

EXHIBIT E

Exhibit E consists of three parts:

Part 1-is a Driveway Permit from NCDOT-dated May 5, 2015. It consists of eleven (11) pages.

Part 2-is a drawing identified as "Elliot Farm Road-Road Widening Plan." It consists of one (1) page.

Part 3-is a Traffic Impact Analysis Report for Elliot Farm-Cumberland County, NC. It was prepared by Kimley-Horn and Associates for Crawford Design Company in November, 2014. It consists of 116 pages.

EXHIBIT E - Part 1 DN



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

May 5, 2015

Dohn Broadwell Jr.
903 Hay Street
Fayetteville, NC 28305

**SUBJECT: APPLICATION - DRIVEWAY ENTRANCE ONTO
SR 1606
PERMIT NUMBER 15-026-023
Cumberland County**

Dear Mr. Broadwell:

Please find attached for your file a copy of the Driveway Application, which has been properly executed. This Driveway Permit is approved subject to the provisions stated in the Permit Application Agreement and the following special provisions:

- Driveway construction must be completed within one year after the approval date. This Driveway Permit becomes null and void after that time and the Applicant will be required to reapply for access. Consideration may be given for time extensions on a case by case basis.
- An executed copy of this Permit will be present at the construction site at all times during construction. NCDOT reserves the right to stop all work unless evidence of approval can be shown.
- **Any change or alteration of the existing or proposed property use shall require a new Driveway Permit. Failure to secure required Permits prior to construction or change in property usage may result in the removal of the driveway at the expense of the Permittee.**
- **Changes noted in red on the plans shall be incorporated into and made a part of the approved Permit.**
- Driveway construction and/or roadway improvements within the right of way shall not begin until a Performance and Indemnity Bond in the amount of \$100,000.00 has been received by the District Engineer. The Division Engineer will release Performance and Indemnity Bonds one year following satisfactory completion of the work. The Permittee is responsible for notifying the bonding company after the one year period has expired and providing it with a copy of the approved Permit. The bonding company must submit a request for the release of

P.O. Box 1150, Fayetteville, N.C. 28302
Voice: 910.486.1496 Fax: 910.437.2529

the Bond and a copy of the Permit to the Division Engineer at 558 Gillespie Street, Fayetteville, NC 28301.

- **It is the responsibility of the Permittee to provide inspection of the work that is performed on the right of way as a part of this Permit. This work includes, but is not limited to, culvert and drainage structure installation, roadway widening, grading work, pavement structure installation (subgrade, base, and pavement), and traffic marking and marker installation. Please note that the Permittee is also responsible for contacting the appropriate Assistant District Engineer at (910) 486-1496 at least 24 hours prior to beginning construction and prior to "critical events," such as backfilling pipe, installing curb and gutter, and placing asphalt.**
 1. **The Permittee shall notify Senior Assistant District Engineer Gary A. Burton at (910) 486-1496 prior to beginning work in Cumberland County.**
- **Randy K. Wise, PE, District Engineer, shall be notified in writing at 600 Southern Avenue, Fayetteville, NC 28306 upon completion of work associated with this Permit. The Permittee shall provide a signed and sealed letter from a Professional Engineer certifying that the materials and construction associated with the Permit were in compliance with the approved plans, Permit, and NCDOT standards and specifications.**
- All out parcels or excluded areas shall be served internally, with no additional access onto abutting roadways permitted. This condition should be conveyed in any buy, sell, lease, rent, or subdivision agreement.
- **Approval of the Driveway Permit does not constitute review or approval of subdivision streets for NCDOT maintenance.** If addition of subdivision streets to the State Maintenance System is desired, plans for review and a Petition for Addition shall be submitted to the District Engineer's office. For further information, contact Mr. David Plummer, Engineering Technician, at (910) 486-1496.
- All materials and construction shall be in accordance with NCDOT Standards and Specifications, including but not limited to, the NCDOT Standard Specifications for Roads and Structures 2012, the NCDOT Roadway Standards Drawings 2012, and NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way.
- The traveling public shall be warned of construction with complete and proper signing and traffic control devices in accordance with the current Manual on Uniform Traffic Devices (MUTCD). No work shall be performed in the right of way unless this requirement is satisfied. NCDOT reserves the right to require a written traffic control plan for encroachment operations. All contractor personnel will be required to wear a class II ANSI approved safety vest while working within DOT rights of way.
- NCDOT does not guarantee the right of way on this road, nor will it be responsible for any claim for damages brought by any property owner by reason of the installation. All right of way and easements necessary for construction and maintenance shall be dedicated to NCDOT and proof of dedication shall be furnished to the District Engineer prior to beginning work.
- Two-way traffic shall be maintained at all times.

