-site or in area designated by OWNER.

3.4 BEDDING AND HAUNCHING

- A. Minimum bedding requirements for pipes: The drainpipe shall be placed on compacted soil bedding as shown on the Contract Drawings. If bedding material is necessary to obtain grades, it shall be of nature that will not damage the piping during placement and backfilling.

3.6 BACKFILLING

- A. Backfill immediately following completion of pipe installation.
- B. Take necessary precautions with backfill and construction operations to protect completed utility system from damage.
- C. Backfill with care around structures.
- D. Backfill to the original ground elevation unless shown otherwise on the Contract Drawings.
- E. Place and compact backfill in accordance with Section 02200 – 3.06.

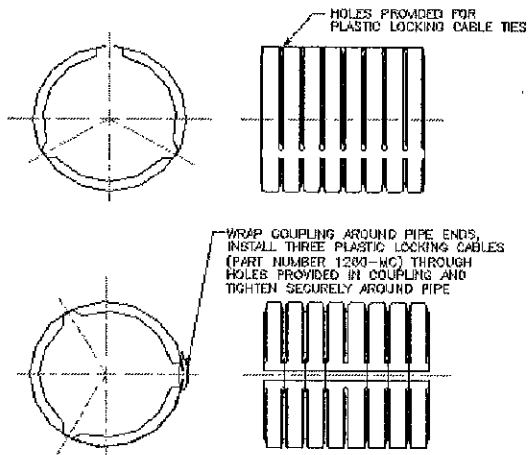
3.7 FIELD QUALITY CONTROL

- A. CONTRACTOR shall be responsible for quality control.

END OF SECTION 02221

DOUBLE WIDE ST COUPLER
10" - 36" DIAMETER

PART #	PIPE SIZE	A
1069AA	10 in (250 mm)	10.8 in (273 mm)
1269AA	12 in (300 mm)	15.8 in (400 mm)
1569AA	15 in (375 mm)	21.0 in (533 mm)
1869AA	18 in (450 mm)	23.6 in (600 mm)
2469AA	24 in (600 mm)	25.5 in (648 mm)
3069AA	30 in (750 mm)	33.0 in (838 mm)
3669AC	36 in (900 mm)	42.0 in (1067 mm)



NOTE: ALL FITTINGS DIMENSIONS ARE FOR REFERENCE ONLY



DRAWING #:	2000	
DRAWN BY:	JCB	09.05.06
APPROVED BY:		
REVISIONS:	TJR	2/24/2015

Product Notes

ADS

Product Note 3.116

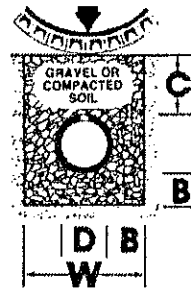
Re: Singlewall Pipe Installation Guide
Date: July 1, 1995

ADS corrugated polyethylene pipe is a flexible conduit, as is corrugated metal pipe. When properly installed, ADS culvert pipe has excellent load bearing strength. To ensure maximum performance, ADS pipe should be installed in accordance with the following installation recommendations:

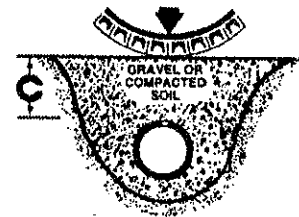
1. Crushed stone, gravel or compacted soil backfill material should be used as the bedding and envelope material around the culvert. The aggregate size should not exceed 1/6 pipe diameter or 4" diameter, whichever is smaller.
2. The corrugated pipe should be laid on grade, on a layer of bedding material as shown for the two types of installations. If native soil is used as the bedding and backfill material, it should be well compacted in six inch layers under the haunches, around the sides and above the pipe to the recommended minimum height of cover.
3. Either flexible (asphalt) or rigid (concrete) pavements may be laid as part of the minimum cover requirements.
4. Site conditions and availability of bedding materials often dictate the type of installation method used.
5. The load bearing capability of flexible conduits is dependent on the type of backfill material used and the degree of compaction achieved. Crushed stone and gravel backfill materials typically reach a compaction level of 90-95% AASHTO standard density without compaction. When native soils are used as backfill material, a compaction level of 90% is required. This is the same minimum compaction that is recommended by all culvert pipe manufacturers and can be achieved by either hand or mechanical tamping.

Two types of installations are recommended for H-20 live loads -- the heaviest legal highway loads. These are the trench and open ditch installations. The minimum height of cover recommendations are the same for both conditions.

Trench Installation



Open Ditch Installation



Minimum Dimensions -
Trench or Open Ditch Installations

Nominal Diameter D	Minimum Thickness B	Minimum Cover C	Min. Trench Width W
3"	4"	12"	20"
4"	4"	12"	21"
6"	4"	12"	23"
8"	4"	12"	25"
10"	4"	12"	28"
12"	5"	12"	31"
15"	5"	12"	34"
18"	6"	12"	39"
24"	6"	12"	48"

Note 1. ADS pipe also is recommended for residential driveway culverts and field crossings. Because these installations are not subject to repeated heavy truck traffic, the recommended compaction level is 85%. This compaction typically can be achieved by hand tamping the backfill material around the pipe. The minimum heights of cover for these installations are as listed in the above table.

