STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION 11

PROPOSAL

DATE AND TIME OF BID OPENING: DECEMBER 17, 2026 AT 2:00 PM

CONTRACT ID: DK00513

WBS ELEMENT NO.: 11C.095115

FEDERAL AID NO.: STATE FUNDED

COUNTY: WATAUGA COUNTY

MILES: 1.0

ROUTE NO.: SR 1132 (UPPER CRAB ORCHARD)

LOCATION: SR 1132 (UPPER CRAB ORCHARD) FROM SR 1122 (ROMINGER ROAD) 1.0 MILE TO DEAD END

TYPE OF WORK: GRADING, DRAINAGE, BASE, AND PAVING

NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS $40,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

THIS IS A ROADWAY PROJECT. **BID BOND IS REQUIRED.**

NAME OF BIDDER

ADDRESS OF BIDDER

PROPOSAL FOR THE CONSTRUCTION OF

CONTRACT No. DK00513 IN WATAUGA COUNTY, NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION,

RALEIGH, NORTH CAROLINA

The Bidder has carefully examined the location of the proposed work to be known as Contract No. **DK00513**; has carefully examined the plans and specifications, which are acknowledged to be part of the proposal, the special provisions, the proposal, the form of contract, and the forms of contract payment bond and contract performance bond; and thoroughly understands the stipulations, requirements and provisions. The undersigned bidder agrees to bound upon his execution of the bid and subsequent award to him by the Department of Transportation in accordance with this proposal to provide the necessary contract payment bond and contract performance bond within fourteen days after the written notice of award is received by him. The undersigned Bidder further agrees to provide all necessary machinery, tools, labor, and other means of construction; and to do all the work and to furnish all materials, except as otherwise noted, necessary to perform and complete the said contract in accordance with the *2024 Standard Specifications for Roads and Structures* by the dates(s) specified in the Project Special Provisions and in accordance with the requirements of the Engineer, and at the unit or lump sum prices, as the case may be, for the various items given on the sheets contained herein.

The Bidder shall provide and furnish all the materials, machinery, implements, appliances and tools, and perform the work and required labor to construct and complete Contract No. **DK00513** in **Watauga County**, for the unit or lump sum prices, as the case may be, bid by the Bidder in his bid and according to the proposal, plans, and specifications prepared by said Department, which proposal, plans, and specifications show the details covering this project, and hereby become a part of this contract.

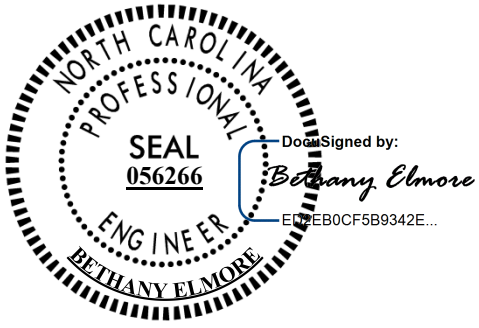
The published volume entitled *North Carolina Department of Transportation, Raleigh, Standard Specifications for Roads and Structures, January 2024* with all amendments and supplements thereto, is by reference incorporated into and made a part of this contract; that, except as herein modified, all the construction and work included in this contract is to be done in accordance with the specifications contained in said volume, and amendments and supplements thereto, under the direction of the Engineer.

If the proposal is accepted and the award is made, the contract is valid only when signed either by the Contract Officer or such other person as may be designated by the Secretary to sign for the Department of Transportation. The conditions and provisions herein cannot be changed except over the signature of the said Contract Officer or Division Engineer.

The quantities shown in the itemized proposal for the project are considered to be approximate only and are given as the basis for comparison of bids. The Department of Transportation may increase or decrease the quantity of any item or portion of the work as may be deemed necessary or expedient.

An increase or decrease in the quantity of an item will not be regarded as sufficient ground for an increase or decrease in the unit prices, nor in the time allowed for the completion of the work, except as provided for the contract.

Accompanying this bid is a bid bond secured by a corporate surety, or certified check payable to the order of the Department of Transportation, for five percent of the total bid price, which deposit is to be forfeited as liquidated damages in case this bid is accepted and the Bidder shall fail to provide the required payment and performance bonds with the Department of Transportation, under the condition of this proposal, within 14 calendar days after the written notice of award is received by him, as provided in the *Standard Specifications*; otherwise said deposit will be returned to the Bidder.



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INSTRUCTIONS TO BIDDERS

PLEASE READ ALL INSTRUCTIONS CAREFULLY
BEFORE PREPARING AND SUBMITTING YOUR BID.

All bids shall be prepared and submitted in accordance with the following requirements. Failure to comply with any requirement may cause the bid to be considered irregular and may be grounds for rejection of the bid.

For preparing and submitting the bid electronically, refer to Subarticle 102-8(B) of the *Standard Specifications.*

Bidders that bid electronically on Raleigh Central-Let projects will need a separate request to bid from the approved electronic bidding website for Division Contracts.

ELECTRONIC ON-LINE BID:

1. Plans and the proposal can be found on the Connect NCDOT website.
2. In accordance with Subarticle 102-8(B)(1) of the *Standard Specifications*, obtain an account and valid Digital Signature to bid with Bid Express (bidx.com)
3. In accordance with Subarticle 102-8(B)(3) of the *Standard Specifications*, if bid bond is required and bid deposit is not chosen register bond with Surety2000 or Tinubu and submit with the online bid.
4. In accordance with Article 102-3 of the *Standard Specifications*, registration on the Interested Parties List is required unless SP1 G02 Interested Parties List Not Required provision is included in the proposal.
5. Prepare and submit a bid electronically using the approved electronic bidding provider website.
6. Electronic bidding website necessary for electronic bidding can be found on the Bid Express website following the directions at: https://connect.ncdot.gov/letting/Pages/Electronic-Bidding.aspx.
7. Questions should be emailed 7 calendar days prior to the bid opening to **Bethany Elmore** at **belmore@ncdot.gov**. Contact with any other NCDOT personnel concerning this project is strictly prohibited, unless otherwise noted, and may result in bids being considered non-responsive.

PROJECT SPECIAL PROVISIONS

GENERAL

BOND REQUIREMENTS:

(6-1-16)(Rev.1-16-24) 102-8, 102-10 SPD 01-420A

A Bid Bond is required in accordance with Article 102-10 of the *Standard Specifications for Roads and Structures.*

Contract Payment and Performance Bonds are required in accordance with Article 103-7 of the *Standard Specifications*.

HAUL ROADS:

(7-16-24) 105 SP1 G04

Revise the *Standard Specifications* as follows:

Page 1-45, Article 105-15 RESTRICTION OF LOAD LIMITS, line 31, add the following after second sentence of the second paragraph:

At least 30 days prior to use, the Contractor shall notify the Engineer of any public road proposed for use as a haul road for the project.

CONTRACT TIME AND LIQUIDATED DAMAGES:

(8-15-00) (Rev. 5-16-23) 108 SP1 G08 A

The date of availability for this contract is **February 15, 2027**, except that work in jurisdictional waters and wetlands shall not begin until a meeting between the DOT, Regulatory Agencies, and the Contractor is held as stipulated in the permits contained elsewhere in this proposal. This delay in availability has been considered in determining the contract time for this project.

The completion date for this contract is **May 1, 2029**.

Except where otherwise provided by the contract, observation periods required by the contract will not be a part of the work to be completed by the completion date and/or intermediate contract times stated in the contract. The acceptable completion of the observation periods that extend beyond the final completion date shall be a part of the work covered by the performance and payment bonds.

The liquidated damages for this contract are **Two Hundred Dollars ($ 200.00)** per calendar day. These liquidated damages will not be cumulative with any liquidated damages which may become chargeable under Intermediate Contract Time Number 1.

INTERMEDIATE CONTRACT TIME NUMBER 01 AND LIQUIDATED DAMAGES:
(7-1-95) (Rev. 2-21-12) 108 SP1 G13 A

Except for that work required under the Project Special Provisions entitled *Planting, Reforestation* and/or *Permanent Vegetation Establishment*, included elsewhere in this proposal, the Contractor will be required to complete all work included in this contract and shall place and maintain traffic on same.

The date of availability for this intermediate contract time is **February 15, 2027**.

The completion date for this intermediate contract time is **November 2, 2028**.

The liquidated damages for this intermediate contract time are **One Thousand Six Hundred Dollars ($ 1,600.00)** per calendar day.

Upon apparent completion of all the work required to be completed by this intermediate date, a final inspection will be held in accordance with Article 105-17 and upon acceptance, the Department will assume responsibility for the maintenance of all work except *Planting, Reforestation* and/or *Permanent Vegetation Establishment*. The Contractor will be responsible for and shall make corrections of all damages to the completed roadway caused by his planting operations, whether occurring prior to or after placing traffic through the project.

INTERMEDIATE CONTRACT TIME NUMBER 02 AND LIQUIDATED DAMAGES:
(2-20-07) 108 SP1 G14 B

The Contractor shall not narrow or close a lane of traffic on **ANY ROAD**, detain and /or alter the traffic flow on or during holiday weekends, special events, or any other time when traffic is unusually heavy, including the following schedules:

HOLIDAY AND HOLIDAY WEEKEND LANE CLOSURE RESTRICTIONS

1. For **unexpected occurrence** that creates unusually high traffic volumes, as directed by the Engineer.

2. For **New Year's Day**, between the hours of **5:00 PM** December 31st and **8:00 AM** January 2nd. If New Year's Day is on a Friday, Saturday, Sunday or Monday, then until **8:00 AM** the following Tuesday.

3. For **Easter**, between the hours of **5:00 PM** Thursday and **8:00 AM** Monday.

4. For **Memorial Day**, between the hours of **5:00 PM** Friday and **8:00 AM** Tuesday.

5. For **Independence Day**, between the hours of **5:00 PM** the day before Independence Day and **8:00 AM** the day after Independence Day.

   If **Independence Day** is on a Friday, Saturday, Sunday or Monday, then between the hours of **5:00 PM** the Thursday before Independence Day and **8:00 AM** the Tuesday after Independence Day.

6. For **Labor Day**, between the hours of **5:00 PM** Friday and **8:00 AM** Tuesday.

7. For **Thanksgiving Day**, between the hours of **5:00 PM** Tuesday and **8:00 AM** Monday.

8. For **Christmas**, between the hours of **5:00 PM** the Friday before the week of Christmas Day and **8:00 AM** the following Tuesday after the week of Christmas Day.

Holidays and holiday weekends shall include New Year's, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. The Contractor shall schedule his work so that lane closures are not required during these periods, unless otherwise directed by the Engineer.

The time of availability for this intermediate contract work shall be the time the Contractor begins to install all traffic control devices for lane closures according to the time restrictions listed herein.

The completion time for this intermediate contract work shall be the time the Contractor is required to complete the removal of all traffic control devices for lane closures according to the time restrictions stated herein and place traffic in the existing traffic pattern.

The liquidated damages are **Five Hundred Dollars ($ 500.00**) per hour.

PERMANENT VEGETATION ESTABLISHMENT:

(2-16-12)(Rev. 1-16-24) 104 SP1 G16

Establish a permanent stand of the vegetation mixture shown in the contract. During the period between initial vegetation planting and final project acceptance, perform all work necessary to establish permanent vegetation on all erodible areas within the project limits, as well as, in borrow and waste pits. This work shall include erosion control device maintenance and installation, repair seeding and mulching, supplemental seeding and mulching, mowing, and fertilizer topdressing, as directed. All work shall be performed in accordance with the applicable section of the *Standard Specifications*. All work required for initial vegetation planting shall be performed as a part of the work necessary for the completion and acceptance of the Intermediate Contract Time (ICT). Between the time of ICT and Final Project acceptance, or otherwise referred to as the vegetation establishment period, the Department will be responsible for preparing the required National Pollutant Discharge Elimination System (NPDES) inspection records.

Once the Engineer has determined that the permanent vegetation establishment requirement has been achieved at an 80% vegetation density (the amount of established vegetation per given area to stabilize the soil) and no erodible areas exist within the project limits, the Contractor will be notified to remove the remaining erosion control devices that are no longer needed. The Contractor will be responsible for, and shall correct any areas disturbed by operations performed in permanent vegetation establishment and the removal of temporary erosion control measures, whether occurring prior to or after placing traffic on the project.

Payment for *Response for Erosion Control*, *Seeding and Mulching, Repair Seeding*, *Supplemental Seeding, Mowing, Fertilizer Topdressing, Silt Excavation,* and *Stone for Erosion Control* will be made at contract unit prices for the affected items. Work required that is not represented by

contract line items will be paid in accordance with Articles 104-7 or 104-3 of the *Standard Specifications*. No additional compensation will be made for maintenance and removal of temporary erosion control items.

MAJOR CONTRACT ITEMS:

(2-19-02)(Rev. 1-16-24) 104 SP1 G28

The following listed items are the major contract items for this contract (see Article 104-5 of the *Standard Specifications*):

Line #	Description
0017	AGGREGATE BASE COURSE
0018	INCIDENTAL STONE BASE
0019	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C

SPECIALTY ITEMS:

(7-1-95)(Rev. 1-16-24) 108-6 SP1 G37

Items listed below will be the specialty items for this contract (see Article 108-6 of the *Standard Specifications*).

Line #	Description
32-37	Guardrail
44-66	Erosion Control

FUEL PRICE ADJUSTMENT:

(11-15-05)(Rev. 1-16-24) 109-8 SP1 G43

Page 1-82, Article 109-8, FUEL PRICE ADJUSTMENTS, add the following:

The base index price for DIESEL #2 FUEL is **$ 5.1018** per gallon. Where any of the following are included as pay items in the contract, they will be eligible for fuel price adjustment.

The pay items and the fuel factor used in calculating adjustments to be made will be as follows:

Description	**Units**	**Fuel Usage Factor Diesel**
Unclassified Excavation	Gal/CY	0.29
Borrow Excavation	Gal/CY	0.29
Class IV Subgrade Stabilization	Gal/Ton	0.55
Aggregate Base Course	Gal/Ton	0.55
Sub-Ballast	Gal/Ton	0.55
Erosion Control Stone	Gal/Ton	0.55
Rip Rap, Class _____	Gal/Ton	0.55
Asphalt Concrete Base Course, Type ____	Gal/Ton	0.90 or 2.90
Asphalt Concrete Intermediate Course, Type ____	Gal/Ton	0.90 or 2.90
Asphalt Concrete Surface Course, Type ____	Gal/Ton	0.90 or 2.90
Open-Graded Asphalt Friction Course	Gal/Ton	0.90 or 2.90
Permeable Asphalt Drainage Course, Type ____	Gal/Ton	0.90 or 2.90
Sand Asphalt Surface Course, Type ____	Gal/Ton	0.90 or 2.90
Ultra-thin Bonded Wearing Course	Gal/Ton	0.90 or 2.90
Aggregate for Cement Treated Base Course	Gal/Ton	0.55
Portland Cement for Cement Treated Base Course	Gal/Ton	0.55
> 11" Portland Cement Concrete Pavement	Gal/SY	0.327
Concrete Shoulders Adjacent to > 11” Pavement	Gal/SY	0.327
9” to 11" Portland Cement Concrete Pavement	Gal/SY	0.272
Concrete Shoulders Adjacent to 9” to 11” Pavement	Gal/SY	0.272
< 9” Portland Cement Concrete Pavement	Gal/SY	0.245
Concrete Shoulders Adjacent to < 9” Pavement	Gal/SY	0.245

For the asphalt items noted in the chart as eligible for fuel adjustments, the bidder may include the *Fuel Usage Factor Adjustment Form* with their bid submission if they elect to use the fuel usage factor. The *Fuel Usage Factor Adjustment Form* is found at the following link:

https://connect.ncdot.gov/letting/LetCentral/Fuel%20Usage%20Factor%20Adjustment%20Form%20-%20%20Starting%20Nov%202022%20Lettings.pdf

Select either 2.90 Gal/Ton fuel factor or 0.90 Gal/Ton fuel factor for each asphalt line item on the *Fuel Usage Factor Adjustment Form*. The selected fuel factor for each asphalt item will remain in effect for the duration of the contract.

Failure to complete the *Fuel Usage Factor Adjustment Form* will result in using 2.90 gallons per ton as the Fuel Usage Factor for Diesel for the asphalt items noted above. The contractor will not be permitted to change the Fuel Usage Factor after the bids are submitted.

SCHEDULE OF ESTIMATED COMPLETION PROGRESS:

(7-15-08)(Rev. 6-16-26) 108-2 SP1 G58

The Contractor's attention is directed to the Standard Special Provision entitled *Availability of Funds Termination of Contracts* included elsewhere in this proposal. The Department of Transportation's schedule of estimated completion progress for this project as required by that Standard Special Provision is as follows:

Fiscal Year	Progress (% of Dollar Value)
2027 (7/01/26 - 6/30/27)	**15**% of Total Amount Bid
2028 (7/01/27 - 6/30/28)	**50**% of Total Amount Bid
2029 (7/01/28 - 6/30/29)	**35**% of Total Amount Bid

The Contractor shall also furnish his own progress schedule in accordance with Article 108-2 of the *Standard Specifications*. Any acceleration of the progress as shown by the Contractor's progress schedule over the progress as shown above shall be subject to the approval of the Engineer.

MINORITY BUSINESS ENTERPRISE AND WOMEN BUSINESS ENTERPRISE (DIVISIONS):

(10-16-07)(Rev. 10-21-25) 102-15(J) SP1 G67

Description

The purpose of this Special Provision is to carry out the North Carolina Department of Transportation's policy of ensuring nondiscrimination in the award and administration of contracts financed in whole or in part with State funds.

Definitions

Additional MBE/WBE Subcontractors - Any MBE/WBE submitted at the time of bid that will not be used to meet the Combined MBE/WBE goal. No submittal of a Letter of Intent is required.

Combined MBE/WBE Goal: A portion of the total contract, expressed as a percentage that is to be performed by committed MBE/WBE subcontractors.

Committed MBE/WBE Subcontractor - Any MBE/WBE submitted at the time of bid that is being used to meet the Combined MBE / WBE goal by submission of a Letter of Intent. Or any MBE or WBE used as a replacement for a previously committed MBE or WBE firm.

Contract Goal Requirement - The approved participation at time of award, but not greater than the advertised Combined MBE/WBE contract goal.

Goal Confirmation Letter - Written documentation from the Department to the bidder confirming the Contractor's approved, committed participation along with a listing of the committed MBE and WBE firms.

Manufacturer - A firm that owns (or leases) and operates or maintains a factory or establishment that produces on the premises, the materials or supplies obtained by the Contractor. A firm that makes minor modifications to the materials, supplies, articles, or equipment is not a manufacturer.

MBE Participation (Anticipated) - A portion of the total contract, expressed as a percentage that is anticipated to be performed by committed MBE subcontractor(s).

Minority Business Enterprise (MBE) - A firm certified as a Disadvantaged Minority-Owned Business Enterprise through the North Carolina Unified Certification Program.

Regular Dealer - A firm that owns (or leases), and operates a store, warehouse, or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in sufficient quantities, and regularly sold to the public in the usual course of business. A regular dealer engages in, as its principal business and in its own name, the purchase and sale or lease of the products in question. A regular dealer in such bulk items as steel, concrete or concrete products, gravel, stone, asphalt and petroleum products need not keep such products in stock, if it owns and operates distribution equipment for the products. Any supplement of regular dealers' own distribution equipment shall be by a long-term operating lease and not on an ad hoc or contract-by-contract basis.

Distributor – A firm that engages in the regular sale or lease of the items specified by the contract. A distributor assumes responsibility for the items it purchases once they leave the point of origin (e.g., a manufacturer's facility), making it liable for any loss or damage not covered by the carrier's insurance.

Replacement / Substitution – A full or partial reduction in the amount of work subcontracted to a committed (or an approved substitute) MBE/WBE firm.

North Carolina Unified Certification Program (NCUCP) - A program that provides comprehensive services and information to applicants for MBE/WBE certification. The MBE/WBE program follows the same regulations as the federal Disadvantaged Business Enterprise (DBE) program in accordance with 49 CFR Part 26.

United States Department of Transportation (USDOT) - Federal agency responsible for issuing regulations (49 CFR Part 26) and official guidance for the DBE program.

WBE Participation (Anticipated) - A portion of the total contract, expressed as a percentage that is anticipated to be performed by committed WBE subcontractor(s).

Women Business Enterprise (WBE) - A firm certified as a Disadvantaged Women-Owned Business Enterprise through the North Carolina Unified Certification Program.