- **No lane of traffic on and SR 1606 (Elliot Farm Road) shall be closed or restricted between the hours of 6:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m., or on Sundays, holidays, special events, or as directed by the Engineer.**
- NCDOT reserves the right to further limit, restrict, or suspend operations within the right of way if, in the opinion of NCDOT, safety or traffic conditions warrant such action.
- Mr. Kent Langdon, Assistant Division Traffic Engineer, shall be notified at (910) 486-1452 prior to beginning work on the right of way if there are existing NCDOT signs, traffic signals, or signal equipment in or near the proposed work zone. Costs to relocate, replace, or repair NCDOT signs, signals, or associated equipment shall be the responsibility of the Permittee. Furthermore, any revisions to existing traffic signals or the installation of any new traffic signals shall require a Signal Agreement between the Permittee and the NCDOT. Additional information concerning this subject can be obtained from the Division Traffic Engineer.
- When surface area in excess of one acre will be disturbed, the Permittee shall submit a Sediment and Erosion Control Plan which has been approved by the appropriate regulatory agency or authority prior to beginning any work on the right of way. Failure to provide this information shall be grounds for suspension of operations.
- All erosion control devices and measures shall be constructed, installed, maintained, and removed by the Permittee in accordance with all applicable Federal, State, and Local laws, regulations, ordinances, and policies. All earth areas shall be re-graded and seeded in accordance with current NCDOT Standards and Specifications.
- It shall be the responsibility of the Permittee to determine the location of other utilities within the work zone. The Permittee shall be responsible for notifying other utility owners and providing protection and safeguards to prevent damage or interruption to existing facilities and to maintain accessibility to existing utilities.
- Curb cuts and ramps for handicapped persons shall be constructed in accordance with the current NCDOT "Standard for Wheelchair Ramp Curb Cuts" and the Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities.
- Access granted under this permit shall remain closed (i.e. barricaded) to all traffic until all requirements relating to traffic control and signalization have been satisfied.
- Any proposed landscaping or landscape plantings shall be approved by the Division Engineer under an NCDOT Planting Permit. For further information, please contact Mr. James Barnes, Division Roadside Environmental Engineer, at (910) 437-2611.
- Pre-cast concrete manholes, catch basins, or other drainage structures shall be pre-approved by NCDOT for use within highway rights of way.
- Manhole rings and covers, valve covers, and storm drainage grates and frames shall be traffic bearing types approved by NCDOT for use within highway Rights of Way.
- Any proposed driveway shall be paved to the right of way line of SR 1606, measured from the edge of existing pavement.
- The entrance grade shall be constructed in accordance with Figure 16 (attached).

- Pipe, if required, shall be manufactured from reinforced concrete or steel, shall be a minimum diameter of 18 inches, and shall be inspected for proper installation prior to backfilling. Contact Mr. Jerome Hasty, Road Maintenance Supervisor, at (910) 486-1421 for inspection. Please provide at least 24 hours advance notice for inspection.
 - Excavated areas adjacent to pavement having more than a 2" drop shall be safed up at a 6:1 or flatter slope and designated by appropriate delineation during periods of inactivity, including, but not limited to, night and weekend hours. Excavated material shall not be placed on the roadway at any time.
 - **The proposed entrance onto SR 1606 shall be constructed with a 30 foot ingress and egress edge of pavement radii. The Permittee will be required to provide a right turn lane that consists of a 150 foot taper and 50 feet of full storage, and a left turn lane that consists of a 150 foot taper and 50' feet of full storage as shown on the attached plans.** The required widening is to reduce the potential for rear end collisions and accidents at the entrances to Elliot Farm Development Subdivision with the amount of traffic that the site will generate added to the traffic on SR 1606. Studies have shown that without the presence of adequate turn lanes and tapers the potential for rear end type crashes are dramatically increased at business and commercial roadside developments. This translates into a higher accident potential for both the traveling public and customers of the site. These improvements also preserve roadway capacity and the useful life of the road; decrease travel time and congestion, and improve access to properties.
 - The Permittee will be required to mill at a depth of 0" – 1" for a distance of fifty feet at the beginning and fifty feet at the end of the project on SR 1606 to allow for a smooth transition with the existing pavement. This milled area will not include the intermediate and base course areas that are to be constructed as part of the required widening (see plan).
 - **The pavement design within the right of way shall be as follows:**
 - 3.5" B 25.0 B**
 - * **2.5" I 19.0 B**
 - * **1" SF 9.5A overlay over the entire widening on SR 1606**
 - **A certified pavement structure report, signed by a Professional Engineer, shall be submitted to the District Engineer's office and shall indicate the following:**
 - * **Pavement thickness by type**
 - * **Base thickness**
 - * **Base density**
 - * **Subgrade density**
 - * **Core and/or test locations**
- Test frequency and method shall be in conformance with the NCDOT "Materials and Tests" Manual. A letter of approval, or recommendations for compliance, will be provided upon receipt and review of the report.**
- A 1/4-inch per foot pavement slope, based on the existing centerline in tangent sections, is required. In addition, a smooth transition must be maintained along areas of super-elevation.

