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January 16, 2014

Mr. Ed Mussler, PE
Permitting Branch Head
NC DENR Solid Waste Section
16461 Mail Service Center
Raleigh, NC 27699-1646

**Re: Permit Renewal for Cobles Construction and Demolition Landfill
Alamance County, NC - NC DENR Permit # 01-05**

Dear Mr. Mussler:

Please find the enclosed permit renewal submittal for the Coble's Construction and Demolition (C&D) Landfill in Liberty, Alamance County, North Carolina. This submittal consists of a request for a minor modification to the permit, and an update of closure and post-closure care plan originally submitted in August 20, 2013. The Certification for Closure of 9.8 acres of the landfill that was completed in the summer of 2013 was provided to the Section personnel at the meeting held at the landfill in the August.

The current permit to operate was issued on January 20, 2012 and expires on January 30, 2014. No changes have been made to the Facility Plan, Engineering Plan or Operations Plan since that permit was approved. Following the recently completed partial landfill closure, Joyce Engineering, on behalf of the Coble's Sandrock C&D Landfill, is requesting a permit modification to the permitted limits of waste. The completed partial closure of Phase 1, Phase 2 Cell A and Phase 2 Cell B terminates at the toe of slope by the landfill perimeter road on the west side of the closed Cells. The perimeter road was initially graded on the west side to provide access around the landfill, and thus no waste has ever been placed beneath the road or its embankment. The area of concern should be excluded from the permitted area for disposal. The attached drawing is provided to illustrate the area that we are requesting to be excluded from the permitted area. Table 1, below, reflects the proposed reductions.

Table 1 – Proposed Exclusions to the Permitted Areas

LF Section	Permitted Acreage	Excluded Acreage	Remaining Acreage
Phase 1	7.0	0.5	6.5
Phase Cell 2 A	1.1	0.1	1.0
Phase Cell 2 B	4.7	0.2	4.5
Phase 3 A	6.3	0	6.3
Phase 3 B	5.8	0	5.8
Permitted Total	24.9	0.8	24.1

With the referenced exclusions of the permitted areas, the modification to the permit intends to reduce the said areas from landfill closure requirement. The permitted areas would be thus reduced from 24.9 acres to 24.1 acres.

Since the permit to construct Phase 3A and 3B was originally approved by the Section on February 19, 2009, Coble's Sandrock was required to institute financial assurance for closure and post-closure care obligations in the amount of \$1,301,874. Coble's Sandrock planned to meet this requirement through the payment of five installments of \$260,374.80 from 2010 through 2014. Payments were made in 2010 and 2011 totaling \$520,749.60. Due to the pending closure, funds for the 2012 and 2013 installment were diverted to pay for landfill partial closure, which reduced the overall site risk and alleviated some for the financial assurance burden at the site.

The revised closure plan limits the open acreage to no more than 4 acres at any time. The attached closure plan includes closure and post-closure care estimates to reflect this change. The attached post-closure care cost is estimated to be \$28,919.70 annually or a total of \$867,591 for 30 years. The attached Closure Cost Estimate for a 4.0 acre event is \$87,948. Combined, these costs total \$955,539 which is the Revised Program Balance as of 2013, shown in Table 2 below.

Coble's Sandrock proposes to deduct the payments made toward financial assurance in 2010 and 2011 from the revised estimate and complete payment of the remaining obligation in two remaining installments (2014 and 2015). This change is reflected in the Table 2 below:

Table 2 – Financial Assurance Payment Schedule

Year	Payment Amount	Original Program Balance	Revised Program Balance 2013		
Estimate		\$ 1,301,874.00	\$ 955,539.00	Cost breakdown below	
2010	\$ 260,374.80	\$ 1,041,499.20			
2011	\$ 260,374.80	\$ 781,124.40			
2012	\$ -	\$ 781,124.40	\$ 434,789.40	Remaining balance	
2013	\$ -	\$	\$ -		
2014	\$ 217,394.70		\$ 217,394.70		
2015	\$ 217,394.70		\$ -		
Total	\$ 955,539.00				
	\$ 28,919.70	Annual Post-Closure Care Cost			
	\$ 867,591.00	30 year Post-Closure Care Cost			
	\$ 87,948.00	Closure Cost estimate for max. 4 acres to close any one time			
	\$ 955,539.00	Proposed 4 acre closure and 30 year post-closure care cost			
	\$ 520,749.60	Payments in 2010 and 2011 total			
	\$ 434,789.40	Remaining payment balance			