Forms and Websites Referenced in this Provision

Payment Tracking System - On-line system in which the Contractor enters the payments made to MBE and WBE subcontractors who have performed work on the project. https://apps.dot.state.nc.us/Vendor/PaymentTracking/

DBE-IS *Subcontractor Payment Information* - Form for reporting the payments made to all MBE/WBE firms working on the project. This form is for paper bid projects only. https://connect.ncdot.gov/business/Turnpike/Documents/Form%20DBE-IS%20Subcontractor%20Payment%20Information.pdf

RF-1 *MBE/WBE Replacement Request Form* - Form for replacing a committed MBE or WBE. https://connect.ncdot.gov/projects/construction/Construction%20Forms/DBE%20MBE%20WBE%20Replacement%20Form%20and%20Instructions.pdf

SAF *Subcontract Approval Form* - Form required for approval to sublet the contract. https://connect.ncdot.gov/projects/construction/Construction%20Forms/SAF%20Form%20-%20Subcontract%20Approval%20Form%20Revised%2004-19.xlsm

JC-1 *Joint Check Notification Form* - Form and procedures for joint check notification. The form acts as a written joint check agreement among the parties providing full and prompt disclosure of the expected use of joint checks. http://connect.ncdot.gov/projects/construction/Construction%20Forms/Joint%20Check%20Notification%20Form.pdf

Letter of Intent - Form signed by the Contractor and the MBE/WBE subcontractor, manufacturer or regular dealer that affirms that a portion of said contract is going to be performed by the signed MBE/WBE for the estimated amount (based on quantities and unit prices) listed at the time of bid. http://connect.ncdot.gov/letting/LetCentral/Letter%20of%20Intent%20to%20Perform%20as%20a%20Subcontractor.pdf

Listing of MBE and WBE Subcontractors Form - Form for entering MBE/WBE subcontractors on a project that will meet the Combined MBE/WBE goal. This form is for paper bids only. http://connect.ncdot.gov/municipalities/Bid%20Proposals%20for%20LGA%20Content/09%20MBE-WBE%20Subcontractors%20(State).docx

Subcontractor Quote Comparison Sheet - Spreadsheet for showing all subcontractor quotes in the work areas where MBEs and WBEs quoted on the project. This sheet is submitted with good faith effort packages. http://connect.ncdot.gov/business/SmallBusiness/Documents/DBE%20Subcontractor%20Quote%20Comparison%20Example.xls

DBE Regular Dealer/Distributor Affirmation Form – Form is used to make a preliminary counting determination for each DBE listed as a regular dealer or distributor to assess its eligibility for 60 or 40 percent credit, respectively of the cost of materials or supplies based on its demonstrated capacity and intent to perform as a regular dealer or distributor, as defined in section 49 CFR 26.55 under the contract at issue. A Contractor will submit the completed form with the Letter of Intent. https://connect.ncdot.gov/projects/construction/Construction%20Forms/DBE%20Regular%20Dealer-Distributor%20Affirmation%20Form%20-%20USDOT%202024.pdf

Combined MBE/WBE Goal

There is NO MBE/WBE Goal for this project.

Directory of Transportation Firms (Directory)

Real-time information is available about firms doing business with the Department and firms that are certified through NCUCP in the Directory of Transportation Firms. Only firms identified in the Directory as MBE and WBE certified shall be used to meet the Combined MBE / WBE goal. The Directory can be found at the following link.

https://www.ebs.nc.gov/VendorDirectory/default.html

The listing of an individual firm in the directory shall not be construed as an endorsement of the firm's capability to perform certain work.

Listing of MBE/WBE Subcontractors

At the time of bid, bidders shall submit all MBE and WBE participation that they anticipate to use during the life of the contract. Only those identified to meet the Combined MBE/WBE goal will be considered committed, even though the listing shall include both committed MBE/WBE subcontractors and additional MBE/WBE subcontractors. Any additional MBE/WBE subcontractor participation above the goal will follow the banking guidelines found elsewhere in this provision. All other additional MBE/WBE subcontractor participation submitted at the time of bid will be used toward the Department's overall race-neutral goals. Only those firms with current MBE and WBE certification at the time of bid opening will be acceptable for listing in the bidder's submittal of MBE and WBE participation. The Contractor shall indicate the following required information:

(A) Electronic Bids

Bidders shall submit a listing of MBE and WBE participation in the appropriate section of the electronic submittal file.

(1) Submit the names and addresses of MBE and WBE firms identified to participate in the contract. If the bidder uses the updated listing of MBE and WBE firms shown in the electronic submittal file, the bidder may use the dropdown menu to access the name and address of the firms.

(2) Submit the contract line numbers of work to be performed by each MBE and WBE firm. When no figures or firms are entered, the bidder will be considered to have no MBE or WBE participation.

(3) The bidder shall be responsible for ensuring that the MBE and WBE are certified at the time of bid by checking the Directory of Transportation Firms. If the firm is not certified at the time of the bid-letting, that MBE's or WBE's participation will not count towards achieving the Combined MBE/WBE goal.

(B) Paper Bids

(1) *If the Combined MBE/ WBE goal is more than zero,*

(a) Bidders, at the time the bid proposal is submitted, shall submit a listing of MBE/WBE participation, including the names and addresses on *Listing of MBE and WBE Subcontractors* contained elsewhere in the contract documents in order for the bid to be considered responsive. Bidders shall indicate the total dollar value of the MBE and WBE participation for the contract.

(b) If bidders have no MBE or WBE participation, they shall indicate this on the *Listing of MBE and WBE Subcontractors* by entering the word "None" or the number "0." This form shall be completed in its entirety. **Blank forms will not be deemed to represent zero participation.** Bids submitted that do not have MBE and WBE participation indicated on the appropriate form will not be read publicly during the opening of bids. The Department will not consider these bids for award and the proposal will be rejected.

(c) The bidder shall be responsible for ensuring that the MBE/WBE is certified at the time of bid by checking the Directory of Transportation Firms. If the firm is not certified at the time of the bid-letting, that MBE's or WBE's participation will not count towards achieving the Combined MBE/WBE goal.

(2) *If the Combined MBE/WBE Goal is zero,* entries on the *Listing of MBE and WBE Subcontractors* are not required for the zero goal, however any MBE or WBE participation that is achieved during the project shall be reported in accordance with requirements contained elsewhere in the special provision.

MBE or WBE Prime Contractor

When a certified MBE or WBE firm bids on a contract that contains a Combined MBE/WBE Goal, the firm is responsible for meeting the goal or making good faith efforts to meet the goal, just like any other bidder. In most cases, a MBE or WBE bidder on a contract will meet the Combined MBE/WBE goal by virtue of the work it performs on the contract with its own forces. However, all the work that is performed by the MBE or WBE bidder and any other similarly certified subcontractors will count toward the goal. The MBE or WBE bidder shall list itself along with any MBE or WBE subcontractors, if any, in order to receive credit toward the goals.

MBE/WBE prime contractors shall also follow Sections A or B listed under *Listing of MBE/WBE Subcontractors* just as a non-MBE/WBE bidder would.

Written Documentation – Letter of Intent

The bidder shall submit written documentation for each MBE/WBE that will be used to meet the Combined MBE/WBE goal of the contract, indicating the bidder's commitment to use the MBE/WBE in the contract. This documentation shall be submitted on the Department's form titled *Letter of Intent*.

The documentation shall be received in the office of the Engineer no later than 2:00 p.m. of the fifth calendar day following opening of bids, unless the fifth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 10:00 a.m. on the next official state business day.

If the bidder fails to submit the Letter of Intent from each committed MBE and WBE to be used toward the Combined MBE/WBE goal, or if the form is incomplete (i.e. both signatures are not present), the MBE/WBE participation will not count toward meeting the Combined MBE/WBE goal. If the lack of this participation drops the commitment below the Combined MBE/WBE goal, the Contractor shall submit evidence of good faith efforts for the goal not met, completed in its entirety, to the Engineer no later than 2:00 p.m. of the eighth calendar day following opening of bids, unless the eighth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 10:00 a.m. on the next official state business day.

Banking MBE/WBE Credit

If the committed MBE/WBE participation submitted exceeds the algebraic sum of the Combined MBE/WBE goal by $1,000 or more, the excess will be placed on deposit by the Department for future use by the bidder. Separate accounts will be maintained for MBE and WBE participation and these may accumulate for a period not to exceed 24 months.

When the apparent lowest responsive bidder fails to submit sufficient participation by MBE and WBE firms to meet the advertised goal, as part of the good faith effort, the Department will consider allowing the bidder to withdraw funds to meet the Combined MBE/WBE goal as long as there are adequate funds available from the bidder's MBE and WBE bank accounts.

Submission of Good Faith Effort

If the bidder fails to meet or exceed the Combined MBE/WBE goal, the apparent lowest responsive bidder shall submit to the Department documentation of adequate good faith efforts made to reach that specific goal.

One complete set and **0** copies of this information shall be received in the office of the Engineer no later than 2:00 p.m. of the fifth calendar day following opening of bids, unless the fifth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 10:00 a.m. on the next official state business day.

Note: Where the information submitted includes repetitious solicitation letters, it will be acceptable to submit a representative letter along with a distribution list of the firms that were solicited. Documentation of MBE/WBE quotations shall be a part of the good faith effort

submittal. This documentation may include written subcontractor quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

Consideration of Good Faith Effort for Projects with a Combined MBE/WBE Goal More Than Zero

Adequate good faith efforts mean that the bidder took all necessary and reasonable steps to achieve the goal which, by their scope, intensity, and appropriateness, could reasonably be expected to obtain sufficient MBE/WBE participation. Adequate good faith efforts also mean that the bidder actively and aggressively sought MBE/WBE participation. Mere *pro forma* efforts are not considered good faith efforts.

The Department will consider the quality, quantity, and intensity of the different kinds of efforts a bidder has made. Listed below are examples of the types of actions a bidder will take in making a good faith effort to meet the goals and are not intended to be exclusive or exhaustive, nor is it intended to be a mandatory checklist.

(A) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising, written notices, use of verifiable electronic means through the use of the NCDOT Directory of Transportation Firms) the interest of all certified MBEs/WBEs that are also prequalified subcontractors. The bidder must solicit this interest within at least 10 days prior to bid opening to allow the MBEs/WBEs to respond to the solicitation. Solicitation shall provide the opportunity to MBEs/WBEs within the Division and surrounding Divisions where the project is located. The bidder must determine with certainty if the MBEs/WBEs are interested by taking appropriate steps to follow up initial solicitations.

(B) Selecting portions of the work to be performed by MBEs/WBEs in order to increase the likelihood that the Combined MBE/WBE goal will be achieved.

(1) Where appropriate, break out contract work items into economically feasible units to facilitate MBE/WBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.

(2) Negotiate with subcontractors to assume part of the responsibility to meet the advertised goal when the work to be sublet includes potential for MBE/WBE participation (2nd and 3rd tier subcontractors).

(C) Providing interested certified MBEs/WBEs that are also prequalified subcontractors with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

(D) (1) Negotiating in good faith with interested MBEs/WBEs. It is the bidder's responsibility to make a portion of the work available to MBE/WBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available MBE/WBE subcontractors and suppliers, so as to facilitate MBE/WBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of MBEs/WBEs that were considered;

a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for MBEs/WBEs to perform the work.

(2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including MBE/WBE subcontractors, and would take a firm's price and capabilities as well as the advertised goal into consideration. However, the fact that there may be some additional costs involved in finding and using MBEs/WBEs is not in itself sufficient reason for a bidder's failure to meet the advertised goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidding contractors are not, however, required to accept higher quotes from MBEs/WBEs if the price difference is excessive or unreasonable.

(E) Not rejecting MBEs/WBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associates and political or social affiliations (for example, union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.

(F) Making efforts to assist interested MBEs/WBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or bidder.

(G) Making efforts to assist interested MBEs/WBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

(H) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; Federal, State, and local minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of MBEs/WBEs. Contact within 7 days from the bid opening the Business Opportunity and Work Force Development Unit at BOWD@ncdot.gov to give notification of the bidder's inability to get MBE or WBE quotes.

(I) Any other evidence that the bidder submits which shows that the bidder has made reasonable good faith efforts to meet the advertised goal.

In addition, the Department may take into account the following:

(1) Whether the bidder's documentation reflects a clear and realistic plan for achieving the Combined MBE/WBE goal.

(2) The bidders' past performance in meeting the contract goal.

(3) The performance of other bidders in meeting the advertised goal. For example, when the apparent successful bidder fails to meet the goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts the

apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the advertised goal, but meets or exceeds the average MBE and WBE participation obtained by other bidders, the Department may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made a good faith effort.

If the Department does not award the contract to the apparent lowest responsive bidder, the Department reserves the right to award the contract to the next lowest responsive bidder that can satisfy to the Department that the Combined MBE/WBE goal can be met or that an adequate good faith effort has been made to meet the advertised goal.

Non-Good Faith Appeal

The Engineer will notify the Contractor verbally and in writing of non-good faith. A Contractor may appeal a determination of non-good faith made by the Goal Compliance Committee. If a Contractor wishes to appeal the determination made by the Committee, they shall provide written notification to the Engineer. The appeal shall be made within 2 business days of notification of the determination of non-good faith.

Counting MBE/WBE Participation Toward Meeting the Combined MBE/WBE Goal

(A) Participation

The total dollar value of the participation by a committed MBE/WBE will be counted toward the contract goal requirements. The total dollar value of participation by a committed MBE/WBE will be based upon the value of work performed by the MBE/WBE and the actual payments to MBE/WBE firms by the Contractor.

(B) Joint Checks

Prior notification of joint check use shall be required when counting MBE/WBE participation for services or purchases that involves the use of a joint check. Notification shall be through submission of Form JC-1 *(Joint Check Notification Form)* and the use of joint checks shall be in accordance with the Department's Joint Check Procedures.

(C) Subcontracts (Non-Trucking)

A MBE/WBE may enter into subcontracts. Work that a MBE subcontracts to another MBE firm may be counted toward the anticipated MBE participation. The same holds for work that a WBE subcontracts to another WBE firm. Work that a MBE/WBE subcontracts to a non-MBE/WBE firm does <u>not</u> count toward the contract goal requirement. It should be noted that every effort shall be made by MBE and WBE contractors to subcontract to the same certification (i.e., MBEs to MBEs and WBEs to WBEs), in order to fulfill the MBE or WBE participation breakdown. This, however, may not always be possible due to the limitation of firms in the area. If the MBE or WBE firm shows a good faith effort has been made to reach out to similarly certified firms and there is no interest or availability, and they can get assistance from other certified firms, the Engineer will not hold the prime

responsible for meeting the individual MBE or WBE breakdown. If a MBE or WBE contractor or subcontractor subcontracts a significantly greater portion of the work of the contract than would be expected on the basis of standard industry practices, it shall be presumed that the MBE or WBE is not performing a commercially useful function.

(D) Joint Venture

When a MBE or WBE performs as a participant in a joint venture, the Contractor may count toward its contract goal requirement a portion of the total value of participation with the MBE or WBE in the joint venture, that portion of the total dollar value being a distinct clearly defined portion of work that the MBE or WBE performs with its forces.

(E) Manufacturer, Regular Dealer, Distributor

A Contractor may count toward its MBE/WBE requirement 40 percent of its expenditures for materials or supplies (including transportation costs) from a MBE/WBE distributor, 60 percent of its expenditures for materials or supplies (including transportation costs) from a MBE/WBE regular dealer and 100 percent of such expenditures obtained from a MBE/WBE manufacturer.

A Contractor may count toward its MBE/WBE requirement the following expenditures to MBE/WBE firms that are not manufacturers, regular dealers or distributors:

(1) The fees or commissions charged by a MBE/WBE firm for providing a *bona fide* service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, provided the fees or commissions are determined to be reasonable and not excessive as compared with fees and commissions customarily allowed for similar services.

(2) With respect to materials or supplies purchased from a MBE/WBE, which is neither a manufacturer, regular dealer, nor a distributor count the entire amount of fees or commissions charged that the Department deems to be reasonable, including transportation charges for the delivery of materials or supplies. Do not count any portion of the cost of the materials and supplies themselves.

A Contractor will submit a completed *DBE Regular Dealer/Distributor Affirmation Form* with the Letter of Intent to the Engineer. The Engineer will forward to the State Contractor Utilization Engineer or DBE@ncdot.gov. The State Contractor Utilization Engineer will make a preliminary assessment as to whether a MBE/WBE supplier has the demonstrated capacity to perform a commercially useful function (CUF) on a contract-by-contract basis *prior* to its participation.

Commercially Useful Function

(A) MBE/WBE Utilization

The Contractor may count toward its contract goal requirement only expenditures to MBEs and WBEs that perform a commercially useful function in the work of a contract. A MBE/WBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by performing, managing, and supervising the work involved. To perform a commercially useful function, the MBE/WBE shall also be responsible with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material and installing (where applicable) and paying for the material itself. To determine whether a MBE/WBE is performing a commercially useful function, the Department will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is performing and the MBE/WBE credit claimed for its performance of the work, and any other relevant factors. If it is determined that a MBE or WBE is not performing a Commercially Useful Function, the contractor may present evidence to rebut this presumption to the Department.

(B) MBE/WBE Utilization in Trucking

The following factors will be used to determine if a MBE or WBE trucking firm is performing a commercially useful function:

(1) The MBE/WBE shall be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there shall not be a contrived arrangement for the purpose of meeting the Combined MBE/WBE goal.

(2) The MBE/WBE shall itself own and operate at least one fully licensed, insured, and operational truck used on the contract.

(3) The MBE/WBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs.

(4) The MBE may subcontract the work to another MBE firm, including an owner-operator who is certified as a MBE. The same holds true that a WBE may subcontract the work to another WBE firm, including an owner-operator who is certified as a WBE. When this occurs, the MBE or WBE who subcontracts work receives credit for the total value of the transportation services the subcontracted

MBE or WBE provides on the contract. It should be noted that every effort shall be made by MBE and WBE contractors to subcontract to the same certification (i.e., MBEs to MBEs and WBEs to WBEs), in order to fulfill the participation breakdown. This, however, may not always be possible due to the limitation of firms in the area. If the MBE or WBE firm shows a good faith effort has been made to reach out to similarly certified transportation service providers and there is no interest or availability, and they can get assistance from other certified providers, the Engineer will not hold the prime responsible for meeting the individual MBE or WBE participation breakdown.

(5) The MBE/WBE may also subcontract the work to a non-MBE/WBE firm, including from an owner-operator. The MBE/WBE who subcontracts the work to a non-MBE/WBE is entitled to credit for the total value of transportation services provided by the non-MBE/WBE subcontractor not to exceed the value of transportation services provided by MBE/WBE-owned trucks on the contract. Additional participation by non-MBE/WBE subcontractors receives credit only for the fee or commission it receives as a result of the subcontract arrangement. The value of services performed under subcontract agreements between the MBE/WBE and the Contractor will not count towards the MBE/WBE contract requirement.

(6) A MBE/WBE may lease truck(s) from an established equipment leasing business open to the general public. The lease must indicate that the MBE/WBE has exclusive use of and control over the truck. This requirement does not preclude the leased truck from working for others during the term of the lease with the consent of the MBE/WBE, so long as the lease gives the MBE/WBE absolute priority for use of the leased truck. This type of lease may count toward the MBE/WBE's credit as long as the driver is under the MBE/WBE's payroll.

(7) Subcontracted/leased trucks shall display clearly on the dashboard the name of the MBE/WBE that they are subcontracted/leased to and their own company name if it is not identified on the truck itself. Magnetic door signs are not permitted.

MBE/WBE Replacement

When a Contractor has relied on a commitment to a MBE or WBE subcontractor (or an approved substitute MBE or WBE subcontractor) to meet all or part of a contract goal requirement, the contractor shall not terminate the MBE/WBE subcontractor or any portion of its work for convenience. This includes, but is not limited to, instances in which the Contractor seeks to perform the work of the terminated subcontractor with another MBE/WBE subcontractor, a non-MBE/WBE subcontractor, or with the Contractor's own forces or those of an affiliate.

The Contractor must give notice in writing both by certified mail and email to the MBE/WBE subcontractor, with a copy to the Engineer of its intent to request to terminate a MBE/WBE subcontractor or any portion of its work, and the reason for the request. The Contractor must give the MBE/WBE subcontractor five (5) business days to respond to the Contractor's Notice of Intent to Request Termination and/or Substitution. If the MBE/WBE subcontractor objects to the intended termination/substitution, the MBE/WBE, within five (5) business days must advise the Contractor and the Department of the reasons why the action should not be approved. The five-

day notice period shall begin on the next business day after written notice is provided to the MBE/WBE subcontractor.

A committed MBE/WBE subcontractor may only be terminated or any portion of its work after receiving the Department's written approval based upon a finding of good cause for the proposed termination and/or substitution. Good cause does not exist if the Contractor seeks to terminate a MBE/WBE or any portion of its work that it relied upon to obtain the contract so that the Contractor can self-perform the work for which the MBE/WBE was engaged, or so that the Contractor can substitute another MBE/WBE or non- MBE/WBE contractor after contract award. For purposes of this section, good cause shall include the following circumstances:

(a) The listed MBE/WBE subcontractor fails or refuses to execute a written contract;
(b) The listed MBE/WBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the MBE/WBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
(c) The listed MBE/WBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;
(d) The listed MBE/WBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
(e) The listed MBE/WBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to 2 CFR parts 180, 215 and 1200 or applicable State law;
(f) The listed MBE/WBE subcontractor is not a responsible contractor;
(g) The listed MBE/WBE voluntarily withdraws from the project and provides written notice of withdrawal;
(h) The listed MBE/WBE is ineligible to receive MBE/WBE credit for the type of work required;
(i) A MBE/WBE owner dies or becomes disabled with the result that the listed MBE/WBE contractor is unable to complete its work on the contract; and
(j) Other documented good cause that compels the termination of the MBE/WBE subcontractor.

The Contractor shall comply with the following for replacement of a committed MBE/WBE:

(A) Performance Related Replacement

When a committed MBE/WBE is terminated for good cause as stated above, an additional MBE/WBE that was submitted at the time of bid may be used to fulfill the MBE/WBE commitment to meet the Combined MBE/WBE Goal. A good faith effort will only be required for removing a committed MBE/WBE if there were no additional MBE/WBEs submitted at the time of bid to cover the same amount of work as the MBE/WBE that was terminated.