The proposed widening may necessitate wedging or resurfacing one half of the existing roadway to accomplish this requirement. Widened areas less than 6 foot wide shall utilize a full depth asphalt pavement design. **Widening is measured from the edge of existing pavement.**

Pavement Markings, Markers and Signing

- The Permittee shall be responsible for the removal, relocation, and / or installation of all pavement markings and NCDOT signs within the limits affected by the development. Pavement marking and signing plans shall be submitted to the District Engineer for approval prior to the installation of any signs and/or pavement markings.
- The Permittee has been approved to use NCDOT approved thermoplastic for all pavement markings (edge lines, lane lines and centerlines) on SR 1606 **(The use of waterborne paint or thermoplastic pavement markings is to be determined according to the location of the site and AADT of the roadway)** Pavement marking and marker changes shall be accomplished by completely covering the lines by means of asphalt overlaying or by an approved method of grinding. **In no case shall the application of liquid asphalt "tack" be accepted as an approved method for covering pavement markings.**
- Pavement marking and marker changes shall be accomplished by completely covering the lines by means of asphalt overlaying or by an approved method of grinding. **In no case shall the application of liquid asphalt "tack" be accepted as an approved method for covering pavement markings.**
- All work performed under this section shall meet standards outlined in the current Manual on Uniform Traffic Control Devices (MUTCD) published by the Federal Highway Administration, NCDOT Supplement to the MUTCD, and the current edition of the NCDOT Roadway Standard Drawings.
- The pavement marking contractor is required to have at least one member of every pavement marking crew that is working on the project, preferably the Crew Supervisor, be certified through the NCDOT Pavement Marking Technician Certification Process. For more information please contact the **Work Zone Traffic Control Unit** at (919) 773-2800 or <http://www.ncdot.org/doh/preconstruct/wztc/>
- Prior to installing pavement markings, please contact Mr. Kent Langdon with the NCDOT Division Six Traffic Services Unit at 910-486-1452 to review the proposed pavement-marking layout. This notification should take place a minimum of 48 hours in advance of the pavement marking installation.
- Failure to contact the Traffic Services Unit to review the pavement-marking layout prior to installation may result in the removal and reinstallation of the markings at the expense of the Permittee.

WORK ZONE TRAFFIC CONTROL QUALIFICATIONS AND TRAINING PROGRAM

Effective July 1, 2010, all flagging operations within NCDOT Right of Way require qualified and trained Work Zone Flaggers.

Effective July 1, 2011, qualified and trained Work Zone Traffic Control Supervisors will be required on Significant Projects.

Training for this certification is provided by NCDOT approved training sources and by private entities that have been pre-approved to train themselves. If you have questions, contact our web site at www.ncdot.org/-wztc, or contact Stuart Bourne, P.E. with NCDOT Traffic Management Unit at (919) 662-4338 or sbourne@ncdot.gov.

If additional information is required, please contact Mr. Randy K. Wise, PE, District Engineer, at (910) 486-1496.