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Page 3 of 3

Please do not hesitate to contact me during the review of this application if there are any comments or concerns related to its contents. You can reach me by phone 336-323-0092 or e-mail at hannu@joyceengineering.com

Sincerely,

JOYCE ENGINEERING, INC.



Hannu Kemppinen, P.G.

Senior Project Consultant

Cc: Kent and Brenda Coble, Coble's Sandrock C&D Landfill
Geof Little, Sarah Rice, Elizabeth Werner, and John Patrone, SWS
Butch Joyce, Joyce Engineering, Inc.

Enclosure: Record Final Cover Drawing
Closure & Post-Closure Care Plan (December 2013)

CLOSURE & POST-CLOSURE CARE PLAN (.0543)

CLOSURE

1. Description of Cap System:

The cap system to be used is designed to minimize infiltration and erosion. The cap system will consist of:

- A low-permeability infiltration layer of at least 18 inches with a permeability not greater than 1.0×10^{-5} cm/sec;
- An erosion layer that contains a minimum of 18 inches of earthen material that is capable of sustaining native plant growth.

Construction of the cap system will conform to the plans prepared in accordance with Rule .0540 of this Section and the following requirements:

- (A) Post-settlement surface slopes will be a minimum of five percent and a maximum of 33 percent or as shown on the closure plan drawings; and
- (B) A gas venting or collection system will be installed below the low-permeability barrier to minimize pressures exerted on the barrier.

The construction of the closure cap will be in accordance with the Volume 2 Application for Permit to Construct Phase 3 and the specifications provided in Appendix IV; the Application to Construct Phase 3 was approved by the SWS on 2/19/2009.

2. Closure Area

The maximum closure area for the landfill permitted in 2009 for the Phase 3 expansion was 24.9 acres. Following the partial closure of the 9.8 acres in the fall of 2013 the remaining open landfill area will be 15.1 acres. The proposed permit modification would exclude 0.8 acres on west side of Phase 1 and 2 from the permitted limits of waste and the requirement of closure. By subtracting the proposed excluded are, the remaining open landfill area will be 14.3 acres. The Cobles plan to limit active landfill area to no more than 4 acres at any one time.

3. Waste Inventory

The projected total tonnage in place at the end of Phase 3 is approximately 865,280 tons. This amount includes the tonnages from Phase 1 and Phase 2 in addition to the tonnage from Phase 3, which is estimated to be 440,131 tons.

4. Schedule

As of this permit renewal, Phase 3 has a projected operating life of approximately 17 years. Thus, closure of the entire landfill is not anticipated until 2030, assuming waste disposal in Phase 3 continues at the current annual tonnage. As noted above in 2. Closure Area, the Cobles plan to limit active landfill area to no more than 4 acres at any one time, thus each closure event will be limited to maximum of four acres in area. Prior to beginning final closure, Coble's Sandrock

will notify the Division that a Notice of Intent to close the facility has been placed in the operating record.

Closure activities are proposed to begin within 30 days of final receipt of waste. Construction of the closure cap is to be completed within 180 days following the initiation of closure activities. The total length of the proposed closure period is 210 days following the final receipt of waste. Approximate closure milestones are shown below.