If a replacement MBE/WBE is not found that can perform at least the same amount of work as the terminated MBE/WBE, the Contractor shall submit a good faith effort documenting the steps taken. Such documentation shall include, but not be limited to, the following:

(1) Copies of written notification to MBE/WBEs that their interest is solicited in contracting the work defaulted by the previous MBE/WBE or in subcontracting other items of work in the contract.

(2) Efforts to negotiate with MBE/WBEs for specific subbids including, at a minimum:

(a) The names, addresses, and telephone numbers of MBE/WBEs who were contacted.
(b) A description of the information provided to MBE/WBEs regarding the plans and specifications for portions of the work to be performed.

(3) A list of reasons why MBE/WBE quotes were not accepted.

(4) Efforts made to assist the MBE/WBEs contacted, if needed, in obtaining bonding or insurance required by the Contractor.

(B) Decertification Replacement

(1) When a committed MBE/WBE is decertified by the Department after the SAF (*Subcontract Approval Form*) has been received by the Department, the Department will not require the Contractor to solicit replacement MBE/WBE participation equal to the remaining work to be performed by the decertified firm. The participation equal to the remaining work performed by the decertified firm will count toward the contract goal requirement but not the overall goal.

(i) If the MBE/WBE's ineligibility is caused solely by its having exceeded the size standard during the performance of the contract. The Department may continue to count participation equal to the remaining work performed by the decertified firm which will count toward the contract goal requirement and overall goal.

(ii) If the MBE/WBE's ineligibility is caused solely by its acquisition by or merger with a non- MBE/WBE during the performance of the contract. The Department may not continue to count the portion of the decertified firm's performance on the contract remaining toward either the contract goal or the overall goal, even if the Contractor has executed a subcontract with the firm or the Department has executed a prime contract with the MBE/WBE that was later decertified.

(2) When a committed MBE/WBE is decertified prior to the Department receiving the SAF (*Subcontract Approval Form*) for the named MBE/WBE firm, the Contractor shall take all necessary and reasonable steps to replace the MBE/WBE subcontractor with another MBE/WBE subcontractor to perform at least the same

amount of work to meet the Combined MBE/WBE goal requirement. If a MBE/WBE firm is not found to do the same amount of work, a good faith effort must be submitted to NCDOT (see A herein for required documentation).

All requests for replacement of a committed MBE/WBE firm shall be submitted to the Engineer for approval on Form RF-1 *(DBE Replacement Request).* If the Contractor fails to follow this procedure, the Contractor may be disqualified from further bidding for a period of up to 6 months.

Changes in the Work

When the Engineer makes changes that result in the reduction or elimination of work to be performed by a committed MBE/WBE, the Contractor will not be required to seek additional participation. When the Engineer makes changes that result in additional work to be performed by a MBE/WBE based upon the Contractor's commitment, the MBE/WBE shall participate in additional work to the same extent as the MBE/WBE participated in the original contract work.

When the Engineer makes changes that result in extra work, which has more than a minimal impact on the contract amount, the Contractor shall seek additional participation by MBEs/WBEs unless otherwise approved by the Engineer.

When the Engineer makes changes that result in an alteration of plans or details of construction, and a portion or all of the work had been expected to be performed by a committed MBE/WBE, the Contractor shall seek participation by MBEs/WBEs unless otherwise approved by the Engineer.

When the Contractor requests changes in the work that result in the reduction or elimination of work that the Contractor committed to be performed by a MBE/WBE, the Contractor shall seek additional participation by MBEs/WBEs equal to the reduced MBE/WBE participation caused by the changes.

Reports and Documentation

A SAF (*Subcontract Approval Form*) shall be submitted for all work which is to be performed by a MBE/WBE subcontractor. The Department reserves the right to require copies of actual subcontract agreements involving MBE/WBE subcontractors.

When using transportation services to meet the contract commitment, the Contractor shall submit a proposed trucking plan in addition to the SAF. The plan shall be submitted prior to beginning construction on the project. The plan shall include the names of all trucking firms proposed for use, their certification type(s), the number of trucks owned by the firm, as well as the individual truck identification numbers, and the line item(s) being performed.

Within 30 calendar days of entering into an agreement with a MBE/WBE for materials, supplies or services, not otherwise documented by the SAF as specified above, the Contractor shall furnish the Engineer a copy of the agreement. The documentation shall also indicate the percentage (60% or 100%) of expenditures claimed for MBE/WBE credit.

Reporting Minority and Women Business Enterprise Participation

The Contractor shall provide the Engineer with an accounting of payments made to all MBE and WBE firms, including material suppliers and contractors at all levels (prime, subcontractor, or second tier subcontractor). This accounting shall be furnished to the Engineer for any given month by the end of the following month. Failure to submit this information accordingly may result in the following action:

(A) Withholding of money due in the next partial pay estimate; or

(B) Removal of an approved contractor from the prequalified bidders' list or the removal of other entities from the approved subcontractors list.

While each contractor (prime, subcontractor, 2nd tier subcontractor) is responsible for accurate accounting of payments to MBEs/WBEs, it shall be the prime contractor's responsibility to report all monthly and final payment information in the correct reporting manner.

Failure on the part of the Contractor to submit the required information in the time frame specified may result in the disqualification of that contractor and any affiliate companies from further bidding until the required information is submitted.

Failure on the part of any subcontractor to submit the required information in the time frame specified may result in the disqualification of that contractor and any affiliate companies from being approved for further work on future projects until the required information is submitted.

Contractors reporting transportation services provided by non-MBE/WBE lessees shall evaluate the value of services provided during the month of the reporting period only.

At any time, the Engineer can request written verification of subcontractor payments.
The Contractor shall report the accounting of payments through the Department's DBE Payment Tracking System.

Failure to Meet Contract Requirements

Failure to meet contract requirements in accordance with Subarticle 102-15(J) of the *Standard Specifications* may be cause to disqualify the Contractor.

RESTRICTIONS ON ITS EQUIPMENT AND SERVICES:
(11-17-20) SP01 G090

All telecommunications, video or other ITS equipment or services installed or utilized on this project must be in conformance with UNIFORM ADMINISTRATIVE REQUIREMENTS, COST PRINCIPLES, AND AUDIT REQUIREMENTS FOR FEDERAL AWARDS **2 CFR, § 200.216 Prohibition on certain telecommunications and video surveillance services or equipment.**

USE OF UNMANNED AIRCRAFT SYSTEM (UAS):

(8-20-19)(Rev. 12-15-26) SP1 G092

The Contractor shall adhere to all Federal, State and Local regulations and guidelines for the use of Unmanned Aircraft Systems (UAS). This includes but is not limited to US 14 CFR Part 107, NC GS 15A-300, American Security Drone Act of 2023 (ASDA), Office of Management and Budget (OMB) Memorandum M-26-02, FHWA UAS Policy No. FHWA-HIF-26-011, all FAA rules, regulations and policies and all NCDOT UAS Policies. The required operator certifications include possessing a current Federal Aviation Administration (FAA) Remote Pilot Certificate, as well as operating a UAS registered with the FAA.

All UAS operations shall be approved by the Engineer prior to beginning the operations. The Contractor shall provide, upon request, documentation of the manufacturer and supply chain provenance for all UAS used on the project.

All contractors or subcontractors operating UAS shall have UAS specific general liability insurance to cover all operations under this contract.

The use of UAS is at the Contractor's discretion. No measurement or payment will be made for the use of UAS. In the event that the Department directs the Contractor to utilize UAS, payment will be in accordance with Article 104-7 Extra Work.

EQUIPMENT IDLING GUIDELINES:

(1-19-21) 107 SP1 G096

Exercise reduced fuel consumption and reduced equipment emissions during the construction of all work associated with this contract. Employees engaged in the construction of this project should turn off vehicles when stopped for more than thirty (30) minutes and off-highway equipment should idle no longer than fifteen (15) consecutive minutes.

These guidelines for turning off vehicles and equipment when idling do not apply to:

1. Idling when queuing.
2. Idling to verify the vehicle is in safe operating condition.
3. Idling for testing, servicing, repairing or diagnostic purposes.
4. Idling necessary to accomplish work for which the vehicle was designed (such as operating a crane, mixing concrete, etc.).
5. Idling required to bring the machine system to operating temperature.
6. Emergency vehicles, utility company, construction, and maintenance vehicles where the engines must run to perform needed work.
7. Idling to ensure safe operation of the vehicle.
8. Idling when the propulsion engine is providing auxiliary power for other than heating or air conditioning. (such as hydraulic systems for pavers)
9. When specific traffic, safety, or emergency situations arise.
10. If the ambient temperature is less than 32 degrees Fahrenheit. Limited idling to provide for the safety of vehicle occupants (e.g. to run the heater).

11. If the ambient temperature is greater than 90 degrees Fahrenheit. Limited idling to provide for the safety of vehicle occupants of off-highway equipment (e.g. to run the air conditioning) no more than 30 minutes.
12. Diesel powered vehicles may idle for up to 30 minutes to minimize restart problems.

Any vehicle, truck, or equipment in which the primary source of fuel is natural gas or electricity is exempt from the idling limitations set forth in this special provision.

ELECTRONIC BIDDING:

(8-18-26) 101, 102, 103 SP1 G140

Revise the *Standard Specifications* as follows:

Page 1-4, Article 101-3, DEFINITIONS, BID (OR PROPOSAL) ***Electronic Bid,*** **line 3,** replace "electronic bidding software" with "electronic bidding website".

Page 1-16, Subarticle 102-8(B), Electronic Bids, lines 13-14, replace "electronic bidding software" with "electronic bidding website".

Page 1-18, Article 102-10, BID BOND OR BID DEPOSIT, line 43, replace "electronic bidding software" with "electronic bidding website".

Page 1-18, Article 102-11, DELIVERY OF BIDS, line 47, replace "electronic bidding software" with "electronic bidding website".

Page 1-25, Subarticle 103-4(B)(2), Electronic Bids, line 20, replace the first paragraph with the following:

This form is located on the electronic submittal website. The bidder shall click on yes or no to indicate whether or not the bidder desires to limit the award, provide the award limit if desiring to limit the award, and provide the project number and county of the projects associated with the award limit.

TWELVE MONTH GUARANTEE:

(7-15-03) 108 SP1 G145

(A) The Contractor shall guarantee materials and workmanship against latent and patent defects arising from faulty materials, faulty workmanship or negligence for a period of twelve months following the date of final acceptance of the work for maintenance and shall replace such defective materials and workmanship without cost to the Department. The Contractor will not be responsible for damage due to faulty design, normal wear and tear, for negligence on the part of the Department, and/or for use in excess of the design.

(B) Where items of equipment or material carry a manufacturer's guarantee for any period in excess of twelve months, then the manufacturer's guarantee shall apply for that particular piece of equipment or material. The Department's first remedy shall be through the manufacturer although the Contractor is responsible for invoking the warranted repair work with the manufacturer. The Contractor's responsibility shall be limited to the term of the manufacturer's guarantee. NCDOT would be afforded the same warranty as provided by the Manufacturer.

This guarantee provision shall be invoked only for major components of work in which the Contractor would be wholly responsible for under the terms of the contract. Examples would include pavement structures, bridge components, and sign structures. This provision will not be used as a mechanism to force the Contractor to return to the project to make repairs or perform additional work that the Department would normally compensate the Contractor for. In addition, routine maintenance activities (i.e. mowing grass, debris removal, ruts in earth shoulders,) are not parts of this guarantee.

Appropriate provisions of the payment and/or performance bonds shall cover this guarantee for the project.

To ensure uniform application statewide the Division Engineer will forward details regarding the circumstances surrounding any proposed guarantee repairs to the Chief Engineer for review and approval prior to the work being performed.

OUTSOURCING OUTSIDE THE USA:

(9-21-04) (Rev. 5-16-06) SP1 G150

All work on consultant contracts, services contracts, and construction contracts shall be performed in the United States of America. No work shall be outsourced outside of the United States of America.

Outsourcing for the purpose of this provision is defined as the practice of subcontracting labor, work, services, staffing, or personnel to entities located outside of the United States.

The North Carolina Secretary of Transportation shall approve exceptions to this provision in writing.

EROSION AND SEDIMENT CONTROL/STORMWATER CERTIFICATION:

(1-16-07) (Rev. 10-15-24) 105-16, 225-2, 16 SP1 G180

General

Schedule and conduct construction activities in a manner that will minimize soil erosion and the resulting sedimentation and turbidity of surface waters. Comply with the requirements herein regardless of whether or not a National Pollution discharge Elimination System (NPDES) permit for the work is required.

Establish a chain of responsibility for operations and subcontractors' operations to ensure that the *Erosion and Sediment Control/Stormwater Pollution Prevention Plan* is implemented and maintained over the life of the contract.

(A) *Certified Supervisor* - Provide a certified Erosion and Sediment Control/Stormwater Supervisor to manage the Contractor and subcontractor operations, insure compliance with Federal, State and Local ordinances and regulations, and manage the Quality Control Program.

(B) *Certified Foreman* - Provide a certified, trained foreman for each construction operation that increases the potential for soil erosion or the possible sedimentation and turbidity of surface waters.

(C) *Certified Installer* - Provide a certified installer to install or direct the installation for erosion or sediment/stormwater control practices.

(D) *Certified Designer* - Provide a certified designer for the design of the erosion and sediment control/stormwater component of reclamation plans and, if applicable, for the design of the project erosion and sediment control/stormwater plan.

Roles and Responsibilities

(A) *Certified Erosion and Sediment Control/Stormwater Supervisor* - The Certified Supervisor shall be Level II and responsible for ensuring the erosion and sediment control/stormwater plan is adequately implemented and maintained on the project and for conducting the quality control program. The Certified Supervisor shall be on the project within 24 hours notice from initial exposure of an erodible surface to the project's final acceptance. Perform the following duties:

(1) Manage Operations - Coordinate and schedule the work of subcontractors so that erosion and sediment control/stormwater measures are fully executed for each operation and in a timely manner over the duration of the contract.

(a) Oversee the work of subcontractors so that appropriate erosion and sediment control/stormwater preventive measures are conformed to at each stage of the work.
(b) Prepare the required National Pollutant Discharge Elimination System (NPDES) Inspection Record and submit to the Engineer.
(c) Attend all weekly or monthly construction meetings to discuss the findings of the NPDES inspection and other related issues.
(d) Implement the erosion and sediment control/stormwater site plans requested.
(e) Provide any needed erosion and sediment control/stormwater practices for the Contractor's temporary work not shown on the plans, such as, but not limited to work platforms, temporary construction, pumping operations, plant and storage yards, and cofferdams.
(f) Acquire applicable permits and comply with requirements for borrow pits, dewatering, and any temporary work conducted by the Contractor in jurisdictional areas.
(g) Conduct all erosion and sediment control/stormwater work in a timely and workmanlike manner.
(h) Fully perform and install erosion and sediment control/stormwater work prior to any suspension of the work.
(i) Coordinate with Department, Federal, State and Local Regulatory agencies on resolution of erosion and sediment control/stormwater issues due to the Contractor's operations.

(j) Ensure that proper cleanup occurs from vehicle tracking on paved surfaces or any location where sediment leaves the Right-of-Way.

(k) Have available a set of erosion and sediment control/stormwater plans that are initialed and include the installation date of Best Management Practices. These practices shall include temporary and permanent groundcover and be properly updated to reflect necessary plan and field changes for use and review by Department personnel as well as regulatory agencies.

(2) Requirements set forth under the NPDES Permit - The Department's NPDES Stormwater permit (NCS000250) outlines certain objectives and management measures pertaining to construction activities. The permit references *NCG010000, General Permit to Discharge Stormwater* under the NPDES, and states that the Department shall incorporate the applicable requirements into its delegated Erosion and Sediment Control Program for construction activities disturbing one or more acres of land. The Department further incorporates these requirements on all contracted bridge and culvert work at jurisdictional waters, regardless of size. Some of the requirements are, but are not limited to:

(a) Control project site waste to prevent contamination of surface or ground waters of the state, i.e. from equipment operation/maintenance, construction materials, concrete washout, chemicals, litter, fuels, lubricants, coolants, hydraulic fluids, any other petroleum products, and sanitary waste.

(b) Inspect erosion and sediment control/stormwater devices and stormwater discharge outfalls at least once every 7 calendar days and within 24 hours after a rainfall event equal to or greater than 1.0 inch that occurs within a 24 hour period. Additional monitoring may be required at the discretion of Division of Water Resources personnel if the receiving stream is 303(d) listed for turbidity and the project has had documented problems managing turbidity.

(c) Maintain an onsite rain gauge or use the Department’s Multi-Sensor Precipitation Estimate website to maintain a daily record of rainfall amounts and dates.

(d) Maintain erosion and sediment control/stormwater inspection records for review by Department and Regulatory personnel upon request.

(e) Implement approved reclamation plans on all borrow pits, waste sites and staging areas.

(f) Maintain a log of turbidity test results as outlined in the Department's Procedure for Monitoring Borrow Pit Discharge.

(g) Provide secondary containment for bulk storage of liquid materials.

(h) Provide training for employees concerning general erosion and sediment control/stormwater awareness, the Department’s NPDES Stormwater Permit NCS000250 requirements, and the applicable requirements of the *General Permit, NCG010000*.

(i) Report violations of the NPDES permit to the Engineer immediately who will notify the Division of Water Quality Regional Office within 24 hours of becoming aware of the violation.

(3) Quality Control Program - Maintain a quality control program to control erosion, prevent sedimentation and follow provisions/conditions of permits. The quality control program shall:

(a) Follow permit requirements related to the Contractor and subcontractors' construction activities.
(b) Ensure that all operators and subcontractors on site have the proper erosion and sediment control/stormwater certification.
(c) Notify the Engineer when the required certified erosion and sediment control/stormwater personnel are not available on the job site when needed.
(d) Conduct the inspections required by the NPDES permit.
(e) Take corrective actions in the proper timeframe as required by the NPDES permit for problem areas identified during the NPDES inspections.
(f) Incorporate erosion control into the work in a timely manner and stabilize disturbed areas with mulch/seed or vegetative cover on a section-by-section basis.
(g) Use flocculants approved by state regulatory authorities where appropriate and where required for turbidity and sedimentation reduction.
(h) Ensure proper installation and maintenance of temporary erosion and sediment control devices.
(i) Remove temporary erosion or sediment control devices when they are no longer necessary as agreed upon by the Engineer.
(j) The Contractor's quality control and inspection procedures shall be subject to review by the Engineer. Maintain NPDES inspection records and make records available at all times for verification by the Engineer.

(B) *Certified Foreman* - At least one Certified Foreman shall be onsite for each type of work listed herein during the respective construction activities to control erosion, prevent sedimentation and follow permit provisions:

(1) Foreman in charge of grading activities
(2) Foreman in charge of bridge or culvert construction over jurisdictional areas
(3) Foreman in charge of utility activities

The Contractor may request to use the same person as the Level II Supervisor and Level II Foreman. This person shall be onsite whenever construction activities as described above are taking place. This request shall be approved by the Engineer prior to work beginning.

The Contractor may request to name a single Level II Foreman to oversee multiple construction activities on small bridge or culvert replacement projects. This request shall be approved by the Engineer prior to work beginning.

(C) *Certified Installers* - Provide at least one onsite, Level I Certified Installer for each of the following erosion and sediment control/stormwater crew:

(1) Seeding and Mulching
(2) Temporary Seeding
(3) Temporary Mulching

(4) Sodding
(5) Silt fence or other perimeter erosion/sediment control device installations
(6) Erosion control blanket installation
(7) Hydraulic tackifier installation
(8) Turbidity curtain installation
(9) Rock ditch check/sediment dam installation
(10) Ditch liner/matting installation
(11) Inlet protection
(12) Riprap placement
(13) Stormwater BMP installations (such as but not limited to level spreaders, retention/detention devices)
(14) Pipe installations within jurisdictional areas

If a Level I *Certified Installer* is not onsite, the Contractor may substitute a Level II Foreman for a Level I Installer, provided the Level II Foreman is not tasked to another crew requiring Level II Foreman oversight.

(D) *Certified Designer* - Include the certification number of the Level III Certified Designer on the erosion and sediment control/stormwater component of all reclamation plans and if applicable, the certification number of the Level III Certified Designer on the design of the project erosion and sediment control/stormwater plan.

Preconstruction Meeting

Furnish the names of the *Certified Erosion and Sediment Control/Stormwater Supervisor, Certified Foremen, Certified Installers* and *Certified Designer* and notify the Engineer of changes in certified personnel over the life of the contract within 2 days of change.

Ethical Responsibility

Any company performing work for the North Carolina Department of Transportation has the ethical responsibility to fully disclose any reprimand or dismissal of an employee resulting from improper testing or falsification of records.

Revocation or Suspension of Certification

Upon recommendation of the Chief Engineer to the certification entity, certification for *Supervisor*, *Certified Foremen*, *Certified Installers* and *Certified Designer* may be revoked or suspended with the issuance of an *Immediate Corrective Action (ICA), Notice of Violation (NOV),* or C*ease and Desist Order* for erosion and sediment control/stormwater related issues.

The Chief Engineer may recommend suspension or permanent revocation of certification due to the following:

(A) Failure to adequately perform the duties as defined within this certification provision.
(B) Issuance of an ICA, NOV, or Cease and Desist Order.
(C) Failure to fully perform environmental commitments as detailed within the permit conditions and specifications.

(D) Demonstration of erroneous documentation or reporting techniques.
(E) Cheating or copying another candidate's work on an examination.
(F) Intentional falsification of records.
(G) Directing a subordinate under direct or indirect supervision to perform any of the above actions.
(H) Dismissal from a company for any of the above reasons.
(I) Suspension or revocation of one's certification by another entity.