Sincerely,



Randy K. Wise, PE
District Engineer

RKW:gab

cc: Mr. Greg W. Burns, PE, Division Engineer
Mr. Bill Hammond, Highway Maintenance Engineer

15-026-023

APPLICATION IDENTIFICATION		N.C. DEPARTMENT OF TRANSPORTATION STREET AND DRIVEWAY ACCESS PERMIT APPLICATION
Driveway Permit No.	Date of Application	
County: Cumberland		
Development Name: Elliot Farm Mixed-Use Development		

LOCATION OF PROPERTY:	
Route/Road:	SR1606
Exact Distance	800
<input type="checkbox"/> Miles	<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W
<input checked="" type="checkbox"/> Feet	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
From the Intersection of Route No.	SR1606 and Route No. SR1607 Toward SR1605
Property Will Be Used For: <input checked="" type="checkbox"/> Residential /Subdivision <input type="checkbox"/> Commercial <input type="checkbox"/> Educational Facilities <input type="checkbox"/> TND <input type="checkbox"/> Emergency Services <input type="checkbox"/> Other	
Property:	<input type="checkbox"/> is <input checked="" type="checkbox"/> is not within any City Zoning Area.

AGREEMENT

- I, the undersigned property owner, request access and permission to construct driveway(s) or street(s) on public right-of-way at the above location.
- I agree to construct and maintain driveway(s) or street entrance(s) in absolute conformance with the current "Policy on Street and Driveway Access to North Carolina Highways" as adopted by the North Carolina Department of Transportation.
- I agree that no signs or objects will be placed on or over the public right-of-way other than those approved by NCDOT.
- I agree that the driveway(s) or street(s) will be constructed as shown on the attached plans.
- I agree that that driveway(s) or street(s) as used in this agreement include any approach tapers, storage lanes or speed change lanes as deemed necessary.
- I agree that if any future improvements to the roadway become necessary, the portion of driveway(s) or street(s) located on public right-of-way will be considered the property of the North Carolina Department of Transportation, and I will not be entitled to reimbursement or have any claim for present expenditures for driveway or street construction.
- I agree that this permit becomes void if construction of driveway(s) or street(s) is not completed within the time specified by the "Policy on Street and Driveway Access to North Carolina Highways".
- I agree to pay a \$50 construction inspection fee. Make checks payable to NCDOT. This fee will be reimbursed if application is denied.
- I agree to construct and maintain the driveway(s) or street(s) in a safe manner so as not to interfere with or endanger the public travel.
- I agree to provide during and following construction proper signs, signal lights, flaggers and other warning devices for the protection of traffic in conformance with the current "Manual on Uniform Traffic Control Devices for Streets and Highways" and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the District Engineer.
- I agree to indemnify and save harmless the North Carolina Department of Transportation from all damages and claims for damage that may arise by reason of this construction.
- I agree that the North Carolina Department of Transportation will assume no responsibility for any damages that may be caused to such facilities, within the highway right-of-way limits, in carrying out its construction.
- I agree to provide a Performance and Indemnity Bond in the amount specified by the Division of Highways for any construction proposed on the State Highway system.
- The granting of this permit is subject to the regulatory powers of the NC Department of Transportation as provided by law and as set forth in the N.C. Policy on Driveways and shall not be construed as a contract access point.
- I agree that the entire cost of constructing and maintaining an approved private street or driveway access connection and conditions of this permit will be borne by the property owner, the applicant, and their grantees, successors, and assignees.
- I AGREE TO NOTIFY THE DISTRICT ENGINEER WHEN THE PROPOSED WORK BEGINS AND WHEN IT IS COMPLETED.

RECEIVED
APR 24 2015
DIVISION 6-DISTRICT 7

SIGNATURES OF APPLICANT

PROPERTY OWNER (APPLICANT)

COMPANY Dohn Broadwell, Jr. / Broadwell Land Company

SIGNATURE *Dohn Broadwell, Jr.*

ADDRESS 903 Hay Street
Fayetteville, NC 28305 Phone No. 910-484-5193

NAME _____

SIGNATURE _____

ADDRESS _____

WITNESS

JAMES ROSE

Jim Rose

903 HAY ST
FAYETTEVILLE NC 28305

AUTHORIZED AGENT

COMPANY Kevin Lindsay, PE / Crawford Design Company

SIGNATURE *Kevin Lindsay*

ADDRESS 116 N. Cool Spring Street
Fayetteville, NC 28301 Phone No. 910-221-0033

NAME _____

SIGNATURE _____

ADDRESS _____

WITNESS

Gina Jesus

Gina Jesus

116 N. Cool Spring Street
Fayetteville, NC 28301

APPROVALS

APPLICATION RECEIVED BY DISTRICT ENGINEER

 SIGNATURE

 DATE

APPLICATION APPROVED BY LOCAL GOVERNMENTAL AUTHORITY (when required)