Proposed Closure Milestones and Schedule

Milestone	Proposed Schedule from the Date of Final Receipt of Waste
Testing of borrow sources	Within 6 months prior to closure
Grading of intermediate cover	Within 30 to 60 days
Placement of soil cap	30 to 150 days
Final inspection of cap by P.E.	150 to 180 days
Construction of stormwater controls	90 to 180 days
Seeding and mulching	150 to 180 days
Preparation of survey plat	180 to 210 days
Submittal of closure certification	180 to 210 days

5. Cost Estimate for Closure

Closure Cost Estimate for Each Four Acre Event

Component	Quantity	Unit	Unit Cost	Total
Mobilization	1	LS	\$5,000	\$5,000
18" Clay (10 ⁻⁵ cm/sec)	9,680	CY	\$3.50	\$33,880
18" Vegetative Soil	9,680	CY	\$3.50	\$33,880
Seeding/Re-vegetation	4	ACRE	\$1,500	\$6,000
Survey	1	LS	\$5,000	\$5,000
			Subtotal:	\$83,760
Engineering/CQA (~5%)				\$4,188
On-site soil for closure assumed				
			TOTAL	\$87,948

6. Closure Certification

A Professional Engineer, registered in the State of North Carolina, will verify that the closure has been completed in accordance with the Closure Plan. The contents of the signed Certification Report will be as described below.

Certification Reports:

The Construction Quality Assurance (CQA) report will contain the results of all the construction quality assurance and construction quality control testing, including documentation of any failed test results, descriptions of procedures used to correct the improperly installed material, and results of all retesting performed. The CQA report will contain record drawings noting any deviation from the approved engineering plans and will also contain a comprehensive narrative including, but not limited to, daily reports from the project engineer, a series of color photographs of major project features, and documentation of proceedings of all progress and troubleshooting meetings. The CQA report will be submitted after completion of construction of the cap system in accordance with the requirements of Rule .0543. The CQA report must bear the seal of the project engineer and a certification that construction was completed in accordance with the CQA Plan and acceptable engineering practices.

7. Deed Recordation

Following closure, the owner or operator will record a notation on the deed to the landfill facility property at the local County Register of Deeds office, or some other instrument that is normally examined during title search, and notify the Division that the notation has been recorded and a copy has been placed in the operating record. The notation on the deed shall in perpetuity notify any potential purchaser of the property that the land has been used as a Construction and Demolition (C&D) landfill unit or facility and its use is restricted under the closure plan approved by the Division.

POST CLOSURE

Post-Closure activities will be conducted at the landfill for a period of 30 years following closure of the landfill. The length of the period can be increased or decreased in accordance with Division directives.

1. Contact

Coble’s Sandrock, Inc. will handle questions and/or problems which might occur during the Post-Closure care period.

CONTACT PERSON:	Mr. Kent Coble
OWNER:	Mr. Kent Coble
ADDRESS:	5833 Foster Store Road Liberty, North Carolina 27298
PHONE NUMBER:	(336) 565-4750
FAX:	(336) 565-4752

2. Security

Access to the site will be controlled by the use of barriers and gates at roadway entrances. These control devices will be maintained throughout the post-closure care period, and inspected as part of the monthly inspection program. All barriers and gates will be clearly marked with signs stating the name and nature of the facility and the person to contact in case of emergency or breach of security.

3. Post-Closure Maintenance

Post-closure maintenance and monitoring will be conducted at the landfill for a period of 30 years after final closure. The Division may decrease the length of the post-closure period if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment, and the Division approves this demonstration. The period might be increased by the Division if the Division determines that the lengthened period is necessary to protect human health and the environment. Monitoring will include semi-annual sampling of groundwater and surface water, quarterly gas monitoring, and quarterly inspection of the final cover and monitoring and control systems. Maintenance needs identified through the monitoring program will be initiated no later than 60 days after the discovery, and within 24 hours if a danger or eminent threat to human health or the environment is indicated. Minor cap maintenance may be deferred until there is a sufficient amount of work to justify the mobilization of equipment and personnel.

Soil will be added to the cap as necessary to correct the effects of settlement and subsidence of the soil cap and to prevent run-on and run-off from eroding the final cap.

Stormwater control devices, surveyed benchmarks, groundwater monitoring wells, surface water monitoring/sampling gauges and Landfill Gas (LFG) wells will be protected and maintained.

Vegetation will be mowed twice per year, fertilized once every three years and re-seeded (as necessary) once every three years.

The security fencing, gates, and access roads will be maintained and repaired, as necessary.