Suspension or revocation of a certification will be sent by certified mail to the certificant and the Corporate Head of the company that employs the certificant.

A certificant has the right to appeal any adverse action which results in suspension or permanent revocation of certification by responding, in writing, to the Chief Engineer within 10 calendar days after receiving notice of the proposed adverse action.

Chief Engineer
1536 Mail Service Center
Raleigh, NC 27699-1536

Failure to appeal within 10 calendar days will result in the proposed adverse action becoming effective on the date specified on the certified notice. Failure to appeal within the time specified will result in a waiver of all future appeal rights regarding the adverse action taken. The certificant will not be allowed to perform duties associated with the certification during the appeal process.

The Chief Engineer will hear the appeal and make a decision within 7 days of hearing the appeal. Decision of the Chief Engineer will be final and will be made in writing to the certificant.

If a certification is temporarily suspended, the certificant shall pass any applicable written examination and any proficiency examination, at the conclusion of the specified suspension period, prior to having the certification reinstated.

Measurement and Payment

All work described within this provision and the role of Certified Erosion and Sediment Control/Stormwater Supervisor, Certified Foremen, Certified Installers and Certified Designer will be incidental to the project for which no direct compensation will be made.

PROCEDURE FOR MONITORING BORROW PIT DISCHARGE:

(2-20-07) (Rev. 1-16-24) 105-16, 230, 801 SP1 G181

Water discharge from borrow pit sites shall not cause surface waters to exceed 50 NTUs (nephelometric turbidity unit) in streams not designated as trout waters and 10 NTUs in streams, lakes or reservoirs designated as trout waters. For lakes and reservoirs not designated as trout waters, the turbidity shall not exceed 25 NTUs. If the turbidity exceeds these levels due to natural background conditions, the existing turbidity level shall not be increased.

If during any operating day, the downstream water quality exceeds the standard, the Contractor shall do all of the following:

(A) Either cease discharge or modify the discharge volume or turbidity levels to bring the downstream turbidity levels into compliance, or

(B) Evaluate the upstream conditions to determine if the exceedance of the standard is due to natural background conditions. If the background turbidity measurements exceed the standard, operation of the pit and discharge can continue as long as the stream turbidity levels are not increased due to the discharge.

(C) Measure and record the turbidity test results (time, date and sampler) at all defined sampling locations 30 minutes after startup and at a minimum, one additional sampling of all sampling locations during that 24-hour period in which the borrow pit is discharging.

(D) Notify DWQ within 24 hours of any stream turbidity standard exceedances that are not brought into compliance.

During the Environmental Assessment required by Article 230-4 of the *Standard Specifications*, the Contractor shall define the point at which the discharge enters into the State's surface waters and the appropriate sampling locations. Sampling locations shall include points upstream and downstream from the point at which the discharge enters these waters. Upstream sampling location shall be located so that it is not influenced by backwater conditions and represents natural background conditions. Downstream sampling location shall be located at the point where complete mixing of the discharge and receiving water has occurred.

The discharge shall be closely monitored when water from the dewatering activities is introduced into jurisdictional wetlands. Any time visible sedimentation (deposition of sediment) on the wetland surface is observed, the dewatering activity will be suspended until turbidity levels in the stilling basin can be reduced to a level where sediment deposition does not occur. Staining of wetland surfaces from suspended clay particles, occurring after evaporation or infiltration, does not constitute sedimentation. No activities shall occur in wetlands that adversely affect the functioning of a wetland. Visible sedimentation will be considered an indication of possible adverse impacts on wetland use.

The Engineer will perform independent turbidity tests on a random basis. These results will be maintained in a log within the project records. Records will include, at a minimum, turbidity test results, time, date and name of sampler. Should the Department's test results exceed those of the Contractor's test results, an immediate test shall be performed jointly with the results superseding the previous test results of both the Department and the Contractor.

The Contractor shall use the *NCDOT Turbidity Reduction Options for Borrow Pits Matrix,* available at https://connect.ncdot.gov/resources/roadside/FieldOperationsDocuments/TurbidityReductionOptionSheet.pdf to plan, design, construct, and maintain BMPs to address water quality standards. Tier I Methods include stilling basins which are standard compensatory BMPs. Other Tier I methods are noncompensatory and shall be used when needed to meet the stream turbidity standards. Tier II Methods are also noncompensatory and are options that may be needed for protection of rare or unique resources or where special environmental conditions exist at the site which have led to additional requirements being placed in the DWQ's 401 Certifications and approval letters, Isolated Wetland Permits, Riparian Buffer Authorization or a DOT Reclamation Plan's Environmental Assessment for the specific site. Should the Contractor

exhaust all Tier I Methods on a site exclusive of rare or unique resources or special environmental conditions, Tier II Methods may be required by regulators on a case by case basis per supplemental agreement.

The Contractor may use cation exchange capacity (CEC) values from proposed site borings to plan and develop the bid for the project. CEC values exceeding 15 milliequivalents per 100 grams of soil may indicate a high potential for turbidity and should be avoided when dewatering into surface water is proposed.

No additional compensation for monitoring borrow pit discharge will be paid.

NOTE TO CONTRACTOR:

(8-19-25) SP1 G999A

The Contractor shall remove and reset eight (8) Leyland Cypress trees located on Parcel 13. The trees shall be relocated to a location outside of and adjacent to the northeastern (right) right of way boundary of SR 1132 (Upper Crab Orchard Road) as it extends through Parcel 13, as directed by the Engineer. The Contractor shall exercise due care in removing, transporting, storing (if necessary), and resetting the trees to minimize damage and ensure their successful reestablishment.

All labor, equipment, materials, incidentals, excavation, backfilling, watering, mulching, and all work necessary to complete the removal and resetting of the trees shall be included in the contract.

No separate payment will be made for this work. The cost of removing and resetting the eight (8) Leyland Cypress trees shall be considered incidental to and included in the contract lump sum price for Grading.

If suitable roost trees or structures are present near high-decibel percussive activities (81-162 dBA as measured from 50 feet from source), those percussive activities will be avoided from May 1 – July 31, when non-volant pups may be present.

PROJECT SPECIAL PROVISIONS

ROADWAY

CLEARING AND GRUBBING - METHOD II:

(9-17-02)(Rev. 3-19-24) 200 SP2 R02A

Perform clearing on this project to the limits established by Method - II shown on Standard Drawing No. 200.02 of the *Roadway Standard Drawings*. Conventional clearing methods may be used except where permit drawings or conditions have been included in the proposal which require certain areas to be cleared by hand methods.

BURNING RESTRICTIONS:

(7-1-95) 200, 210, 215 SP2 R05

Open burning is not permitted on any portion of the right-of-way limits established for this project. Do not burn the clearing, grubbing or demolition debris designated for disposal and generated from the project at locations within the project limits, off the project limits or at any waste or borrow sites in this county. Dispose of the clearing, grubbing and demolition debris by means other than burning, according to state or local rules and regulations.

ROADWAY EXCAVATION:

(10-20-26) 225 SP2 R50

Revise the *Standard Specifications* as follows:

Page 2-12, Article 225-1, DESCRIPTION, add the following after line 42:

When excavation operations encounter graves, temporarily discontinue operations in the vicinity of the graves and do not resume until directed by the Engineer.

When excavation operations encounter contaminated soils, temporarily discontinue operations in the vicinity of the contamination and do not resume until directed by the Engineer.

When excavation operations encounter artifacts or remains of historical, cultural, or archeological significance, temporarily discontinue operations in the vicinity of the artifacts or remains and do not resume until directed by the Engineer. Disposition of the artifacts shall be in accordance with the requirements of the Division of Archives and History.

Discontinuing operations shall include promptly ceasing all work in the vicinity, immediately notifying the Engineer as to the discovery for legally required authority notification, taking all precautions to protect the discovery from further disturbance to include securing the area and preventing access to it, and preserving all materials as found as directed by the Engineer.

Page 2-15, Article 225-3, UNCLASSIFIED EXCAVATION, lines 23-30, delete the last three paragraphs.

MANUFACTURED QUARRY FINES IN EMBANKMENTS:

(01-17-17)(Rev. 4-16-24) 235 SP02 R72

Description

This specification addresses the use of manufactured quarry fines that are not classified as select materials. The specification allows the Contractor an option, with the approval of the Engineer, to use manufactured quarry fines (MQFs) in embankments as a substitute for conventional borrow material. Furnish and place geotextile for subgrade stabilization in accordance with the contract. Geotextile for subgrade stabilization is required to prevent pavement cracking and provide separation between the subgrade and pavement section at embankment locations where manufactured quarry fines are utilized and as directed by the Engineer.

Materials

Manufactured Quarry Fines.

Site specific approval of MQFs material will be required prior to beginning construction as detailed in the preconstruction requirements of this provision.

The following MQFs are unacceptable:

(A) Frozen material,

(B) Material with a maximum dry unit weight of less than 90 pounds per cubic foot when tested in accordance with AASHTO T 99 Method A or C.

(C) Material with greater than 80% by weight Passing the #200 sieve

Collect and transport MQFs in a manner that will prevent nuisances and hazards to public health and safety. Moisture condition the MQFs as needed and transport in covered trucks to prevent dusting. If MQFs are blended with natural earth material, follow Borrow Criteria in Section 1018 of the *Standard Specifications.*

Preconstruction Requirements

When MQFs are to be used as a substitute for earth borrow material, request written approval from the Engineer at least ninety (90) days in advance of the intent to use MQFs and include the following details:

(A) Description, purpose and location of project.

(B) Estimated start and completion dates of project.

(C) Estimated volume of MQFs to be used on project with specific locations and construction details of the placement.

(D) The names, address, and contact information for the generator of the MQFs.

(E) Physical location of the site at which the MQFs were generated.

The Engineer will forward this information to the State Materials Engineer for review and material approval.

Construction Methods

Place MQFs in the core of the embankment section with at least 4 feet of earth cover to the outside limits of the embankments or subgrade.

Construct embankments by placing MQFs in level uniform lifts with no more than a lift of 10 inches and compacted to at least a density of 95 percent as determined by test methods in AASHTO T 99, Determination of Maximum Dry Density and Optimum Moisture Content, Method A or C depending upon particle size of the product. Provide a moisture content at the time of compaction of within 4 percent of optimum but not greater than one percent above optimum as determined by AASHTO T 99, Method A or C.

In embankments where MQFs are incorporated, geotextile for subgrade stabilization shall be used. Refer to Article 505-2 of the *Standard Specifications* for geotextile type and Article 505-3 of the *Standard Specifications* for the geotextile construction methods.

Measurement and Payment

Borrow Excavation will be measured by truck volume and paid in cubic yards in accordance with Article 230-5 of the *Standard Specifications*. As an alternate weigh tickets can be provided and payment made by converting weight to cubic yards based on the verifiable unit weight. Where the pay item for *Borrow Excavation* is not included in the original contract then no separate payment will be made for this item and payment will be included in the lump sum price bid for *Grading*.

Geotextile for Subgrade Stabilization will be measured and paid in accordance with Article 505-4 of the *Standard Specifications*. When the pay item for *Geotextile for Subgrade Stabilization* is not included in the original contract then no payment will be made for this item and will be considered incidental to the use of MQFs in embankment.

CORRUGATED ALUMINUM ALLOY CULVERT PIPE:

(9-21-21)(Rev. 1-16-24) 305, 310 SP3 R34

Revise the *Standard Specifications* as follows:

Page 3-5, Article 305-2, MATERIALS, add the following after line 16:

Item	**Section**
Waterborne Paint	1080-9
Hot Bitumen	1081-3

Page 3-5, Article 305-3, CONSTRUCTION METHODS, add the following after line 26:

Coating must be applied to the aluminum when in contact with concrete. Immediately prior to coating, aluminum surfaces to be coated shall be cleaned by a method that will remove all dirt, oil, grease, chips, and other foreign substances. Aluminum to be coated shall be given one coat of suitable quality coating such as:

Approved waterborne paint (Section 1080-9)
Approved Hot Bitumen (Section 1081-3)

Other coating materials may be submitted to the Engineer for approval.

Page 3-7, Article 310-6, MEASUREMENT AND PAYMENT, lines 10-11, delete the fourth sentence and replace with the following:

Select bedding and backfill material and coating will be included in the cost of the installed pipe.

INCIDENTAL STONE BASE:

(7-1-95)(Rev.1-16-24) 545 SP5 R28R

Description

Place incidental stone base on driveways, mailboxes, etc. immediately after paving and do not have the paving operations exceed stone base placement by more than one week without written permission of the Engineer.

Materials and Construction

Provide and place incidental stone base in accordance with Section 545 of the *Standard Specifications*.

Measurement and Payment

Incidental Stone Base will be measured and paid in accordance with Article 545-6 of the *Standard Specifications*.

PRICE ADJUSTMENT - ASPHALT BINDER FOR PLANT MIX:

(11-21-00)(Rev. 1-16-24) 620 SP6 R25

Price adjustments for asphalt binder for plant mix will be made in accordance with Section 620 of the *Standard Specifications.*

The base price index for asphalt binder for plant mix is **$ 752.50** per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on **November 1, 2026**.

DELETION OF FINAL SURFACE TESTING REQUIREMENTS:

(1-20-25) 610 SP6 R045A

Revise the *Standard Specifications* as follows:

Pages 6-24 to 6-30, Article 610-13 FINAL SURFACE TESTING AND ACCEPTANCE, delete Article 610-13 in its entirety.

ASPHALT SURFACE TREATMENT AGGREGATE TYPE AND APPLICATION RATES:

(02-13-15) (Rev 01-16-18) 660 SP06 R054

SEAL TYPES AND MATERIAL APPLICATION RATES					
MAP #	**TYPE OF SEAL**	**LAYER**	**AGGREGATE TYPE**	**AGGREGATE TARGET RATES[A] (LBS/SY)**	**EMULSION TARGET RATES[B,C,D] (GAL/SY)**
1	TRIPLE	TOP	78M	13	.18
		MIDDLE	78M	15	.24
		BOTTOM	78M	17	.24

A. Aggregate Target Rates have +/- 2.0 lbs/sy tolerance limit.
B. Emulsion Target Rates have +/- 0.05 gal/sy tolerance limit.
C. Grades of emulsion shall be CRS-2L or CRS-2P.
D. Application temperatures shall be 160-170ºF.

Contractor shall adjust aggregate and emulsion rates as necessary based on the existing surface, roadway conditions, weather conditions, and as directed by the Engineer. When the Engineer requires aggregate to be applied at rates above the tolerance limit, the additional aggregate above the limit will be paid in accordance with Article 104-7 of the *Standard Specifications*.

ELECTRONIC TICKETING SYSTEM:

(7-16-24)(Rev. 12-17-24) 1020 SP10 R20

Description

At the contractor's option, the use of an electronic ticketing system for reporting individual and cumulative asphalt material deliveries may be utilized on this project. At the preconstruction conference, the contractor shall notify the Engineer if they intend to utilize an electronic ticketing system for reporting individual and cumulative asphalt material deliveries to the project.

Electronic Ticketing Requirements

a. The electronic ticketing system must be fully integrated with the load read-out system at the plant. The system shall be designed so data inputs from scales cannot be altered by either the Contractor or the Department.

b. Material supplier must test to confirm that ticketing data can be shared from the originating system no less than 30 days prior to project start.

c. After each truck is loaded, ticket data must be electronically captured, and ticket information uploaded via Application Programming Interface (API) to the Department.

d. Obtain security token from NCDOT for access to E-Ticketing portal (to send tickets). To request a Security Key, fill out the below E-Ticketing Security Request Form: https://forms.office.com/g/XnT7QeRtgt

e. Obtain API from NCDOT containing the required e-ticketing data fields and format. Download the API from the NCDOT E-ticketing Webpage: https://connect.ncdot.gov/projects/construction/E-Ticketing/Pages/default.aspx

f. Provide all ticket information in real time and daily summaries to the Department's designated web portal. If the project contains locations with limited cellular service, an alternative course of action must be agreed upon.

g. Electronic ticketing submissions must be sent between the Material Supplier and the Department.

h. The electronic ticket shall contain the following information:

Date
Contract Number
Supplier Name
Contractor Name
Material
JMF
Gross Weight
Tare Weight
Net Weight
Load Number
Cumulative Weight
Truck Number
Weighmaster Certification
Weighmaster Expiration
Weighmaster Name
Facility Name
Plant Certification Number
Ticket Number
Hauling Firm (optional)
Voided Ticket Number (if necessary)
Original Ticket Number (if necessary)
Supplier Revision (If necessary)

The Contractor/supplier can use the electronic ticketing system of their choice to meet the requirements of this provision.

Measurement and Payment

No measurement or payment will be made for utilizing an electronic ticketing system as the cost of such shall be included in the contract price bid for the material being provided.

TIMBER AND LUMBER:

(4-21-26) 235, 866, 1046, 1050, 1082, 1084, 1089, 1540 SP10 R82

Revise the *Standard Specifications* as follows:

Page 2-23, Article 235-2 MATERIALS, line 26, add the following as the third sentence of the fourth paragraph.

Use pressure treated wood bases meeting the requirements of Section 1082.

Page 8-45, Article 866-2 MATERIALS, line 26, replace "1076-7" with "1050-8".

Page 10-73, Subarticle 1046-3(C) Treated Timber Posts, line 8, replace "treated southern pine" with "pressure treated southern pine".

Page 10-76, Subarticle 1050-2(A) General, line 3, replace "Use treated southern pine meeting Articles 1082-2 and 1082-3" with "Use pressure treated southern pine meeting Articles 1082-2 and 1082-3".

Page 10-76, Subarticle 1050-2(A) General, lines 15-16, replace "All round posts" with "All round wood posts and braces".

Page 10-76, Subarticle 1050-2(A) General, lines 19-20, delete the last sentence of the third paragraph and replace with the following:

The pieces shall show at least 3 annual rings per inch and shall be at least 30% summerwood. All timber and lumber shall conform to the material characteristics detailed in the Southern Pine Inspection Bureau (SPIB) grading rules for the designated grade and may bear the mark of an American Lumber Standards Committee (ALSC) accredited agency.

Page 10-177, Article 1082-1 GENERAL, lines 32-33, delete the first sentence of the first paragraph and replace with the following:

Use southern pine timber and lumber graded in accordance with the current grading rules of the SPIB and manufactured by a Department pre-approved producer/supplier. All timber and lumber shall conform to the material characteristics detailed in the SPIB grading rules for No. 1 Dense or Select Structural (Sel Str.) and bear the mark of an ALSC-accredited agency.

Page 10-177 and 10-178, Article 1082-1 GENERAL, lines 38-42 and line 1, delete the second through fourth sentence of the second paragraph and replace with the following:

Use approved inspection companies listed on the Department's pre-approved producer/suppliers list. The inspection agency must perform inspections of preservative treated materials in accordance with AWPA Standard M2. Each item shall bear the brand, hammer mark, ink stamp or tag of the inspection agency to indicate it has been inspected. In lieu of commercial inspection, materials in Section 1082 manufactured by a facility that is audited by an ALSC-accredited agency and bearing the quality mark of that agency shall be acceptable for use. In addition, the Supplier must furnish Type 4 – Certified Test Reports and Type 6 – Supplier's Certifications in accordance with Article 106-3. Type 6 – Supplier's Certifications are required for each producer/supplier to include any chain of custody changes from the mill to the Department.

Page 10-178, Article 1082-2 UNTREATED TIMBER AND LUMBER, line 7, replace "Dense" with "Grade No. 1 Dense MC19".

Page 10-178, Subarticle 1082-3(A) General, line 13, replace "lumber" with "timber and lumber" and replace "will not" with "with".

Page 10-178, Subarticle 1082-3(B) Bridges, Fender Systems and Piles, lines 22 and 24, replace "Grade No. 1 Dense" with "Grade No. 1 Dense or Select Structural (Sel Str.)".

Page 10-178, Subarticle 1082-3(B) Bridges, Fender Systems and Piles, lines 24-27, delete the third and fourth sentence of the first paragraph and replace with the following:

Timbers for bridges or fender systems that are 5 inches and thicker along the least dimension shall conform to Grade No. 1 Dense or Select Structural (Sel Str.).

Page 10-178, Subarticle 1082-3(B) Bridges, Fender Systems and Piles, line 28, delete and replace the second paragraph with the following:

Timber for piles shall be southern pine and meet the requirements of ASTM D25.

Page 10-178, Subarticle 1082-3(C) Guardrail Posts, Blockouts and related components, lines 33-34, replace "Southern Pine, conforming to Grade No. 1. Rough lumber will be acceptable." with "southern pine, conforming to Grade No. 1 Dense.".

Page 10-178, Subarticle 1082-3(D) Fence Posts and Braces, lines 37-39, delete the first paragraph and replace with the following:

Sawn fence posts and braces shall be southern pine, S4S, and conform to Grade No. 1 Dense.

Page 10-178, Subarticle 1082-3(E) Sign Posts and Battens, lines 42-44, delete the first and second sentence of the first paragraph and replace with the following:

Lumber or timbers for sign posts shall conform to Structural Light Framing, Grade No. 1 Dense.

Page 10-178, Subarticle 1082-3(E) Sign Posts and Battens, line 46, delete the first sentence of the second paragraph.

Page 10-179, Subarticle 1082-3(F) Poles, lines 2-3, delete the first sentence of the first paragraph and replace with the following:

Timber for poles shall be either treated southern pine or coastal douglas-fir and meet the requirements of ANSI O5.1.