 SIGNATURE

 TITLE

 DATE

APPLICATION APPROVED BY NCDOT

Randy K...
 SIGNATURE

District Engineer
 TITLE

5-5-2015
 DATE

INSPECTION BY NCDOT

 SIGNATURE

 TITLE

 DATE

COMMENTS:

TRAFFIC CONTROL AND WORK ZONE SAFETY

The Contractor shall maintain traffic during construction and provide, install, and maintain all traffic control devices in accordance with these project guidelines, the Project Special Provisions, North Carolina Department of Transportation Standard Specifications for Roads and Structures 2012, and the current edition of the Manual of Uniform Traffic Control Devices (MUTCD).

The Contractor shall utilize complete and proper traffic controls and traffic control devices during all operations. All traffic control and traffic control devices required for any operation shall be functional and in place prior to the commencement of that operation. Signs for temporary operations shall be removed during periods of inactivity. The Contractor is required to leave the project in a manner that will be safe to the traveling public and which will not impede motorists.

Traffic movements through lane closures on roads with two way traffic shall be controlled by flaggers stationed at each end of the work zone. In situations where sight distance is limited, the Contractor shall provide additional means of controlling traffic, including, but not limited to, two-way radios, pilot vehicles, or additional flaggers. Flaggers shall be competent personnel, adequately trained in flagging procedures, and furnished with proper safety devices and equipment, including, but not limited to, safety vests and stop/slow paddles.

All personnel when working in traffic areas or areas in close proximity to traffic shall wear an approved safety vest, or shirt or jacket which meets the color requirements of the Manual of Uniform Traffic Control Devices (MUTCD).

The Contractor shall comply with all applicable Federal, State, and local laws, ordinances, and regulations governing safety, health, and sanitation, and shall provide all safeguards, safety devices, and protective equipment, and shall take any other needed actions, on his own responsibility that are reasonably necessary to protect the life and health of employees on the job and the safety of the public, and to protect property in connection with the performance of the work covered by the contract.

Failure to comply with any of the requirements for safety and traffic control of this contract shall result in suspension of work as provided in subarticle 108-7(2) of the Standard Specifications.

SPECIFICATIONS FOR EROSION CONTROL

The Contractor shall seed all disturbed areas as directed by the Engineer, in accordance with Section 1660 of the Standard Specifications. Seeding and mulching shall immediately follow shoulder construction operations and in no case shall shoulder construction operations exceed seeding and mulching operations by more than two weeks without written permission of the Engineer. Failure to meet this requirement shall be cause to cease all operations until it can be met.

Seeding and Mulching: (East)

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be as stated below. During periods of overlapping dates, the kind of seed to be used shall be determined by the Engineer. All rates are in pounds per acre.

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be as stated below. During periods of overlapping dates, the kind of seed to be used shall be determined. All rates are in pounds per acre.

All Roadway Areas

March 1 - August 31

50#	Tall Fescue
10#	Centipede
25#	Bermudagrass (hulled)
500#	Fertilizer
4000#	Limestone

September 1 - February 28

50#	Tall Fescue
10#	Centipede
35#	Bermudagrass (unhulled)
500#	Fertilizer
4000#	Limestone

Waste and Borrow Locations

March 1 - August 31

75#	Tall Fescue
25#	Bermudagrass (hulled)
500#	Fertilizer
4000#	Limestone

September 1 - February 28

75#	Tall Fescue
35#	Bermudagrass (unhulled)
500#	Fertilizer
4000#	Limestone

Note: 50# of Bahiagrass may be substituted for either Centipede or Bermudagrass only upon Engineer's request.