4. Inspection Plan

Routine inspections will be conducted throughout the post-closure care period. These inspections will be carried out quarterly unless problems are detected that indicate that more frequent visits are warranted. Potential impacts to the public and environment will be considered in determining the inspection frequency. Items to be included in the quarterly inspection will be as follows:

- Access and security control,
- Stormwater management,
- Erosion and sediment control,
- Gas management,

- Groundwater and landfill gas monitoring systems, and
- Vector control.

The quarterly inspections will be carried out by someone properly trained and knowledgeable about landfills, such as the landfill owner, operator or engineering consultant. The results of the inspections will be documented. Please see Appendix IX of the Volume 2 of Application for Permit to Construct Phase3 for an example Post Closure Inspection Form. If inspections indicate that repairs are necessary, repairs will be initiated as soon as practical.

In addition to the routine quarterly inspections, special inspections will be performed and documented after events that may likely cause damage to the integrity of the landfill cover, such as heavy rainfall events. Inspection may also be necessary following written or verbal complaints, vandalism or fires. Following special inspections, any necessary repairs will be initiated as soon as practical.

Records of all inspections will be kept in the operating record.

5. Post-Closure Land Use

The primary land use for the site after closure of the landfill will be open dormant green space.

Post-Closure Cost Estimate

An estimate of Post-Closure Care Costs is provided on the following page. All costs are given in 2013 dollars.

ITEM	UNIT	QUANTITY	UNIT COST	ANNUAL COST
INSPECTIONS/ RECORD KEEPING	per trip	4	\$ 500.00	\$ 2,000.00
MONITORING				
Explosive gases (quarterly)	per trip	4	\$ 400.00	\$ 1,600.00
Groundwater/Surfacewater (semi-annually)				
Sampling	per trip	2	\$1,800.00	\$ 3,600.00
Analysis	per trip	2	\$2,000.00	\$ 4,000.00
Reporting	per trip	2	\$2,900.00	\$ 5,800.00
Subtotal				\$ 15,000.00
ROUTINE MAINTENANCE				
Mowing	acre	14.3	\$ 100.00	\$ 1,430.00
Fertilizing	acre	1.4	\$ 100.00	\$ 140.00
Reseeding	acre	1.4	\$1,500.00	\$ 2,100.00
Vector and Rodent Control	acre	14.3	\$ 25.00	\$ 357.50
Subtotal				\$ 4,027.50
WELL MAINTENANCE				
Groundwater Wells	lump sum	1	\$ 500.00	\$ 500.00
Gas Detection Probes	lump sum	1	\$ 250.00	\$ 250.00
Subtotal				\$ 750.00
CAP REPAIR	lump sum	1	\$5,000.00	\$ 5,000.00
TOTAL OF ABOVE ITEMS				\$ 26,777.50
ENGINEERING	-	-	\$ 0.03	\$ 803.33
CONTINGENCY	-	-	\$ 0.05	\$ 1,338.88
TOTAL ANNUAL POST-CLOSURE COST (IN 2013 DOLLARS)				\$ 28,919.70
TOTAL 30 YEAR POST-CLOSURE COST (IN 2013 DOLLARS)				\$ 867,591.00