Note 2. For more detailed installation data, contact the nearest ADS sales office.

Applicable Specifications and Installation Guidelines

- ASTM F 207 - Standard Specification for Corrugated Polyethylene Tubing and Fittings
- ASTM F 667 - Standard Specification for Large Diameter Corrugated Polyethylene Tubing and Fittings
- AASHTO M 252 - Standard Specification for Corrugated Polyethylene Drainage Tubing
- AASHTO M 292 - Standard Specification for Corrugated Polyethylene Pipe (12" to 24" Diameter)
- ASTM D 2321 - Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity Flow Applications

400 S. TRYON STREET
 CHARLOTTE, NC 28203
 PHONE: 704.376.6223
 fax: 704.376.6223

STOKES COUNTY
 LANDFILL
 GERMANTOWN, NORTH CAROLINA

OUTLET PROTECTION SCHEDULE					
OUTLET ID	LA	LB	LC	LD	APPROX. PROTECTION
001A	10"	12"	14"	16"	18"

OUTLET PROTECTION
 DETAIL - TYPE II
 N18

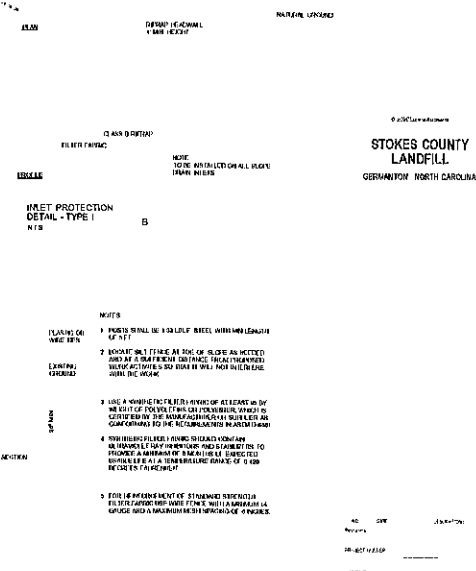
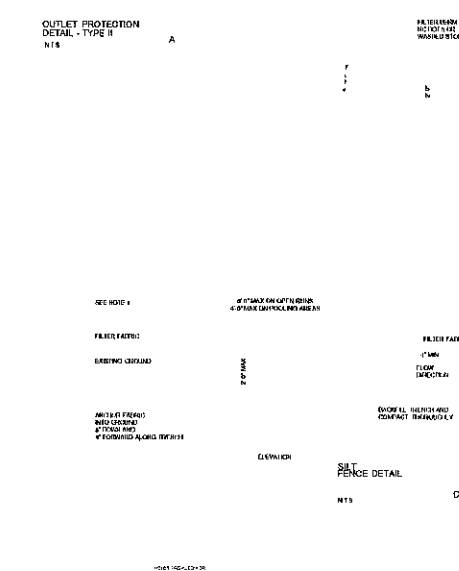
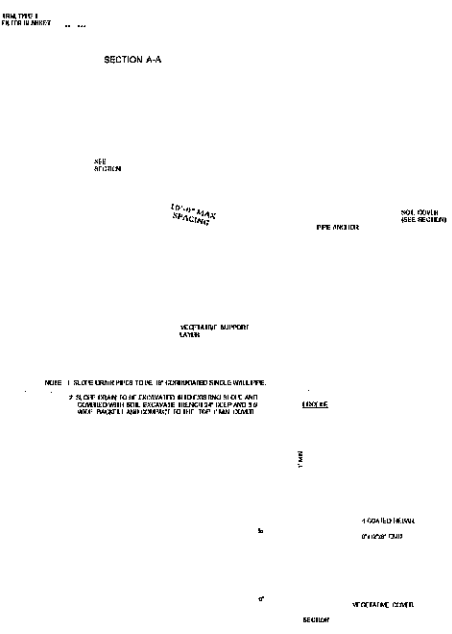
INLET PROTECTION
 DETAIL - TYPE I
 N18

SECTION A
 N18

SECTION B
 N18

SLOPE DRAIN DETAIL
 N18

DOUBLE WIDE COUPLER
 10" - 36" DIAMETER
 N18



- NOTES
1. FILTER FABRIC SHALL BE 100% POLYPROPYLENE WITH A MINIMUM LEAKAGE RATE OF 10%.
 2. BEDDING SHALL BE 18\"/>

DATE: 05/11/10
 DRAWN BY: JLD
 CHECKED BY: JLD
 PROJECT: CONSTRUCTION
 SHEET: 11120205
 SCALE: 1/8\"/>

EROSION AND SEDIMENT
 CONTROL DETAILS

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN FEET AND DECIMALS THEREOF.