Approved Tall Fescue Cultivars

2 nd Millennium	Duster	Magellan	Rendition
Avenger	Endeavor	Masterpiece	Scorpion
Barlexas	Escalade	Matador	Shelby
Barlexas II	Falcon II, III, IV & V	Matador GT	Signia
Barrera	Fidelity	Millennium	Silverstar
Barrington	Finesse II	Montauk	Southern Choice II
Biltmore	Firebird	Mustang 3	Stetson
Bingo	Focus	Olympic Gold	Tarheel
Bravo	Grande II	Padre	Titan Ltd
Cayenne	Greenkeeper	Paraiso	Titanium
Chapel Hill	Greystone	Picasso	Tomahawk
Chesapeake	Inferno	Piedmont	Tacer
Constitution	Justice	Pure Gold	Trooper
Chipper	Jaguar 3	Prospect	Turbo
Coronado	Kalahari	Quest	Ultimate
Coyote	Kentucky 31	Rebel Exeda	Watchdog
Davinci	Kitty Hawk	Rebel Sentry	Wolfpack
Dynasty	Kitty Hawk 2000	Regiment II	
Dominion	Lexington	Rembrandt	

On cut and fill slopes 2:1 or steeper Centipede shall be applied at the rate of 5 pounds per acre and add 20# of Sericea Lespedeza from January 1 - December 31.

Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

All areas seeded and mulched shall be tacked with asphalt. Crimping of straw in lieu of asphalt tack shall not be allowed on this project.

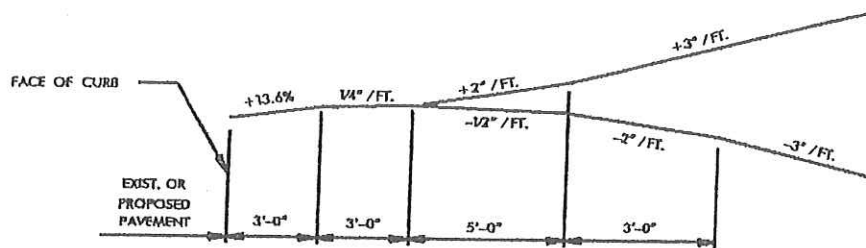
CRIMPING STRAW MULCH

Crimping shall be required on this project adjacent to any section of roadway where traffic is to be maintained or allowed during construction. In areas within six feet of the edge of pavement, straw is to be applied and then crimped. After the crimping operation is complete, an additional application of straw shall be applied and immediately tacked with a sufficient amount of undiluted emulsified asphalt.

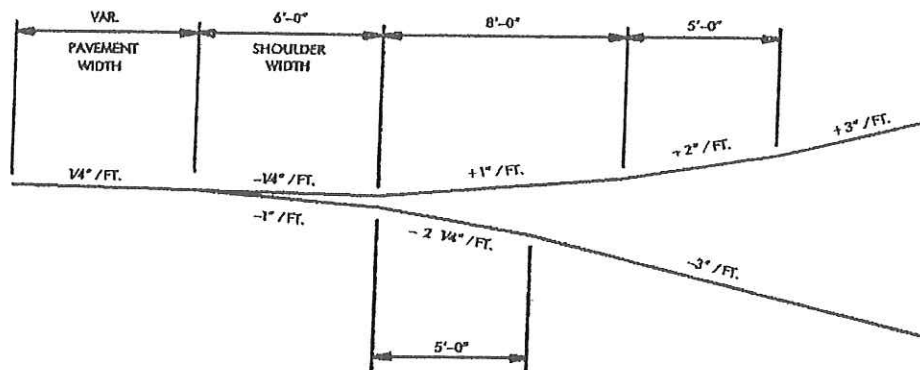
Straw mulch shall be of sufficient length and quality to withstand the crimping operation.

Crimping equipment including power source shall be subject to the approval of the Engineer providing that maximum spacing of crimper blades shall not exceed 8".

Within seven (7) calendar days to fourteen (14) calendar days of completion of any phase of grading, all disturbed areas shall be planted or otherwise provided with temporary or permanent ground cover, devices, or structures sufficient to restrain erosion. The Erosion and Sediment Control plan will identify the areas that require seven (7) and/or fourteen (14) calendar day ground stabilization. The Contractor is herein advised to follow all current regulations set forth by the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Water Quality (DWQ) as defined in the *General Stormwater Permit for Construction Activities NCG-010000*.