Page 10-179, Subarticle 1082-4(A) General, line 8, replace "AASHTO M 133 or AWPA Standards" with "AASHTO M 133 and AWPA Standards".

Page 10-179, Subarticle 1082-4(A) General, lines 14-15, delete the third paragraph.

Page 10-179, Subarticle 1082-4(A) General, line 19, replace ""areas include" with "areas including, but not limited to,".

Page 10-179, Subarticle 1082-4(B) Timber Preservatives, line 24, replace "AASHTO M 133 or AWPA Standards U1" with "AASHTO M 133 and AWPA Standards U1".

Page 10-179, Subarticle 1082-4(C) Bridges, Fender Systems and Piles, lines 27-28, replace "AASHTO M-133 or AWPA Standard U1" with "AASHTO M 133 and AWPA Standard U1".

Page 10-179, Subarticle 1082-4(D) Guardrail Posts, Blockouts and Related Components, lines 32-33, replace "AASHTO M-133 or AWPA Standard U1" with "AASHTO M 133 and AWPA Standard U1".

Page 10-179, Subarticle 1082-4(E) Fence Posts and Braces, lines 36 and 38, replace "AASHTO M-133 or AWPA Standard U1" with "AASHTO M 133 and AWPA Standard U1".

Page 10-179, Subarticle 1082-4(E) Fence Posts and Braces, line 39, replace "except require retention of preservative as below" with "Commodity Specification B. Posts, UC4A".

Page 10-180, Subarticle 1082-4(F) Sign Posts and Battens, line 2, replace "AASHTO M-133 or AWPA Standard U1" with "AASHTO M 133 and AWPA Standard U1".

Page 10-180, Subarticle 1082-4(G) Poles, line 9, replace "AASHTO M-133 or AWPA Standard U1" with "AASHTO M 133 and AWPA Standard U1".

Page 10-180, Subarticle 1084-1(A) Treated Timber Pile, line 16-17, delete and replace the first paragraph with the following:

Treated timber piles shall meet the requirements of Section 1082.

Page 10-195, Subarticle 1089-2(A)(1) Work Zone Signs (Stationary), line 44, add the following sentence to the second paragraph:

Pressure treat wood posts in accordance with Section 1082.

Page 15-18, Article 1540-2 MATERIALS, line 8, replace "1082-3" with "1082".

WORK ZONE INSTALLER:

(7-20-21)(Rev. 4-21-26) 1101 SP11 R04

Revise the *Standard Specifications* as follows:

Page 11-4, Article 1101-14 WORK ZONE INSTALLER, lines 25-26, delete the first sentence of the first paragraph and replace with the following:

When temporary traffic control consists of more than flagging operations, the Contractor shall provide the service of at least one qualified work zone installer during the setup, installation, and removal of temporary traffic control within the highway right of way.

CONES:

(3-19-24) 1135 SP11 R35

Revise the *Standard Specifications* as follows:

Page 11-11, Article 1135-3 CONSTRUCTION METHODS, lines 19-20, delete the third sentence of the first paragraph, "Do not use cones in the upstream taper of lane or shoulder closures for multi-lane roadways.".

FLAGGERS:

(12-17-24)(Rev. 12-23-25) 1150 SP11 R50

Revise Section 1150 of the *Standard Specification* as follows:

Page 11-13, Article 1150-1, DESCRIPTION, add the following after line 31:

Alternatively, at the discretion of the Contractor, the Contractor may furnish, install, place in operation, repair, maintain, relocate, and remove remotely controlled Automated Flagging Assistance Devices (AFAD) or Temporary Portable Traffic Signal units (PTS units) to assist, supplement, or replace human flaggers for one-lane, two-way traffic maintenance during construction in accordance with this provision and the *Standard Specifications*.

For the purpose of this provision, an "approach" refers to a single lane of traffic moving in one direction toward a point of control or work zone. Flaggers, AFAD and PTS units are only used to control one lane of approaching traffic in a specific direction.

Page 11-13, Article 1150-2, MATERIALS, add the following after line 34:

Provide documentation to the Engineer that the AFAD or PTS units meets or exceeds the requirements of this special provision and is on the NCDOT APL or ITS and Signals QPL.

(A) Automated Flagging Assistance Devices (AFAD)

(1) AFAD General

Cover the automated gate arm with Department approved Type VII, VIII or IX retroreflective sheeting of vertical alternating red and white stripes at 16 inch intervals measured horizontally. When the gate arm is in the down position the minimum vertical aspect of the arm and sheeting shall be 4 inches. The retroreflectorized sheeting shall be on both sides of the gate arm. With the AFAD parked or positioned 2 feet outside or in a location deemed acceptable for the lane being controlled, the gate arm shall reach at least to the center of the lane but shall not exceed the width of the lane being controlled.

Design the system to be fail-safe. Provide a conflict monitor, malfunction monitoring unit, or similar device that monitors for malfunctions and prevents the display of conflicting indications. This system shall be electronic and operated by remote control.

(2) AFAD Type I System: RED/YELLOW

Provide a Red/Yellow AFAD with at least one set of CIRCULAR RED and CIRCULAR YELLOW lenses in a vertical configuration that are 12 inches in diameter. The bottom of the housing (including brackets) shall be at least 7 feet (2.1 meters) above the pavement.

This system is required to have yellow 12 inch aluminum or polycarbonate vehicle signal heads with 10 inch tunnel visors, backplates, and Light Emitting Diode (LED) modules. Provide signal heads, backplates, and LED modules listed on the ITS and Signals QPL available on the Department's website.

Provide an automated gate arm on the AFAD that descends to a down position across the approaching lane of traffic when the **s**teady CIRCULAR RED lens is illuminated and then ascends to an upright position when the flashing CIRCULAR YELLOW lens is illuminated. The automated gate arm is to be designed such that if a motorist pulls underneath the gate arm while lowering, no damage to the vehicle occurs.

A STOP HERE ON RED (R10-6 or R10-6a) sign shall be installed on the right-hand side of the approach at the point at which drivers are expected to stop when the steady CIRCULAR RED lens is illuminated.

To stop traffic, the AFAD shall transition from the flashing CIRCULAR YELLOW lens by initiating a minimum 5 second steadily illuminated CIRCULAR YELLOW lens followed by the CIRCULAR RED lens.

Once the CIRCULAR RED lens is displayed, the system is to have a minimum 2 second delay between the time the steady CIRCULAR RED is displayed and the time the gate arm begins to lower. The maximum delay between CIRCULAR RED and the time the gate arm lowers is 4 seconds. To permit stopped road users to proceed, the AFAD shall display the flashing CIRCULAR YELLOW lens and the gate arm shall be placed in the upright position.

Ensure the system monitors for a lack of yellow or red signal voltage, total loss of indication in any direction, presence of multiple indications on any approach and low power conditions.

Additional sets of CIRCULAR RED and CIRCULAR YELLOW lenses located over the roadway or on the left side of the approach and operated in unison with the primary set, may be used to improve visibility of the AFAD. If the set of lenses is located over any portion of the roadway that can be used by motor vehicles, the bottom of the housing (including brackets) shall be at least 15 feet (4.6 meters) above the pavement.

(3) AFAD Type II System: STOP/SLOW

Provide STOP/SLOW signs that are octagonal in shape, made of rigid material, and at least 36 inch x 36 inch in size. Letters shall be a minimum of 8 inches high. The STOP face shall have a red background with white letters and border.

The SLOW face shall be diamond shaped, orange, or yellow background with black letters and border. Cover both faces in a Department approved Type VII, VIII or IX retroreflective

sheeting. The minimum mounting height for the sign faces shall be 7 feet above the pavement to the bottom of the sign.

The AFAD's STOP/SLOW signs shall be supplemented with active conspicuity devices by incorporating a stop beacon (red lens) and a warning beacon (yellow lens). The stop beacon shall be no more than 24 inches above the STOP face. Mount the warning beacon no more than 24 inches above or beside of the SLOW face. Except for the mounting locations, the beacons shall conform to the provisions of Chapter 4L of the MUTCD and have 12 inch signal lenses.

Strobe/flashing lights are an acceptable alternative to flashing beacons. If utilized, they shall be either white or red flashing lights located within the STOP face and white or yellow flashing lights within the SLOW face and conform to the provisions of Chapter 6D of the MUTCD. If used, the lens diameter shall be a minimum of 5 inches with a minimum height of 6 inches. Equip strobes/flashing lights for both dual and quad flash patterns.

Type B warning lights shall not be used in lieu of the beacons or the strobe lights.

The faces of the AFADs STOP/SLOW sign may include louvers. If louvers are used, design the louvers such that the aspect of the sign face to approaching traffic is a full sign face at a distance of 50 feet or greater.

A WAIT ON STOP (R1-7) sign and a GO ON SLOW (R1-8) sign shall be displayed to traffic approaching the AFAD. Position signs on the same support structure as the AFAD. Both signs shall have black legends and borders on white Type III sheeting backgrounds. Each of these signs shall be rectangular in shape and be at least 24 inch x 30 inch size with letters at least 6 inches high.

Provide an automated gate arm on the AFAD that descends to a down position across the approaching lane of traffic when the STOP face is displayed and then ascends to an upright position when the SLOW face is displayed.

The automated gate arm is to be designed such that if a motorist pulls underneath the gate arm while lowering, no damage to the vehicle occurs.

A STOP HERE ON RED (R10-6 or R10-6a) sign shall be installed on the right-hand side of the approach at the point at which drivers are expected to stop when the STOP face is displayed.

When approaching motorists are to proceed, display the SLOW face and the warning beacon or strobes are to flash on the AFAD. When approaching motorists are will be stopped, display the STOP face and the stop beacon or strobes are to flash on the AFAD.

To stop traffic, the AFAD will transition from the SLOW face to the STOP face by initiating a minimum 5 second change cycle. First, the warning beacon is to be steadily illuminated for the change cycle. If strobes are used in lieu of a warning beacon, they are to be placed in the quad flash pattern. At the end of the change cycle, the STOP face is to be displayed with the stop beacon flashing and the warning beacon

or strobes are to stop flashing. Once the STOP face is displayed, the system is to have a minimum 2 second delay between the time the STOP face is displayed and the time the gate arm begins to lower. The maximum delay between the time the STOP face is displayed and the time the gate arm lowers is 4 seconds.

To permit stopped road users to proceed, the gate arm shall be placed in the upright position and the AFAD shall display the SLOW face and the warning beacon or strobes are to flash in the dual flash pattern.

Do not flash the stop beacon when the SLOW face is displayed, and do not flash the warning beacon when the STOP face is displayed.

(B) Portable Traffic Signals (PTS) Units

Provide PTS units with at least one set of CIRCULAR RED, CIRCULAR YELLOW, and CIRCULAR GREEN lenses in a vertical configuration that are 12 inch diameter aluminum or polycarbonate vehicle signal heads with 10 inch tunnel visors, backplates, and Light Emitting Diode (LED) modules. All signal heads, tunnel visors, and backplates shall be yellow in color.

The bottom of the housing (including brackets) shall be at least 7 feet above the pavement for single set units. Additional signal heads on units with more than one signal head shall be capable of extending over the travel lane.

Communication Requirements

All PTS units within the signal set up systems shall maintain communication at all times by either hardwire cable or wireless radio link communication. If the hardwire cable communication is utilized the communication cable shall be deployed in a manner that will not intrude in the direct work area of the project or obstruct vehicular and pedestrian traffic. Utilize radio communication with 900MHz frequency band and frequency hopping capability. The radio link communication system shall have a minimum range of 1 mile.

Fault Mode Requirements

Revert PTS units to a flashing red mode upon system default unless otherwise specified by the Engineer. Equip the PTS units with a remote monitoring system. Where cell communication availability exists, the remote monitoring system shall adhere to the remote monitoring system section of this provision.

Remote Monitoring System

The remote monitoring system (RMS) shall be capable of reporting signal location, battery voltage / battery history and system default. Provide a password protected website viewable from any computer with internet capability for the RMS. In the event of a system default, the RMS shall provide specific information concerning the cause of the system default (i.e. red lamp on signal number 1). Equip the RMS with a mechanism capable of

immediately contacting a minimum of three previously designated individuals via text messaging and/or email upon a default.

The running program operating the PTS units shall be always available and viewable through the RMS website. Maintain a history of the RMS operating system in each signal including operating hours and events and the location of the PTS units.

Trailer / Cart

The AFAD and PTS units may be mounted on either a trailer or a moveable cart system.

Finish all exterior metal surfaces with Federal orange enamel per AMS-STD-595, color chip ID# 13538 or 12473 respectively with a minimum paint thickness of 2.5 mils (64 microns).

Design and test the AFAD or PTS units trailer / cart to withstand an 80 MPH wind load while in the operational position. Provide independent certification that the assembly meets the design wind load.

Equip the AFAD or PTS units with leveling jacks capable of stabilizing the unit in a horizontal position when located on slopes 6:1 or flatter.

Equip trailers in compliance with North Carolina Law governing motor vehicles and include a 12-volt trailer lighting system complying *with Federal Motor Carrier Safety Regulations 393*, safety chains and a minimum 2 inch ball hitch.

Provide a minimum 4 inch wide strip of fluorescent conspicuity sheeting retroreflective sheeting to the frame of the trailer. Apply the sheeting to all sides of the trailer. The sheeting shall meet the ASTM requirements of Type VII, VIII or IX.

Power System

Design the systems to operate both with and without an external power source. Furnish transmitters, generators, batteries, controls and all other components necessary to operate the device.

Provide equipment that is solar powered and supplemented with a battery backup system that includes a minimum 110/120 VAC powered on-board charging system capable of powering the unit for 7 continuous days with no solar power. Each unit shall also be capable of being powered by standard 110/120 VAC power sources, if applicable.

Locate batteries and electronic controls in a locked, weather and vandal resistant housings.

Page 11-14, Article 1150-3, CONSTRUCTION METHODS, add the following after line 11:

Flaggers shall have a path to escape an errant approaching vehicle at all times, unimpeded by barrier, guardrail, guiderail, parked vehicles, construction materials, slopes steeper than 2:1, or any other obstruction at all times. If an unimpeded path cannot be maintained, the Contractor shall use AFAD or PTS units in lieu of a flagger.

Provide documentation to the Engineer prior to deploying the device that the AFAD or PTS units operator(s) are qualified flagger(s) that have been properly trained through an NCDOT approved training agency or other NCDOT approved training provider and that the qualified flagger(s) have received manufacturer training to operate that specific device. This training shall include proper installation, remote control operation, central control systems and maintenance of the AFAD or PTS units. The training shall take place off the project site where training conditions are removed from live traffic. The documentation shall include the names of the authorized trainer, the trainees, the device on which they have been trained and the date of the training. Provide updated documentation to the Engineer prior to deploying any additional operators.

Install advance warning signs and operate AFADs in accordance with the attached detail drawings in this provision.

Install advance warning signs and operate PTS units in accordance with *NCDOT Roadway Standard Drawings* No. 1101.02, Sheet 17.

AFAD and PTS units shall only be used in situations where there is only one lane of approaching traffic in the direction to be controlled. **At no time shall an AFAD unit controlling traffic through the work area be placed in an autonomous mode and/or left unattended.**

Signal timing and operation of PTS units shall be field verified and accepted by the Engineer before use.

Do not use AFAD or PTS units in locations where queueing from the AFAD or PTS units will extend to within 150 feet of a signalized intersection or railroad crossing. Do not use AFAD and PTS units as a substitute for or a replacement for a continuously operating temporary traffic control signal as described in Section 6F.84 of the MUTCD.

If used at night, illuminate each AFAD or PTS units as described in Section 6D of the MUTCD.

Provide a complete AFAD or PTS units that is capable of being relocated as traffic conditions demand.

If AFADs or PTS units become inoperative, be prepared at all times to replace the unit with the same type and model of AFAD or PTS units, revert to human flagging operations or terminate all construction activities requiring the use of the AFAD or PTS units until the AFAD or PTS units become operative or qualified human flaggers are available.

When the work requiring the AFAD or PTS units is not pursued for 30 minutes or longer, power off each AFAD or PTS units. Removed the AFAD or PTS units from the travel lane and relocated to a minimum of 5 feet from the edge line. AFAD gate arms shall be in the upright position. Remove all traffic control devices from the road, place two cones by each AFAD or PTS units and all signs associated with the lane closure operation shall be removed or laid down. At the end of each workday, remove all AFADs or PTS units from the roadway and shoulder areas.

Ensure the system's wireless communication links continuously monitor and verify proper transmission and reception of data used to monitor and control each AFAD or PTS units. Ensure

ambient mobile or other radio transmissions or adverse weather conditions do not affect the system.

In the event of a loss of communications, immediately display the flashing RED or STOP indication on all AFAD or PTS units.

AFAD Specific Construction Methods

The flagger/operator controlling the AFAD units shall be on the project site at all times. If multiple AFAD units are used, one AFAD unit shall be the Main AFAD unit and all other units shall be remote AFAD units. Ensure that each device meets the physical display and operational characteristics as specified in the MUTCD.

Multiple AFAD units may be controlled with **one** flagger/operator when the AFAD units meet each of the following requirements:

(1) AFAD units are spaced no greater than the manufacturer's recommendations.

(2) Both AFAD units can be seen at the same time from the flagger/operator's position, or the AFAD is operating on its own secure network with malfunction detection and notification to the flagger/operator.

(3) The flagger/operator has an unobstructed view of approaching traffic in both directions from the flagger/operator position or the AFAD is operating on its own secure network, with cameras that provide the flagger/operator an unobstructed view of approaching traffic from both directions. The flagger/operator may control the AFAD units from a pilot vehicle.

If any of the above requirements are not met, flagger/operator control each AFAD unit.

AFAD operators may either control traffic at side streets or driveways between the AFAD units or operate the pilot car while operating the AFAD system if approved by the Engineer. AFAD units must continue to be within clear sight of the operator during these work activities.

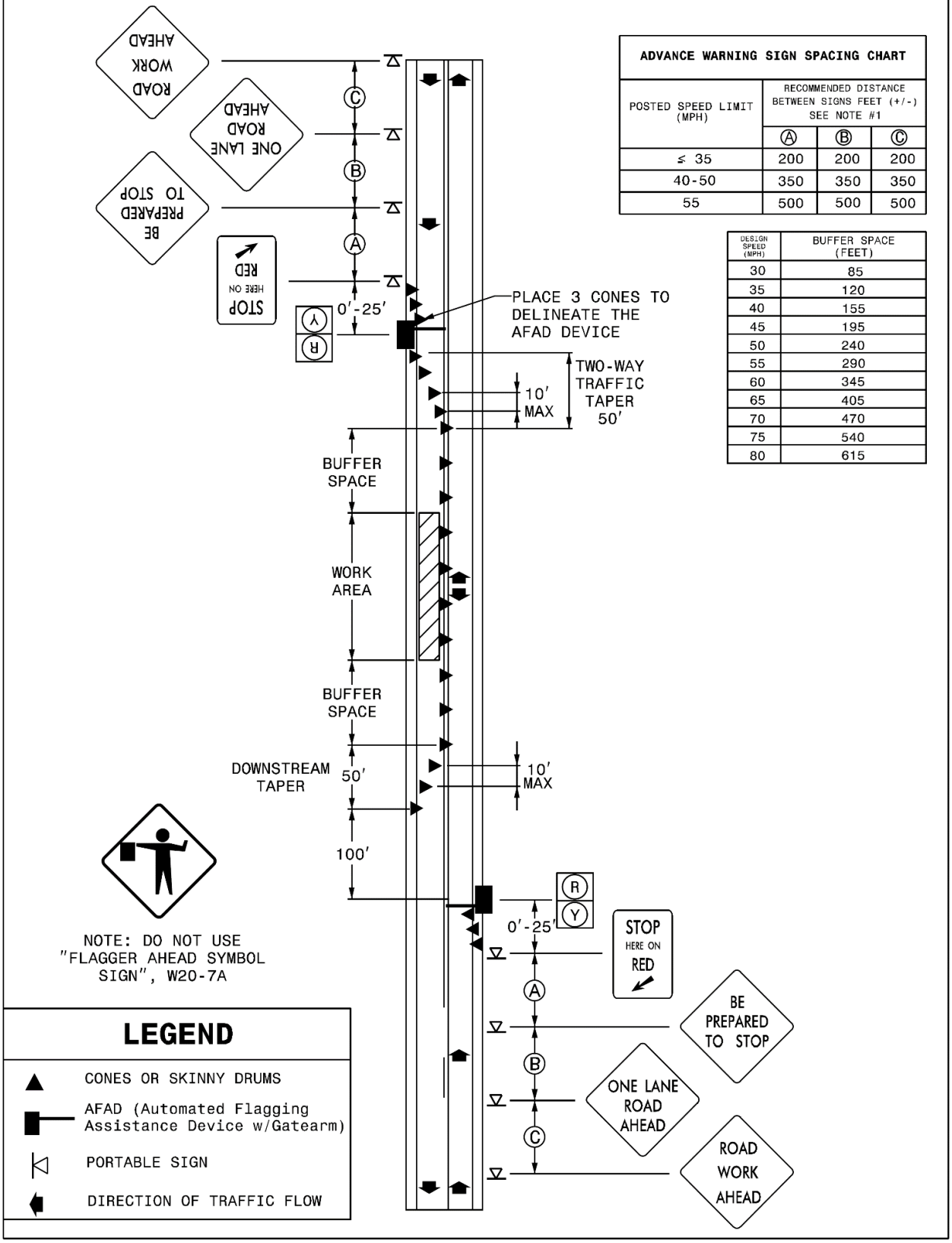
Page 11-14, Article 1150-4, MEASUREMENT AND PAYMENT, add the following after line 24:

Each AFAD or PTS unit will be measured and paid for as *Flaggers* paid by day in accordance with Article 1150-4 of the *Standard Specifications*. Where the pay item for *Flaggers* is not included in the original contract then no separate payment will be made for this item and payment will be included in the lump sum price bid for *Temporary Traffic Control* found elsewhere in this contract. Each approach controlled by AFAD or PTS units will be measured and paid as one flagger, irrespective of the number of devices used. If multiple PTS units are required to control a single approach, these units will collectively be considered as replacing one flagger.