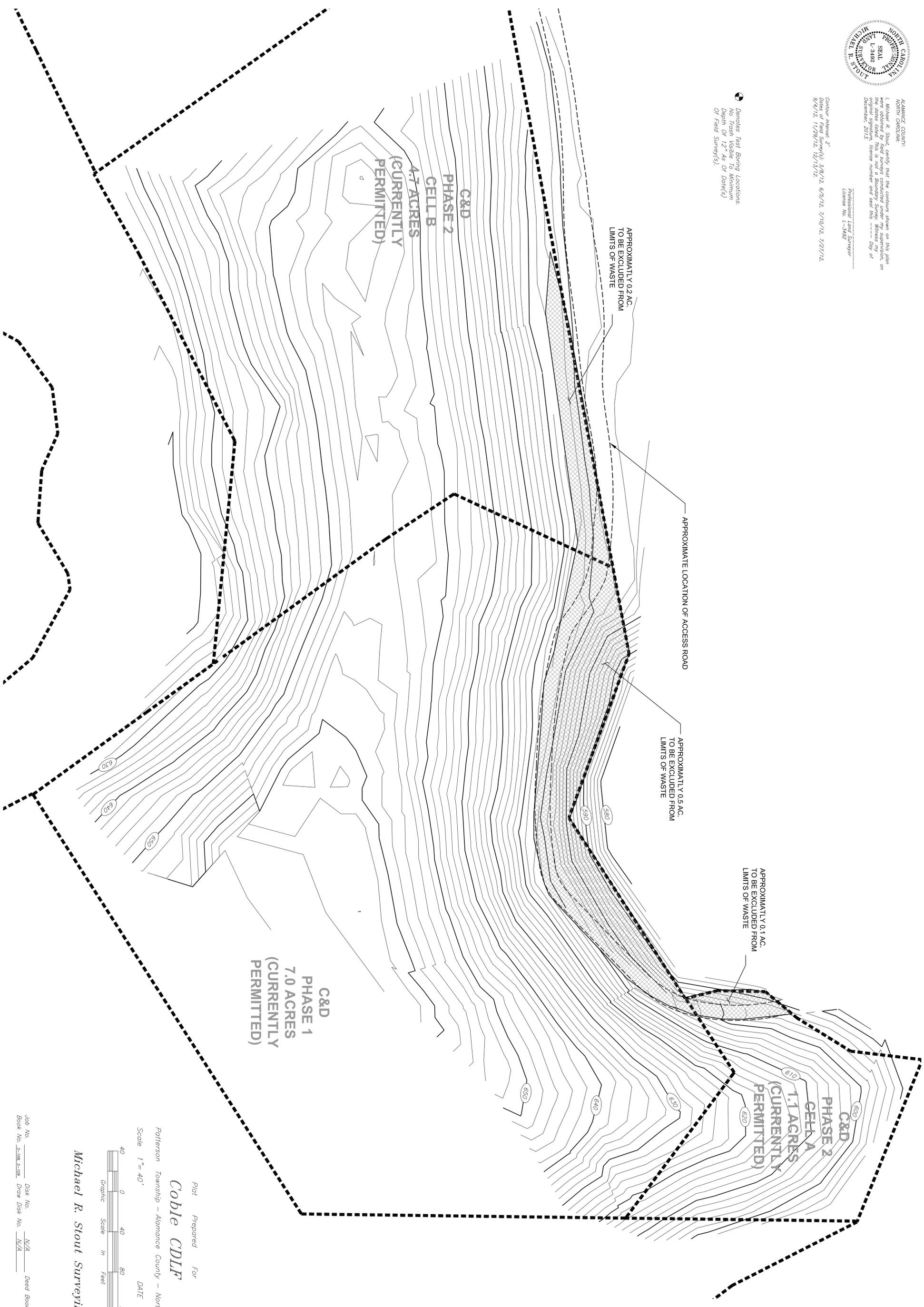
ALLAMANCE COUNTY,
NORTH CAROLINA

I, Michael R. Stout, certify that the contours shown on this plan were prepared by me or under my direct supervision and that I am a duly Licensed Professional Land Surveyor in the State of North Carolina. My license number is L-3492. My commission expires on December 31, 2015.

Professional Land Surveyor
License No. L-3492

Contour Interval: 2'
Dates of Field Surveys: 3/8/12, 6/9/12, 7/10/12, 7/27/12,
9/4/12, 11/29/12, 12/13/12

Denotes Test Boring Locations.
No Trash Visible To Minimum
Depth Of 12" As Of Date(s)
Of Field Survey(s).



Plot Prepared For
Coble CDLF
Patterson Township – Allamance County – North Carolina
Scale 1" = 40'
DATE _____

Graphic Scale in Feet
40 0 40 80 120

Michael R. Stout Surveying

Job No. _____ Disk No. _____ N/A _____ Deed Book _____
Book No. S-188.5-192 Draw Disk No. N/A _____

RECORD FINAL COVER