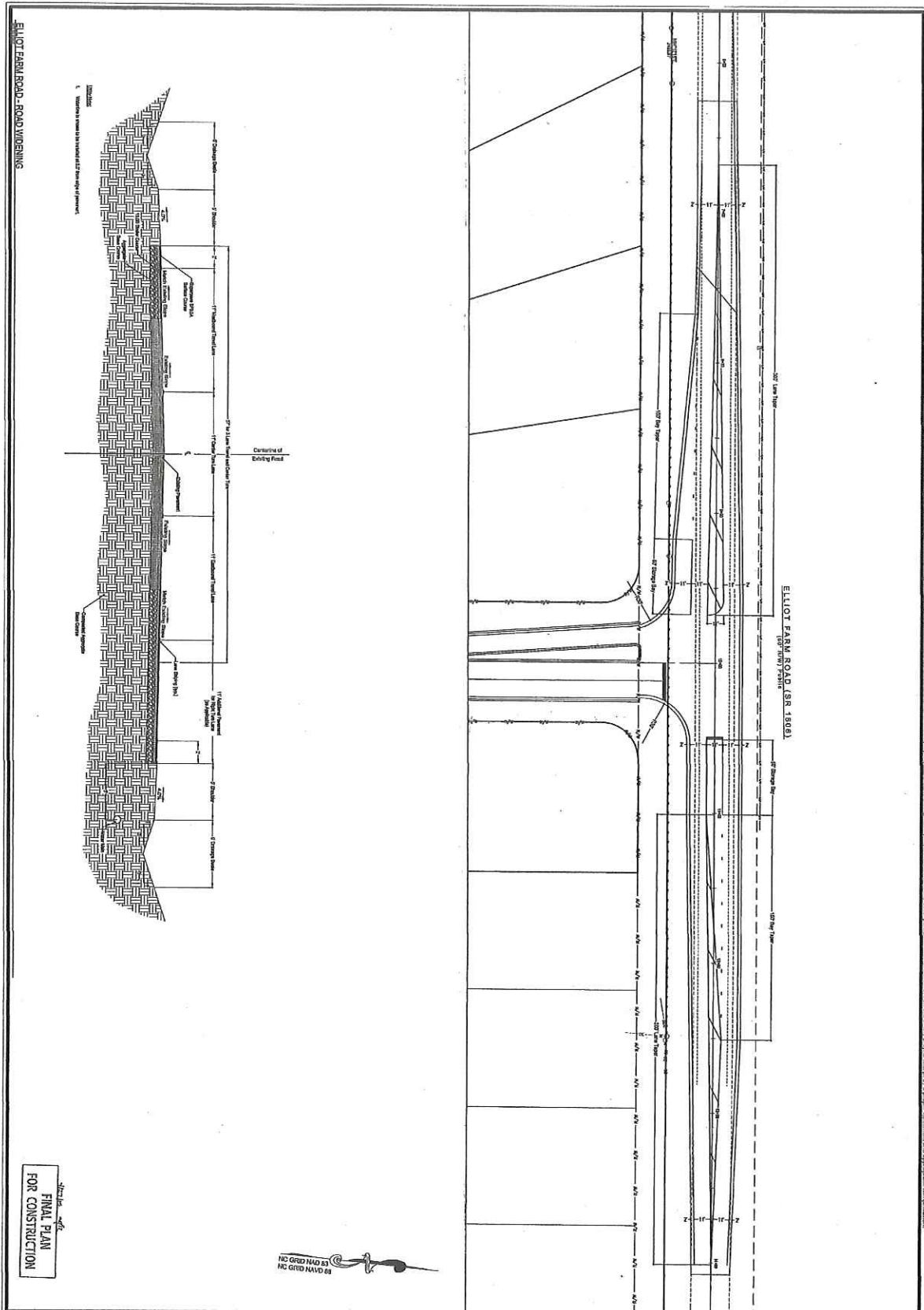
A. CURB & GUTTER SECTION



B. SHOULDER SECTION

FIGURE 6

DRIVEWAY TURNOUT GRADES



ELLIOT FARM ROAD - ROAD WIDENING PLAN

John Broadwell
ELLIOT FARM DEVELOPMENT
Cumberland County, North Carolina

Crawford
designcompany

3800 W. Highway 101, Suite 101, NC 28040
Crawford Design Company, Inc.
www.crawforddesign.com

PHASE 1

PRELIMINARY
NOT FOR FINAL CONSTRUCTION

DATE: 10/1/14

BY: [Signature]

NO GRID NAD 83
NO GRID 8300 200

C3.1