No separate measurement or payment will be made for AFAD or PTS unit operators, as the cost of such including their training and operational costs shall be included in the unit or lump sum price for *Flaggers* or *Temporary Traffic Control*. Such price and payment also includes the

relocation, maintenance, and removal during repair periods of AFAD or PTS units as well as the signal controller, communication, vehicle detection system, traffic signal software of PTS units and any other incidentals necessary to complete the work.

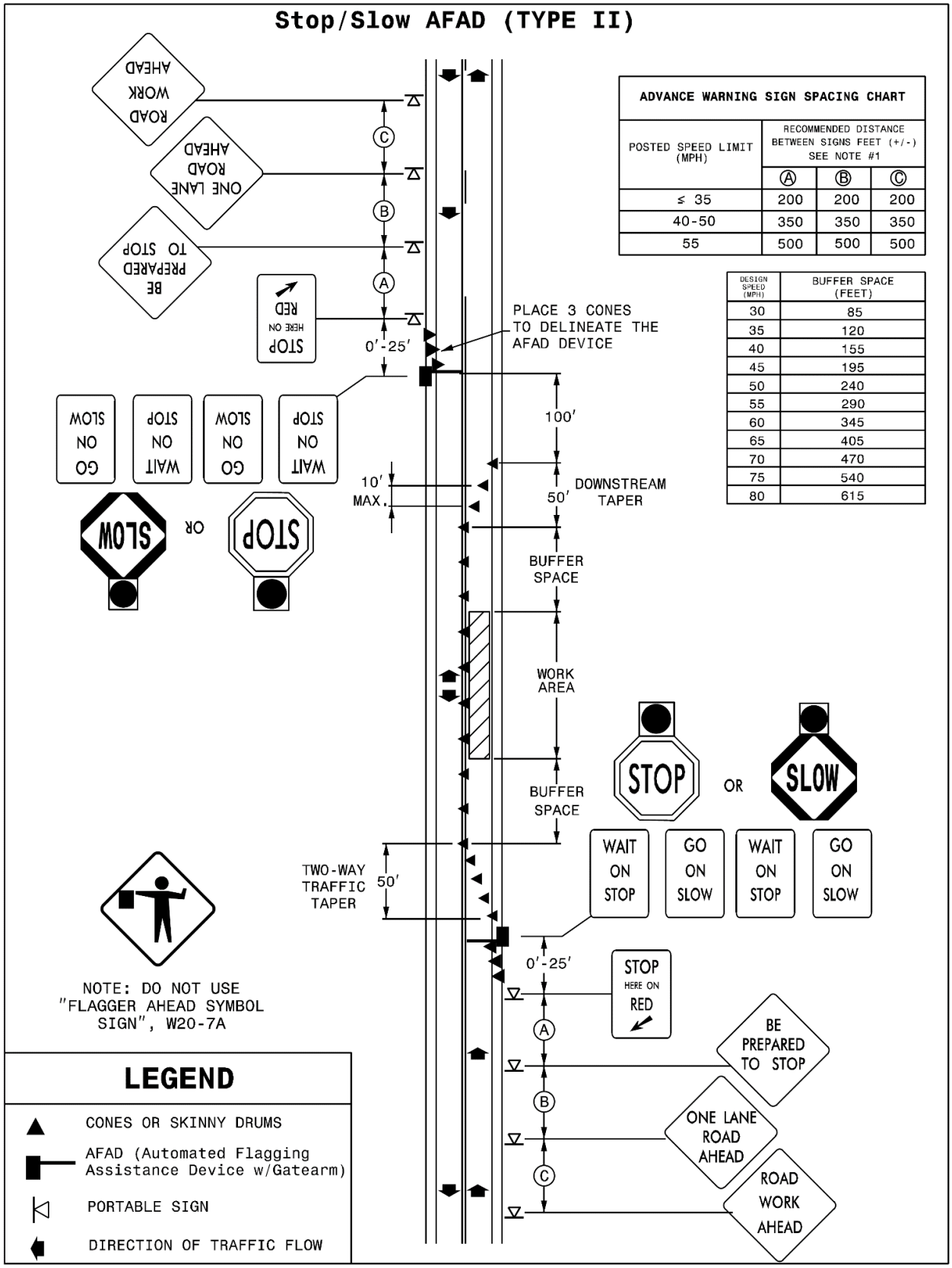
Red/Yellow Lens AFAD (TYPE I)



ADVANCE WARNING SIGN SPACING CHART			
POSTED SPEED LIMIT (MPH)	RECOMMENDED DISTANCE BETWEEN SIGNS FEET (+/-) SEE NOTE #1		
	Ⓐ	Ⓑ	Ⓒ
≤ 35	200	200	200
40-50	350	350	350
55	500	500	500

DESIGN SPEED (MPH)	BUFFER SPACE (FEET)
30	85
35	120
40	155
45	195
50	240
55	290
60	345
65	405
70	470
75	540
80	615

Stop/Slow AFAD (TYPE II)



ADVANCE WARNING SIGN SPACING CHART			
POSTED SPEED LIMIT (MPH)	RECOMMENDED DISTANCE BETWEEN SIGNS FEET (+/-) SEE NOTE #1		
	Ⓐ	Ⓑ	Ⓒ
≤ 35	200	200	200
40-50	350	350	350
55	500	500	500

DESIGN SPEED (MPH)	BUFFER SPACE (FEET)
30	85
35	120
40	155
45	195
50	240
55	290
60	345
65	405
70	470
75	540
80	615

PAVEMENT MARKINGS:

(5-19-26)(Rev. 11-17-26) 1087, 1205 SP12 R04

Revise the *Standard Specifications* as follows:

Page 10-185, Subarticle 1087-2(A) Paint Composition, line 15, replace "TT--P-1952" with "TT--P-1952, Type III".

Page 10-185, Subarticle 1087-2(C) Thermoplastic Composition, lines 28-33, replace the first through third paragraph and the table with the following:

(C) Thermoplastic and Integrated Multipolymer (IMP) Composition

Use thermoplastic alkyd/maleic pavement markings composed of the materials in Table 1087-1A and integrated multipolymer markings composed of the materials in Table 1087-1B.

TABLE 1087-1A
PHYSICAL PROPERTIES
OF THERMOPLASTIC PAVEMENT MARKINGS

Component	By Weight
Alkyd/Maleic Binder	18.0% Min
Premixed Glass Beads (AASHTO M 247 – 50% Type 3 and 50% Type 1)	40.0% Min
Titanium Dioxide Pigment (ASTM D476 Type 2)	10.0% Min. (white) 1.5% Min. (yellow)

TABLE 1087-1B
PHYSICAL PROPERTIES
OF INTEGRATED MULTIPOLYMER (IMP) PAVEMENT MARKINGS

Component	By Weight
Binder	21.0% Min
Premixed Glass Beads (AASHTO M 247 – 50% Type 3 and 50% Type 1)	40.0% Min
Titanium Dioxide Pigment (ASTM D476 Type 2)	10.0% Min. (white only)
Inert Filler	15% Max white / 24% Max Yellow

Use white material that does not contain anatase titanium dioxide pigment. Use yellow material that does not contain any intentionally added lead chromate.

Calcium carbonate and inert fillers may be used by the manufacturer, providing all other qualifications are met.

Page 10-185, Subarticle 1087-2(C) Thermoplastic Composition, line 34, replace "thermoplastic" with "material".

Page 10-185, Subarticle 1087-2(C) Thermoplastic Composition, line 36, replace "alkyd/maleic

binder" with "binder".

Page 10-185, Subarticle 1087-2(C) Thermoplastic Composition, line 38, replace "maleic-modified glycerol of resin" with "rosin ester".

Page 10-186, Subarticle 1087-2(C) Thermoplastic Composition, insert the following paragraph after line 2:

The integrated multipolymer binder shall consist of a mixture of modified rosin ester, polyamide and a copolymer (e.g. EVA) with waxes and/or plasticizers. At least 3% of the total formulation weight shall be 100% polyamide. The binder shall contain no petroleum hydrocarbon resins.

Page 10-186, Subarticle 1087-2(C) Thermoplastic Composition, lines 3, 6, 9 and 11, replace "thermoplastic material" with "material".

Page 10-186, Article 1087-3 COLOR, after line 27, replace "Crystal: Color No. 17886 (White)" with "White: Color No. 17925".

Page 10-186, Subarticle 1087-4(A) Composition, lines 31-34, replace the second paragraph with the following:

Manufacture the beads from 100% recycled or virgin non-pigmented glass from a composition designed to be highly resistant to traffic wear and to the effects of weathering. All intermix and drop-on glass beads shall be manufactured using 100% North American recycled glass cullet, virgin North American glass or a combination of the two.

Page 10-187, Subarticle 1087-4(C) Gradation & Roundness, lines 4-6, replace the first paragraph and table with the following:

Use drop-on and intermixed glass beads in all pavement markings with at least 80% true spheres when tested in accordance with ASTM D1155. Drop-on glass beads for permanent pavement markings shall be high performance glass beads listed on the NCDOT APL. If otherwise specified, or at the direction of the Engineer, other drop-on reflective media may be used on permanent markings. Drop-on glass beads used on any interim or temporary pavement markings shall meet Table 1087-2.

TABLE 1087-2
GLASS BEAD GRADATION REQUIREMENTS

Sieve Size	Gradation Requirements	
	Minimum	Maximum
Passing #20	95%	100%
Retained on #30	5%	20%
Retained on #50	40%	80%
Retained on #80	15%	50%
Passing #80	0%	10%
Retained on #200	0%	5%

Page 10-187, Article 1087-5 PACKAGING FOR SHIPMENT, line 31, replace "Thermoplastic

pavement marking materials" with "Thermoplastic and integrated multipolymer pavement marking materials".

Page 10-188, Subarticle 1087-7(B) Thermoplastic Pavement Marking Material Composition, line 17, replace **"(B) Thermoplastic Pavement Marking Material Composition**" with "**(B) Thermoplastic and Integrated Multipolymer Pavement Marking Material Composition**".

Page 10-188, Subarticle 1087-7(C) Flash Point, line 22, replace "thermoplastic" with "thermoplastic and integrated multipolymer material".

Page 10-188, Subarticle 1087-7(D) Requirements, line 25, replace "thermoplastic material" with "thermoplastic and integrated multipolymer material".

Page 10-189, Subarticle 1087-7(D), after line 15, add the following:

(9) Tensile Elongation

The integrated multipolymer material shall have an elongation of at least 10% when tested in accordance with ASTM D638 (1"x 6", 0.25"/min).

(10) Abrasion Resistance

The integrated multipolymer material shall have no more than 0.40 g weight loss following taber abrasion with CS17 wheels for 1000 cycles with 1 kg weight per ASTM D4060.

Page 10-189, Article 1087-8 MATERIAL CERTIFICATION, lines 22-23, replace the third paragraph with the following:

Reflective media not covered in this, or other specifications must meet AASHTO M 247 Type 3 or 4 and a NCDOT Type 2 Material Certification must be provided.

Page 10-189, Article 1087-8 MATERIAL CERTIFICATION, after line 23, add the following to the table:

Integrated Multipolymer	Type 2 Material Certification and Type 3 Material Certification

Page 12-3, Subarticle 1205-3(F) Surface Preparation and Curing Compound Removal, line 8, add the following as a second sentence of the first paragraph:

Only apply markings to dry clean surfaces.

Page 12-4, Subarticle 1205-3(G)(1) General for all types of Pavement Markings, line 16, replace the first sentence of the eighth paragraph with the following:

Protect the pavement markings until they are track free before exposing them to traffic.

Page 12-4, Subarticle 1205-3(G)(1) General for all types of Pavement Markings, lines 22-24, delete the second sentence of the tenth paragraph.

Page 12-4, Subarticle 1205-3(G)(1) General for all types of Pavement Markings, after line 24, replace "White: Color No. 17886" with "White: Color No. 17295".

Page 12-5, Subarticle 1205-3(I) Removal of Pavement Markings, line 32, add the following as the third sentence of the seventh paragraph:

Before applying integrated multipolymer (IMP) pavement markings over existing thermoplastic pavement markings, remove at least 85% of the oxidized existing thermoplastic.

Page 12-5, Subarticle 1205-3(I) Removal of Pavement Markings, line 35, replace "thermoplastic" with "thermoplastic or IMP".

Page 12-6, Article 1205-4 THERMOPLASTIC, line 3, replace "**1205-4 THERMOPLASTIC**" with **"1205-4 THERMOPLASTIC AND INTEGRATED MULTIPOLYMER (IMP)".**

Page 12-6, Subarticle 1205-4(A) Application Equipment, lines 7, 16, 20, 24, 25, 27 and 29, delete "thermoplastic"

Page 12-6, Subarticle 1205-4(B) Weather Limitations and Seasonal Limitations, line 38, replace "thermoplastic pavement markings" with "thermoplastic or integrated multipolymer pavement markings".

Page 12-6, Subarticle 1205-4(B) Weather Limitations and Seasonal Limitations, line 42, delete "thermoplastic".

Page 12-7, Subarticle 1205-4(C) Application, lines 2, 3, 10, 21 and 31, delete "thermoplastic".

Page 12-7, Subarticle 1205-4(C) Application, after line 17, in Table 1205-2 MINIMUM REFLECTOMETER REQUIREMENTS FOR THERMOPLASTIC replace "Standard Glass Beads" with "High Performance Glass Beads" and for the Reflectivity of White replace "375 mcd/lux/m^2" with "425 mcd/lux/m^2" and Yellow replace "250 mcd/lux/m^2" with "325 mcd/lux/m^2"

Page 12-7, Subarticle 1205-4(C) Application, line 23, replace "thermoplastic pavement marking" with "final pavement marking".

Page 12-7, Subarticle 1205-4(C) Application, after line 32, replace "**TABLE 1205-3 THICKNESS REQUIREMENTS FOR THERMOPLASTIC**" with "**TABLE 1205-3 THICKNESS REQUIREMENTS FOR THERMOPLASTIC AND INTEGRATED MULTIPOLYMER**".

Page 12-9, Subarticle 1205-5(C) Observation Period, before line 1, replace "375 mcd/lux/m^2" with "425 mcd/lux/m^2" and replace "250 mcd/lux/m^2" with "325 mcd/lux/m^2".

Page 12-11, Subarticle 1205-8(C) Application, lines 17-20, replace the first paragraph with the following:

Final pavement marking application of paint shall be placed in 1 application of 30 mils wet and consist of reflective media applied at a rate to immediately obtain the minimum retroreflective values.

Page 12-11, Subarticle 1205-8(C) Application, line 26, delete "15 mil".

Page 12-11, Subarticle 1205-8(C) Application, after line 31, replace Table 1205-6 with the following:

TABLE 1205-6
REFLECTOMETER REQUIREMENTS
FOR PAINT

Item	Color	Reflectivity
Standard Glass Beads	White	225 mcd/lux/m^2
	Yellow	200 mcd/lux/m^2
High Performance Glass Beads	White	425 mcd/lux/m^2
	Yellow	325 mcd/lux/m^2

Page 12-12, Article 1205-10 MEASUREMENT AND PAYMENT, lines 5-7, delete and replace the second sentence of the first paragraph with the following:

In addition, *Paint Pavement Marking Lines* will be paid per linear foot for each 15 mil wet application placed in accordance with Subarticle 1205-8(C) for temporary pavement markings during temporary traffic patterns and in accordance with Subarticle 1205-8(C) final paint pavement marking lines of 1 application of 30 mils wet will be measured and paid as 2 applications of 15 mils wet.

Page 12-12, Article 1205-10 MEASUREMENT AND PAYMENT, lines 12-14, delete and replace the second sentence of the second paragraph with the following:

In addition, *Paint Pavement Marking Symbols* will be paid for each 15 mil wet application placed in accordance with Subarticle 1205-8(C) for temporary pavement markings during temporary traffic patterns and in accordance with Subarticle 1205-8(C) final paint pavement marking symbols of 1 application of 30 mils wet will be measured and paid as 2 applications of 15 mils wet.

Page 12-12, Article 1205-10 MEASUREMENT AND PAYMENT, lines 17-19, delete and replace the third sentence of the third paragraph with the following:

In addition, *Paint Pavement Marking Characters* will be paid for each 15 mil wet application placed in accordance with Subarticle 1205-8(C) for temporary pavement markings during temporary traffic patterns and in accordance with Subarticle 1205-8(C) final paint pavement marking characters of 1 application of 30 mils wet will be measured and paid as 2 applications of 15 mils wet.

Page 12-12, Article 1205-10 MEASUREMENT AND PAYMENT, lines 17-19, replace the second sentence of the ninth paragraph with the following:

No direct payment will be made for the work involved in applying the lines, including but not limited to surface preparation, reapplication of molten pavement marking crossed by a vehicle, removal of all pavement marking materials spilled on the roadway surface, and repair of markings tracked by a vehicle.

Page 12-13, Article 1205-10 MEASUREMENT AND PAYMENT, after line 12, add the following to the pay item and pay unit list:

Pay Item	**Pay Unit**
Integrated Multipolymer Pavement Marking Lines, __", __ mils	Linear Foot
Integrated Multipolymer Pavement Marking Symbols, __ mils	Each
Integrated Multipolymer Pavement Marking Characters, __ mils	Each

COIR FIBER MAT:

(9-16-25) 1629 SP16 R05

Revise the *Standard Specifications* as follows:

Page 16-9, Article 1629-2 MATERIALS, lines 22-24, delete and replace the last paragraph with the following:

Provide #3 or #4 uncoated reinforcing steel anchors, 24 inches in length, bent into a U-shape with a 4-inch diameter bend and a 4-inch straight leg extending from the bend to catch and secure the coir fiber mat.

WATTLE DEVICES:

(1-1-24)(Rev. 12-15-26) 1642 SP16 R10

Revise the *Standard Specifications* as follows:

Page 16-23, Subarticle 1642-2(A) Stakes and Subarticle 1642-2(B) Wattle, lines 1-12, delete and replace with the following:

(A) Stakes

Stakes shall be used as anchors. Provide hardwood stakes a minimum of 2-foot long with a 2 inch x 2 inch nominal square cross section. One end of the stake shall be sharpened or beveled to facilitate driving down into the underlying soil.

(B) Wattle and Wattle Barrier

Wattles shall meet Table 1642-1.

TABLE 1642-1 100% CURLED WOOD (EXCELSIOR) FIBERS - WATTLE	
Property	**Property Value**
Minimum Diameter	12 inches
Minimum Density	2.5 pcf +/- 10%
Net Material	Synthetic
Net Openings	1 inch x 1 inch
Net Configuration	Totally Encased
Minimum Weight	20 lb +/- 10% per 10 foot length

Coir Fiber Wattles shall meet Table 1642-2.

TABLE 1642-2 100% COIR (COCONUT) FIBERS WATTLE	
Property	**Property Value**
Minimum Diameter	12 inches
Minimum Density	3.5 pcf +/- 10%
Net Material	Coir Fiber
Net Openings	2 inch x 2 inch
Net Strength	90 lb
Minimum Weight	2.6 pcf +/- 10%

Wattle Barriers shall meet Table 1642-3.

TABLE 1642-3 100% CURLED WOOD (EXCELSIOR) FIBERS – WATTLE BARRIER	
Property	**Property Value**
Minimum Diameter	18 inches
Minimum Density	2.9 pcf +/- 10%
Net Material	Synthetic
Net Openings	1 inch x 1 inch
Net Configuration	Totally Encased
Minimum Weight	5 pcf +/- 10%

Coir Fiber Wattle Barriers shall meet Table 1642-4.

TABLE 1642-4 100% COIR (COCONUT) FIBERS WATTLE BARRIER	
Property	**Property Value**
Minimum Diameter	18 inches
Minimum Density	5 pcf +/- 10%
Net Material	Coir Fiber
Net Openings	2 inch x 2 inch
Net Strength	90 lb
Minimum Weight	10 pcf +/- 10%

Pages 16-24 & 16-25, Article 1642-5 MEASUREMENT AND PAYMENT, lines 42-47 & lines 1-2, delete and replace with the following:

Wattle will be measured and paid for by the actual number of linear feet of wattles which are installed and accepted. Such price and payment will be full compensation for all work covered by this section, including, but not limited to, furnishing all materials, labor, equipment and incidentals necessary to install the *Wattle*.

Coir Fiber Wattles will be measured and paid for by the actual number of linear feet of coir fiber wattles which are installed and accepted. Such price and payment will be full compensation for all work covered by this section, including, but not limited to, furnishing all materials, labor, equipment and incidentals necessary to install the *Coir Fiber Wattles*.

Wattle Barrier will be measured and paid as the actual number of linear feet of wattle barrier installed and accepted. Such price and payment will be full compensation for all work covered by this provision, including, but not limited to, furnishing all materials, labor, equipment and incidentals necessary to install the *Wattle Barrier*.

Coir Fiber Wattle Barrier will be measured and paid as the actual number of linear feet of coir fiber wattle barrier installed and accepted. Such price and payment will be full compensation for all work covered by this provision, including, but not limited to, furnishing all materials, labor, equipment and incidentals necessary to install the *Coir Fiber Wattle Barrier*.

Page 16-25, Article 1642-5 MEASUREMENT AND PAYMENT, after line 9, delete and replace "___ Wattle Check" with "Wattle".

Page 16-25, Article 1642-5 MEASUREMENT AND PAYMENT, after line 9, delete and replace "___ Wattle Barrier" with "Wattle Barrier".

Page 16-25, Article 1642-5 MEASUREMENT AND PAYMENT, after line 9, add the following:

Pay Item	**Pay Unit**
Coir Fiber Wattle	Linear Foot
Coir Fiber Wattle Barrier	Linear Foot

STANDARD SPECIAL PROVISION
AVAILABILITY OF FUNDS – TERMINATION OF CONTRACTS

(5-20-08)(Rev. 1-16-24) Z-2

General Statute 143C-6-11. (h) Highway Appropriation is hereby incorporated verbatim in this contract as follows:

(h) Amounts Encumbered. – Transportation project appropriations may be encumbered in the amount of allotments made to the Department of Transportation by the Director for the estimated payments for transportation project contract work to be performed in the appropriation fiscal year. The allotments shall be multiyear allotments and shall be based on estimated revenues and shall be subject to the maximum contract authority contained in *General Statute 143C-6-11(c)*. Payment for transportation project work performed pursuant to contract in any fiscal year other than the current fiscal year is subject to appropriations by the General Assembly. Transportation project contracts shall contain a schedule of estimated completion progress, and any acceleration of this progress shall be subject to the approval of the Department of Transportation provided funds are available. The State reserves the right to terminate or suspend any transportation project contract, and any transportation project contract shall be so terminated or suspended if funds will not be available for payment of the work to be performed during that fiscal year pursuant to the contract. In the event of termination of any contract, the contractor shall be given a written notice of termination at least 60 days before completion of scheduled work for which funds are available. In the event of termination, the contractor shall be paid for the work already performed in accordance with the contract specifications.

Payment will be made on any contract terminated pursuant to the special provision in accordance with Subarticle 108-13(D) of the *Standard Specifications*.

STANDARD SPECIAL PROVISION
NCDOT GENERAL SEED SPECIFICATION FOR SEED QUALITY

(5-17-11) Z-3

Seed shall be sampled and tested by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory. When said samples are collected, the vendor shall supply an independent laboratory report for each lot to be tested. Results from seed so sampled shall be final. Seed not meeting the specifications shall be rejected by the Department of Transportation and shall not be delivered to North Carolina Department of Transportation warehouses. If seed has been delivered it shall be available for pickup and replacement at the supplier's expense.

Any re-labeling required by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory, that would cause the label to reflect as otherwise specified herein shall be rejected by the North Carolina Department of Transportation.

Seed shall be free from seeds of the noxious weeds Johnsongrass, Balloonvine, Jimsonweed, Witchweed, Itchgrass, Serrated Tussock, Showy Crotalaria, Smooth Crotalaria, Sicklepod, Sandbur, Wild Onion, and Wild Garlic. Seed shall not be labeled with the above weed species on the seed analysis label. Tolerances as applied by the Association of Official Seed Analysts will NOT be allowed for the above noxious weeds except for Wild Onion and Wild Garlic.

Tolerances established by the Association of Official Seed Analysts will generally be recognized. However, for the purpose of figuring pure live seed, the found pure seed and found germination percentages as reported by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory will be used. Allowances, as established by the NCDOT, will be recognized for minimum pure live seed as listed on the following pages.

The specifications for restricted noxious weed seed refers to the number per pound as follows:

Restricted Noxious **Weed**	Limitations per Lb. Of Seed	Restricted Noxious **Weed**	Limitations per Lb. of Seed
Blessed Thistle	4 seeds	Cornflower (Ragged Robin)	27 seeds
Cocklebur	4 seeds	Texas Panicum	27 seeds
Spurred Anoda	4 seeds	Bracted Plantain	54 seeds
Velvetleaf	4 seeds	Buckhorn Plantain	54 seeds
Morning-glory	8 seeds	Broadleaf Dock	54 seeds
Corn Cockle	10 seeds	Curly Dock	54 seeds
Wild Radish	12 seeds	Dodder	54 seeds
Purple Nutsedge	27 seeds	Giant Foxtail	54 seeds
Yellow Nutsedge	27 seeds	Horsenettle	54 seeds
Canada Thistle	27 seeds	Quackgrass	54 seeds
Field Bindweed	27 seeds	Wild Mustard	54 seeds
Hedge Bindweed	27 seeds		

Seed of Pensacola Bahiagrass shall not contain more than 7% inert matter, Kentucky Bluegrass, Centipede and Fine or Hard Fescue shall not contain more than 5% inert matter whereas a maximum of 2% inert matter will be allowed on all other kinds of seed. In addition, all seed shall

not contain more than 2% other crop seed nor more than 1% total weed seed. The germination rate as tested by the North Carolina Department of Agriculture shall not fall below 70%, which includes both dormant and hard seed. Seed shall be labeled with not more than 7%, 5% or 2% inert matter (according to above specifications), 2% other crop seed and 1% total weed seed.

Exceptions may be made for minimum pure live seed allowances when cases of seed variety shortages are verified. Pure live seed percentages will be applied in a verified shortage situation. Those purchase orders of deficient seed lots will be credited with the percentage that the seed is deficient.

FURTHER SPECIFICATIONS FOR EACH SEED GROUP ARE GIVEN BELOW:

Minimum 85% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 83% pure live seed will not be approved.

Sericea Lespedeza
Oats (seeds)

Minimum 80% pure live seed; maximum 1% total weed seed; maximum 2% total other crop; maximum 144 restricted noxious weed seed per pound. Seed less than 78% pure live seed will not be approved.

Tall Fescue (all approved varieties)
Kobe Lespedeza
Korean Lespedeza
Weeping Lovegrass
Carpetgrass
Bermudagrass
Browntop Millet
German Millet – Strain R
Clover – Red/White/Crimson

Minimum 78% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 76% pure live seed will not be approved.

Common or Sweet Sundangrass

Minimum 76% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 74% pure live seed will not be approved.

Rye (grain; all varieties)
Kentucky Bluegrass (all approved varieties)
Hard Fescue (all approved varieties)
Shrub (bicolor) Lespedeza

Minimum 70% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 noxious weed seed per pound. Seed less than 70% pure live seed will not be approved.

Centipedegrass
Crownvetch
Pensacola Bahiagrass
Creeping Red Fescue
Japanese Millet
Reed Canary Grass
Zoysia

Minimum 70% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 5% inert matter; maximum 144 restricted noxious weed seed per pound.

Barnyard Grass
Big Bluestem
Little Bluestem
Bristly Locust
Birdsfoot Trefoil
Indiangrass
Orchardgrass
Switchgrass
Yellow Blossom Sweet Clover

STANDARD SPECIAL PROVISION
ERRATA

(1-16-24)(Rev. 12-15-26) Z-4

Revise the *2024 Standard Specifications* as follows:

Division 1

Page 1-1, Article 101-2 ABBREVIATIONS, line 25, replace "American Wood-Preservers' Association" with "American Wood Protection Association".

Page 1-18, Article 102-10 BID BOND OR BID DEPOSIT, line 26, replace " Subarticle 102-8(A)(8)(b)" with "Subarticle 102-8(A)(12)(b)".

Page 1-20, Subarticle 102-14(A) State Funded Projects, line 3, replace "$30,000" with "$40,000".

Page 1-20, Subarticle 102-14(B) Federal Aid Projects, line 7, replace "$30,000" with "$40,000".

Page 1-36, Subarticle 104-12(B) Evaluation of Proposals, line 21, replace "Design-Build Unit" with "Alternative Delivery Unit".

Page 1-36, Subarticle 104-12(D) Preliminary Review, line 37, replace "Design-Build Unit" with "Alternative Delivery Unit".

Page 1-37, Subarticle 104-12(E) Final Proposal, line 3, replace "Design-Build Unit" with "Alternative Delivery Unit".

Page 1-37, Subarticle 104-12(F) Design-Build VEPs, line 36, replace "Design-Build Unit" with "Alternative Delivery Unit".

Page 1-38, Subarticle 104-12(G) Modifications, line 1, replace "Design-Build Unit" with "Alternative Delivery Unit".

Division 3

Page 3-5, Article 305-2 MATERIALS, after line 16, replace " 1032-3(A)(7)" with "1032-3" and add the item "Galvanized Corrugated Steel Pipe" with Section "1032-3".

Page 3-6, Article 310-2 MATERIALS, after line 9, add the item "Galvanized Corrugated Steel Pipe" with Section "1032-3".

Division 6

Page 6-15, Article 610-1 DESCRIPTION, line 20, replace "The work includes" with "The work includes, but is not limited to,".

Page 6-15, Article 610-1 DESCRIPTION, line 22, replace “applying the tack coat as specified.” with “applying the tack coat in accordance with Section 605.”.

Page 6-30, Article 610-14 DENSITY ACCEPTANCE, line 39, replace “QC process.” with “QC process in accordance with Section 609.”.

Page 6-31, Article 610-16 MEASUREMENT AND PAYMENT, line 13, replace "*Hot Mix Asphalt Pavement*” with “*Asphalt Concrete _____ Course, Type _____*”.

Page 6-41, Article 657-3 CONSTRUCTION METHODS, line 11, delete "(air-jacketed flow)”.

Page 6-50, Subarticle 661-4(A) Equipment, lines 4-7, replace the first two sentences of the seventh paragraph with the following:

When an erected fixed stringline is utilized for longitudinal profile and cross slope control furnish and erect the necessary guide line for the equipment.

Division 7

Page 7-18, Subarticle 710-10(A) General, lines 7-8, delete “for *Surface Testing Concrete Pavement*” from the last paragraph.

Division 8

Page 8-27, Article 846-1 DESCRIPTION, line 8, delete “4 inch” from the first paragraph.

Division 9

Page 9-17, Article 904-4 MEASUREMENT AND PAYMENT, prior to line 1, replace " Sign Erection, Relocate Type (Ground Mounted)” with “Sign Erection, Relocate Type ___ (Ground Mounted)”.

Division 10

Page 10-51, Article 1024-4 WATER, prior to line 1, delete the “unpopulated blank row” in Table 1024-2 between “Time of set, deviation from control” and “Chloride Ion Content, Max.”.

Page 10-170, Subarticle 1081-1(C) Requirements, line 4, replace "maximum” with “minimum”.

Division 11

Page 11-15, Article 1160-4 MEASUREMENT AND PAYMENT, line 24, replace “Where barrier units are moved more than one” with “Where barrier units are moved more than once”.

Division 15

Page 15-10, Article 1515-4 MEASUREMENT AND PAYMENT, lines 11, replace " All piping" with "All labor, the manhole, other materials, excavation, backfilling, piping".

Division 16

Page 16-14, Article 1633-5 MEASUREMENT AND PAYMENT, line 20-24 and prior to line 25, delete and replace with the following " *Flocculant* will be measured and paid in accordance with Article 1642-5 applied to the temporary rock silt checks."

Page 16-3, Article 1609-2 MATERIALS, after line 26, replace "Type 4" with "Type 4a".

Page 16-25, Article 1644-2 MATERIALS, after line 22, replace "Type 4" with "Type 4a".

Page 16-27, Article 1644-5 MEASUREMENT AND PAYMENT, line 31, replace "Article 1630-4" with "Article 1630-3".

Division 17

Page 17-15, Article 1715-4 MEASUREMENT AND PAYMENT, line 23, delete and replace "1.25" with "1-1/4".

Page 17-15, Article 1715-4 MEASUREMENT AND PAYMENT, line 24, delete and replace ")(1.25" with ", 1-1/4".

STANDARD SPECIAL PROVISION

PLANT AND PEST QUARANTINES

(Imported Fire Ant, Guava Root Knot Nematode, Spongy Moth (formerly known as gypsy moth), Witchweed, Cogon Grass, And Any Other Regulated Noxious Weed or Plant Pest)

(3-18-03)(Rev. 3-18-25) Z-04a

Within Quarantined Area

This project may be within a county regulated for plant and/or pests. If the project or any part of the Contractor's operations is located within a quarantined area, thoroughly clean all equipment prior to moving out of the quarantined area. Comply with federal/state regulations by obtaining a certificate or limited permit for any regulated article moving from the quarantined area.

Originating in a Quarantined County

Obtain a certificate or limited permit issued by the N.C. Department of Agriculture/United States Department of Agriculture. Have the certificate or limited permit accompany the article when it arrives at the project site.

Contact

Contact the N.C. Department of Agriculture/United States Department of Agriculture at 1-800-206-9333, 919-707-3730, or *https://www.ncagr.gov/divisions/plant-industry/plant-protection/plant-industry-plant-pest-quarantines* to determine those specific project sites located in the quarantined area or for any regulated article used on this project originating in a quarantined county.

Regulated Articles Include

1. Soil, sand, gravel, compost, peat, humus, muck, and decomposed manure, separately or with other articles. This includes movement of articles listed above that may be associated with cut/waste, ditch pulling, and shoulder cutting.
2. Plants with roots including grass sod.
3. Plant crowns and roots.
4. Bulbs, corms, rhizomes, and tubers of ornamental plants.
5. Hay, straw, fodder, and plant litter of any kind.
6. Clearing and grubbing debris.
7. Used agricultural cultivating and harvesting equipment.
8. Used earth-moving equipment.
9. Any other products, articles, or means of conveyance of any character, if determined by an inspector present a hazard of spreading imported fire ant, guava root knot nematode, spongy moth (formerly known as gypsy moth), witchweed, cogon grass, or other regulated noxious weed or plant pest.

STANDARD SPECIAL PROVISION

MINIMUM WAGES

(7-21-09) Z-5

FEDERAL: The Fair Labor Standards Act provides that with certain exceptions every employer shall pay wages at the rate of not less than SEVEN DOLLARS AND TWENTY FIVE CENTS ($7.25) per hour.

STATE: The North Carolina Minimum Wage Act provides that every employer shall pay to each of his employees, wages at a rate of not less than SEVEN DOLLARS AND TWENTY FIVE CENTS ($7.25) per hour.

The minimum wage paid to all skilled labor employed on this contract shall be SEVEN DOLLARS AND TWENTY FIVE CENTS ($7.25) per hour.

The minimum wage paid to all intermediate labor employed on this contract shall be SEVEN DOLLARS AND TWENTY FIVE CENTS ($7.25) per hour.

The minimum wage paid to all unskilled labor on this contract shall be SEVEN DOLLARS AND TWENTY FIVE CENTS ($7.25) per hour.

This determination of the intent of the application of this act to the contract on this project is the responsibility of the Contractor.

The Contractor shall have no claim against the Department of Transportation for any changes in the minimum wage laws, Federal or State. It is the responsibility of the Contractor to keep fully informed of all Federal and State Laws affecting his contract.

STANDARD SPECIAL PROVISION

TITLE VI AND NONDISCRIMINATION:

(6-28-77)(Rev 1/16/2024) Z-6

The North Carolina Department of Transportation is committed to carrying out the U.S. Department of Transportation's policy of ensuring nondiscrimination in the award and administration of contracts.

The provisions of this section related to United States Department of Transportation (US DOT) Order 1050.2A, Title 49 Code of Federal Regulations (CFR) part 21, 23 United States Code (U.S.C.) 140 and 23 CFR part 200 (or 49 CFR 303, 49 U.S.C. 5332 or 49 U.S.C. 47123) are applicable to all North Carolina Department of Transportation (NCDOT) contracts and to all related subcontracts, material supply, engineering, architectural and other service contracts, regardless of dollar amount. Any Federal provision that is specifically required not specifically set forth is hereby incorporated by reference.

(1) **Title VI Assurances (USDOT Order 1050.2A, Appendix A)**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

(a) Compliance with Regulations

The contractor (hereinafter includes consultants) shall comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

(b) Nondiscrimination

The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

(c) Solicitations for Subcontractors, Including Procurements of Materials and Equipment

In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Nondiscrimination on the grounds of race, color, or national origin.

(d) Information and Reports

The contractor shall provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and shall permit access to its books,

records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the FHWA to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor shall so certify to the Recipient or the FHWA, as appropriate, and shall set forth what efforts it has made to obtain the information.

(e) Sanctions for Noncompliance:

In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it and/or the FHWA may determine to be appropriate, including, but not limited to:

(i) Withholding payments to the contractor under the contract until the contractor complies; and/or

(ii) Cancelling, terminating, or suspending a contract, in whole or in part.

(f) Incorporation of Provisions

The contractor shall include the provisions of paragraphs (a) through (f) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor shall take action with respect to any subcontract or procurement as the Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

(2) **Title VI Nondiscrimination Program (23 CFR 200.5(p))**

The North Carolina Department of Transportation (NCDOT) has assured the USDOT that, as a condition to receiving federal financial assistance, NCDOT will comply with Title VI of the Civil Rights Act of 1964 and all requirements imposed by Title 49 CFR part 21 and related nondiscrimination authorities to ensure that no person shall, on the ground of race, color, national origin, limited English proficiency, sex, age, or disability (including religion/creed or income-level, where applicable), be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any programs, activities, or services conducted or funded by NCDOT. Contractors and other organizations under contract or agreement with NCDOT must also comply with Title VI and related authorities, therefore:

(a) During the performance of this contract or agreement, contractors (e.g., subcontractors, consultants, vendors, prime contractors) are responsible for complying with NCDOT's Title VI Program. Contractors are not required to prepare or submit Title VI Programs. To comply with this section, the prime contractor shall:

1. Post NCDOT's Notice of Nondiscrimination and the Contractor's own Equal Employment Opportunity (EEO) Policy in conspicuous locations accessible to all employees, applicants and subcontractors on the jobsite.

2. Physically incorporate the required Title VI clauses into all subcontracts on federally-assisted and state-funded NCDOT projects, and ensure inclusion by subcontractors into all lower-tier subcontracts.

3. Required Solicitation Language. The Contractor shall include the following notification in all solicitations for bids and requests for work or material, regardless of funding source:

   "The North Carolina Department of Transportation, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 US.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award. In accordance with other related nondiscrimination authorities, bidders and contractors will also not be discriminated against on the grounds of sex, age, disability, low-income level, creed/religion, or limited English proficiency in consideration for an award."

4. Physically incorporate the FHWA-1273, in its entirety, into all subcontracts and subsequent lower tier subcontracts on Federal-aid highway construction contracts only.

5. Provide language assistance services (i.e., written translation and oral interpretation), free of charge, to LEP employees and applicants. Contact NCDOT OCR for further assistance, if needed.

6. For assistance with these Title VI requirements, contact the NCDOT Title VI Nondiscrimination Program at 1-800-522-0453.

(b) Subrecipients (e.g. cities, counties, LGAs, planning organizations) may be required to prepare and submit a Title VI Plan to NCDOT, including Title VI Assurances and/or agreements. Subrecipients must also ensure compliance by their contractors and subrecipients with Title VI. (23 CFR 200.9(b)(7))

(c) If reviewed or investigated by NCDOT, the contractor or subrecipient agrees to take affirmative action to correct any deficiencies found within a reasonable time period, not to exceed 90 calendar days, unless additional time is granted by NCDOT. (23 CFR 200.9(b)(15))

(d) The Contractor is responsible for notifying subcontractors of NCDOT's External Discrimination Complaints Process.

1. Applicability

   Title VI and related laws protect participants and beneficiaries (e.g., members of the public and contractors) from discrimination by NCDOT employees, subrecipients and contractors, regardless of funding source.

2. Eligibility

   Any person—or class of persons—who believes he/she has been subjected to discrimination based on race, color, national origin, Limited English Proficiency (LEP), sex, age, or disability (and religion in the context of employment, aviation, or transit) may file a written complaint. The law also prohibits intimidation or retaliation of any sort.

3. Time Limits and Filing Options

   Complaints may be filed by the affected individual(s) or a representative and must be filed no later than 180 calendar days after the following:

   (i) The date of the alleged act of discrimination; or

   (ii) The date when the person(s) became aware of the alleged discrimination; or

   (iii) Where there has been a continuing course of conduct, the date on which that conduct was discontinued or the latest instance of the conduct.

   Title VI and related discrimination complaints may be submitted to the following entities:

   - North Carolina Department of Transportation, Office of Civil Rights, Title VI Program, 1511 Mail Service Center, Raleigh, NC 27699-1511; toll free 1-800-522-0453
   - Federal Highway Administration, North Carolina Division Office, 310 New Bern Avenue, Suite 410, Raleigh, NC 27601, 919-747-7010
   - US Department of Transportation, Departmental Office of Civil Rights, External Civil Rights Programs Division, 1200 New Jersey Avenue, SE, Washington, DC 20590; 202-366-4070

4. Format for Complaints

   Complaints must be in writing and signed by the complainant(s) or a representative, and include the complainant's name, address, and telephone number. Complaints received by fax or e-mail will be acknowledged and processed. Allegations received by telephone will be reduced to writing and provided to the complainant for confirmation or revision before processing. Complaints will be accepted in other languages, including Braille.

5. Discrimination Complaint Form

   Contact NCDOT Civil Rights to receive a full copy of the Discrimination Complaint Form and procedures.

6. Complaint Basis

   Allegations must be based on issues involving race, color, national origin (LEP), sex, age, disability, or religion (in the context of employment, aviation or transit). "Basis" refers to the complainant's membership in a protected group category.

TABLE 103-1
COMPLAINT BASIS

Protected Categories	Definition	Examples	Applicable Nondiscrimination Authorities
Race and Ethnicity	An individual belonging to one of the accepted racial groups; or the perception, based usually on physical characteristics that a person is a member of a racial group	Black/African American, Hispanic/Latino, Asian, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, White	Title VI of the Civil Rights Act of 1964; 49 CFR Part 21; 23 CFR 200; 49 U.S.C. 5332(b); 49 U.S.C. 47123. *(Executive Order 13166)*
Color	Color of skin, including shade of skin within a racial group	Black, White, brown, yellow, etc.	
National Origin *(Limited English Proficiency)*	Place of birth. Citizenship is not a factor. (*Discrimination based on language or a person's accent is also covered)*	Mexican, Cuban, Japanese, Vietnamese, Chinese	
Sex	Gender. The sex of an individual. *Note:* Sex under this program does not include sexual orientation.	Women and Men	1973 Federal-Aid Highway Act; 49 U.S.C. 5332(b); 49 U.S.C. 47123.
Age	Persons of any age	21-year-old person	Age Discrimination Act of 1975 49 U.S.C. 5332(b); 49 U.S.C. 47123.
Disability	Physical or mental impairment, permanent or temporary, or perceived.	Blind, alcoholic, para-amputee, epileptic, diabetic, arthritic	Section 504 of the Rehabilitation Act of 1973; Americans with Disabilities Act of 1990
Religion (in the context of employment) *(Religion/ Creed in all aspects of any aviation or transit-related construction)*	An individual belonging to a religious group; or the perception, based on distinguishable characteristics that a person is a member of a religious group. In practice, actions taken as a result of the moral and ethical beliefs as to what is right and wrong, which are sincerely held with the strength of traditional religious views. ***Note:*** Does not have to be associated with a recognized religious group or church; if an individual sincerely holds to the belief, it is a protected religious practice.	Muslim, Christian, Sikh, Hindu, etc.	Title VII of the Civil Rights Act of 1964; 23 CFR 230; FHWA-1273 Required Contract Provisions. *(49 U.S.C. 5332(b);* *49 U.S.C. 47123)*

(3) **Pertinent Nondiscrimination Authorities**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest agrees to comply with the following non-discrimination statutes and authorities, including, but not limited to:

(a) Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.

(b) The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

(c) Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);

(d) Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability) and 49 CFR Part 27;

(e) The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);

(f) Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);

(g) The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

(h) Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;

(i) The Federal Aviation Administration's Nondiscrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

(j) Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

(k) Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);

(l) Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

(m) Title VII of the Civil Rights Act of 1964 (42 U.S.C. § 2000e et seq., Pub. L. 88-352), (prohibits employment discrimination on the basis of race, color, religion, sex, or national origin).

(4) **Additional Title VI Assurances**

***The following Title VI Assurances (Appendices B, C and D) shall apply, as applicable*

(a) Clauses for Deeds Transferring United States Property (1050.2A, Appendix B)

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4.

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that the North Carolina Department of Transportation (NCDOT) will accept title to the lands and maintain the project constructed thereon in accordance with the North Carolina General Assembly, the Regulations for the Administration of the Federal-Aid Highway Program, and the policies and procedures prescribed by the Federal Highway Administration of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the NCDOT all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto the North Carolina Department of Transportation (NCDOT) and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the NCDOT, its successors and assigns.
The NCDOT, in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [,] [and]* (2) that the NCDOT will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended [, and (3) that in the event of breach of any of the above-mentioned nondiscrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation and its assigns as such interest existed prior to this instruction].*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.)

(b) Clauses for Transfer of Real Property Acquired or Improved Under the Activity, Facility, or Program (1050.2A, Appendix C)

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the North Carolina Department of Transportation (NCDOT) pursuant to the provisions of Assurance 7(a):

1. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:

   (i.) In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.

2. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Nondiscrimination covenants, the NCDOT will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued. *

3. With respect to a deed, in the event of breach of any of the above Nondiscrimination covenants, the NCDOT will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of the NCDOT and its assigns. *

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

(c) Clauses for Construction/Use/Access to Real Property Acquired Under the Activity, Facility or Program (1050.2A, Appendix D)

The following clauses will be included in deeds, licenses, permits, or similar instruments/ agreements entered into by the North Carolina Department of Transportation (NCDOT) pursuant to the provisions of Assurance 7(b):

1. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, set forth in this Assurance.
2. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non¬ discrimination covenants, the NCDOT will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued. *
3. With respect to deeds, in the event of breach of any of the above Nondiscrimination covenants, the NCDOT will there upon revert to and vest in and become the absolute property of the NCDOT and its assigns. *

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

STANDARD SPECIAL PROVISION

ON-THE-JOB TRAINING

(10-16-07) (Rev. 6-16-26) Z-10

Description

The North Carolina Department of Transportation administers a custom version of the Federal On-the-Job Training (OJT) Program, commonly referred to as the Alternative OJT Program. All Contractors will be automatically placed in the Alternative OJT Program.

The Alternate OJT Program will allow a Contractor to train employees on Federal, State and privately funded projects located in North Carolina. However, priority shall be given to training employees on NCDOT Federal-Aid funded projects.

On the Job Training shall meet the requirements of 23 CFR 230.107 (b), 23 USC – Section 140, this special provision and the NCDOT On-the-Job Training Program Manual.

Minorities and Women

Developing, training and upgrading of minorities and women toward journeyman level status is a primary objective of this special provision. Accordingly, the Contractor shall make every effort to enroll minority and women as trainees to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

Assigning Training Goals

The Department, through the OJT Program Unit, will assign annual training goals based on the Contractor's activity over the past three years' on federal projects with the Department. At the beginning of each year, all eligible Contractors will be contacted by the Department to determine the number of trainees that will be assigned for the upcoming calendar year. At that time, the Contractor shall enter into an agreement with the Department to implement a self-imposed on-the-job training program for the calendar year. This agreement will specify the annual training goals agreed upon by both parties. The number of training assignments may range from 1 to 15 per Contractor per calendar year, unless a higher number is agreed to by the Contractor. The Contractor shall sign an agreement committing to fulfill their annual goal for the year.

Training Classifications

The Contractor shall provide on-the-job training aimed at developing full journeyman level workers in the construction craft/operator positions.

The Department has established common training classifications and their respective training requirements that may be used by the Contractors. However, the classifications established are not all-inclusive. Where the training is oriented toward construction applications, training will be allowed in lower-level management positions such as office engineers and estimators. Contractors shall submit new classifications for specific job functions that their employees are performing.

The Department will review and recommend for acceptance to FHWA the new classifications proposed by contractors, if applicable. New classifications shall meet the following requirements:

Proposed training classifications are reasonable and realistic based on the job skill classification needs, and

The number of training hours specified in the training classification is consistent with common practices and provides enough time for the trainee to obtain journeyman level status.

The Contractor may allow trainees to be trained by a subcontractor provided that the Contractor retains primary responsibility for meeting the training and this special provision is made applicable to the subcontract. However, only the Contractor will receive credit towards the annual goal for the trainee.

Where feasible, 25 percent of trainees in each occupation shall be in their first year of training. The number of trainees shall be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journeyman level status or in which they have been employed as a journeyman.

Records and Reports

The Contractor shall maintain enrollment, monthly and completion reports documenting company compliance under these contract documents. These documents and any other information as requested shall be submitted to the OJT Program Manager.

Upon completion and graduation of the program, the Contractor shall provide each trainee with a certification Certificate showing the type and length of training satisfactorily completed.

Trainee Interviews

All trainees enrolled in the program will receive at minimum an initial and Trainee/Post graduate interview conducted by the OJT program staff.

Trainee Wages

Contractors shall compensate trainees on a graduating pay scale based upon a percentage of the prevailing minimum journeyman wages (Davis-Bacon Act). Minimum pay shall be as follows:

60 percent	of the journeyman wage for the first half of the training period
75 percent	of the journeyman wage for the third quarter of the training period
90 percent	of the journeyman wage for the last quarter of the training period

In no instance shall a trainee be paid less than the local minimum wage. The Contractor shall adhere to the minimum hourly wage rate that will satisfy both the NC Department of Labor (NCDOL) and the Department.

Achieving or Failing to Meet Training Goals

The Contractor will be credited for each trainee currently enrolled or becomes enrolled in an approved program and who receives training for at least 50 percent of the specific program requirement. Trainees will be allowed to be transferred between projects if required by the Contractor's scheduled workload to meet training goals.

If a Contractor fails to attain their training assignments for the calendar year, they may be taken off the NCDOT's Bidders List.

Measurement and Payment

No compensation will be made for providing required training in accordance with these contract documents.

WORK ZONE TRAFFIC CONTROL

Project Special Provisions
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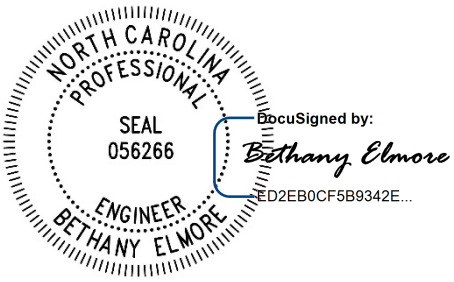


TEMPORARY TRAFFIC CONTROL
(9/1/2021) (10/13/2023) (Rev. 12/17/2024)

General Requirements

Maintain traffic on all roads in accordance with Divisions 10, 11 and 12 of the *NCDOT Standard Specifications* and the following provisions:

Install Work Zone Advance Warning Signs when work is within 40 feet from the edge of the travel lane in accordance with Standard Drawing No. 1101.01 of the *NCDOT Roadway Standard Drawings* prior to beginning any other work. If signs are installed more than 3 calendar days prior to the beginning of work, cover the signs until the work begins. Install each work zone advance warning sign separately and not on the same post or stand with any other sign.

When personnel and/or equipment are working within 15 feet of an open travel lane, close the nearest open shoulder using Standard Drawing No. 1101.04 of the *NCDOT Roadway Standard Drawings* unless the work area is protected by barrier or guardrail or a lane closure is installed.

When personnel and/or equipment are working within 5 feet of an open travel lane of an undivided facility, close the nearest open travel lane using Standard Drawing No. 1101.02 of the *NCDOT Roadway Standard Drawings* unless the work area is protected by barrier or guardrail.

When personnel and/or equipment are working within 10 feet of an open travel lane of a divided facility, close the nearest open travel lane using Standard Drawing No. 1101.02 of the *NCDOT Roadway Standard Drawings*, unless the work area is protected by barrier or guardrail.

When personnel and/or equipment are working within a lane of travel of an undivided or divided facility, close the lane using Standard Drawing No. 1101.02 of the *NCDOT Roadway Standard Drawings* or as directed by the Engineer.

Conduct the work so that all personnel and/or equipment remain within the closed travel lane. Perform work only when weather and visibility conditions allow safe operations as directed by the Engineer.

Do not work simultaneously within 15 feet on both sides of an open travel way, ramp, or loop within the same location, unless protected with guardrail or barrier.

Remove lane closure devices from the lane when work is not being performed behind the lane closure or when a lane closure is no longer needed or as directed by the Engineer.

At the discretion of the Contractor, automated flagging assistance devices (AFAD) or portable traffic signals (PTS) may be used to assist, supplement, or replace human flaggers in accordance with the *Flaggers* provision found elsewhere in this contract.

Temporary Traffic Control (TTC)

Refer to Standard Drawing No. 1101.02, 1101.03, 1101.04, 1101.11, 1110.01, 1110.02, 1115.01, 1130.01, 1135.01, 1145.01, 1150.01, 1165.01, and 1180.01 of the *NCDOT Roadway Standard Drawings* when closing a lane of travel or shoulder in the work zone.

Notify the Engineer 30 calendar days prior to any traffic pattern alteration.

Ensure all necessary signing is in place prior to altering any traffic pattern.

When lane closures are not in effect, space channelizing devices in work areas no greater in feet than twice the posted speed limit (MPH), except 10 feet on-center in radii, and 3 feet off the edge of an open travelway. Refer to *NCDOT Standard Specifications* Sections 1130 (Drums), 1135 (Cones), and 1180 (Skinny Drums) for additional requirements.

Place additional sets of three channelizing devices (Drums, Cones, or Skinny Drums) perpendicular to the edge of travelway on 100 to 500 feet centers, as directed by the Engineer, when unopened lanes are closed to traffic.

Place Type III Barricades with "ROAD CLOSED" sign R11-2 attached, of sufficient length to close the entire roadway.

Install black on orange "DIP" (W8-2) and/or "BUMP" (W8-1) signs in advance of the uneven area in accordance with Standard Drawing 1101.11, or as directed by the Engineer.

Pavement Edge Drop Off Requirements

Backfill at a 6:1 slope up to the edge and elevation of existing pavement in areas adjacent to an opened travel lane that has an edge of pavement drop-off as follows:

- Backfill drop-offs that exceed 2 inches on roadways with posted speed limits of 45 mph or greater.
- Backfill drop-offs that exceed 3 inches on roadways with posted speed limits less than 45 mph.
- Backfill with suitable compacted material, as approved by the Engineer, at no expense to

the department.

Do not exceed a difference of 2 inches in elevation between open lanes of traffic for nominal lifts of 1.5 inches. Install advance warning “Uneven Lanes" signs (W8-11) 500 feet in advance and a minimum of every half mile throughout the uneven area.

The following options are available during milling operations on two-way, two-lane facilities when the entire roadway or entire lane is to be milled:

- Mill a single lane and pave back by the end of each work day.
- Mill the entire width of roadway and pave back within 72 hours.

The following options are available during milling operations on multi-lane facilities when all lanes or a single lane in one direction are to be milled:

- Mill a single lane and pave back by the end of each work day.
- Mill the entire width of pavement for all lanes to be milled in any direction daily and pave back within 72 hours.

If milled areas are not paved back within the same work period the Contractor is to furnish and install portable “Grooved Pavement” (W8-15) w/ Motorcycle Plaque mounted below signs. These are to be dual indicated where lateral clearance can be obtained within the median areas. Install the “Grooved Pavement” (W8-15) w/ Motorcycle Plaque 1500’ in advance of the milled area. Once mitigated, all portable signs are to be removed.

Project Requirements

Failure to comply with the following requirements will result in a suspension of all other operations:

1. Prior to beginning work, the Contractor shall submit a written construction sequence for traffic control and construction lighting to the Engineer at the first pre-construction meeting and the sequence must be approved before closing a lane of traffic.

2. Obtain written approval of the Engineer before working in more than one location or setting up additional lane closures. The maximum length of any one lane closure is 1 mile unless otherwise directed by the Engineer.

3. If Lane Closure Restrictions apply, see Special Provision, “Intermediate Contract Times and Liquidated Damages”.

4. Contractor shall conduct operations in an order such that water does not accumulate.

5. The Contractor on this and any adjacent projects, or subcontractors working within this project shall coordinate lane closure location, type, and direction with the Engineer to best maintain lane continuity through the limits of this and adjacent projects.

6. Operate paving equipment and conduct paving operations in the same direction as the flow of traffic unless the operation is protected by barrier or guardrail or as directed by the Engineer. Maintain vehicular access in accordance with Section 1101-05 of the *NCDOT Standard Specifications.*

7. Provide appropriate construction lighting in accordance with Section 1413 of the *NCDOT Standard Specifications*.

Measurement and Payment

Temporary Traffic Control (Lump Sum) shall include but not be limited to providing Signs (portable, stationary, and/or barricade mounted), including detour signing, Barricades, Truck Mounted Attenuators (TMA), Portable Changeable Message Signs (PCMS), Flashing Arrow Boards (FAB), Pilot Vehicle, Flaggers (including AFAD or PTS units), Cones, Skinny Drums and Drums as shown in the applicable Roadway Standard Drawings and all labor, tools, equipment and incidentals necessary to furnish, install, maintain and remove traffic control devices when no longer required.

Temporary Traffic Control (Lump Sum) does not include Portable Concrete Barrier, Waterfilled Barrier, Temporary Crash Cushions, Digital Speed Limit Signs, Sequential Flashing Lights, or Presence Lights as these devices are beyond the scope of this provision.

Payment for *Temporary Traffic Control (Lump Sum)* will be made on the following schedule:

(A) 70% of the unit bid price upon starting the project
(B) 20% of the unit bid price when the project is 50% complete
(C) 10% of the unit bid price when the project is 100% complete and all traffic control devices have been removed from the project.

Payment will be made under:

Pay Item	**Pay Unit**
Temporary Traffic Control	Lump Sum

STABILIZATION REQUIREMENTS:

(4-30-2019)(Rev. 1-19-27)

Stabilization for this project shall comply with the time frame guidelines as specified by the NCG-010000 general construction permit issued by the North Carolina Department of Environmental Quality Division of Energy, Mineral and Land Resources. Temporary or permanent ground cover stabilization shall occur within the following time frames from the last land-disturbing activity:

- Stabilize perimeter dikes, swales, ditches, and perimeter slopes within 7 calendar days.
- Stabilize high quality water (HQW) zones within 7 calendar days.
- Stabilize slopes steeper than 3:1 within 7 calendar days.
    - If slopes are 10 feet or less in length and are not steeper than 2:1, 14 calendar days are allowed.
- Stabilize slopes 3:1 to 4:1 within 14 calendar days.
    - 7 calendar days for slopes greater than 50 feet in length and with slopes steeper than 4:1.
    - 7 calendar days for perimeter dikes, swales, ditches, perimeter slopes, and HQW Zones.
- Stabilize areas with slopes flatter than 4:1 within 14 calendar days.
    - 7 calendar days for perimeter dikes, swales, ditches, perimeter slopes, and HQW Zones.

The stabilization timeframe for High Quality Water (HQW) Zones shall be 7 calendar days with no exceptions for slope grades or lengths. High Quality Water Zones (HQW) Zones are defined by North Carolina Administrative Code 15A NCAC 04A.0105 (25). Temporary and permanent ground cover stabilization shall be achieved in accordance with the provisions in this contract and as directed by the Engineer.

SEEDING AND MULCHING: **(West)**

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.

Shoulder and Median Areas

August 1 - June 1	**May 1 - September 1**
20# Kentucky Bluegrass	20# Kentucky Bluegrass
75# Hard Fescue	75# Hard Fescue
25# Rye Grain	10# German or Browntop Millet
500# Fertilizer	500# Fertilizer
4000# Limestone	4000# Limestone

Areas Beyond the Mowing Pattern, Waste and Borrow Areas:

August 1 - June 1
100# Tall Fescue
15# Kentucky Bluegrass
30# Hard Fescue
25# Rye Grain
500# Fertilizer
4000# Limestone

May 1 - September 1
100# Tall Fescue
15# Kentucky Bluegrass
30# Hard Fescue
10# German or Browntop Millet
500# Fertilizer
4000# Limestone

Approved Tall Fescue Cultivars

06 Dust	Escalade	Kalahari	Serengeti
2nd Millennium	Essential	Kitty Hawk 2000	Shelby
3rd Millennium	Evergreen 2	Legitimate	Shenandoah III
Avenger	Faith	Lexington	Shenandoah Elite
Bar Fa	Falcon IV	LifeGuard	Sheridan
Barlexas	Falson NG	LSD	Sidewinder
Barlexas II	Falcon V	Magellan	Signia
Barrera	Fat Cat	Masterpiece	Silver Hawk
Barrington	Fesnova	Millennium SRP	Skyline
Barrobusto	Fidelity	Monet	Solara
Barvado	Finelawn Elite	Mustang 4	Southern Choice II
Biltmore	Finelawn Xpress	Naturally Green	Speedway
Bingo	Finesse II	Ninja 2	Spyder LS
Bizem	Firebird	Ol' Glory	Sunset Gold
Black Tail	Firecracker LS	Padre	Taccoa
Blackwatch	Firenza	Patagonia	Tahoe II
Blade Runner II	Five Point	Pedigree	Talladega
Bonsai	Focus	Picasso	Tanzania
Braveheart	Forte	Piedmont	Temple
Bravo	Garrison	Plantation	Terrano
Bullseye	Gazelle II	Proseeds 5301	Thor
Cannavaro	GLX Aced	Prospect	Thunderstruck
Catalyst	Gold Medallion	Quest	Titanium LS
Cayenne	Grande 3	RainDance	Titan LTD
Cezanne RZ	Greenbrooks	Raptor II	Tracer
Chipper	Greenkeeper	Rebel IV	Traverse SRP
Cochise IV	Gremlin	Rebel Exeda	Trio
Constitution	Greystone	Rebel Sentry	Tulsa Time
Corgi	Guardian 21	Regenerate	Turbo
Corona	Guardian 41	Regiment II	Turbo RZ
Coyote	Hemi	Rembrandt	Tuxedo
Cumberland	Honky Tonk	Rendition	Ultimate
Darlington	Hot Rod	Reunion	Umbrella
DaVinci	Hunter	Rhambler 2 SRP	Van Gogh

Desire	Inferno	Riverside	Venture
Diablo	Integrity	RNP	Watchdog
Dominion	Jaguar 3	Rocket	Wolfpack II
Dynamic	Jamboree	Saltillo	Xtremegreen
Dynasty	Justice	Scorpion	

Approved Kentucky Bluegrass Cultivars:

4-Season	Blue Coat	Granite	Prosperity
Alexa II	Blue Note	Hampton	Quantum Leap
America	Blue Velvet	Harmonie	Rambo
Apollo	Boomerang	Impact	Rhapsody
Aramintha	Cabernet	Jackrabbit	Rhythm
Arcadia	Champagne	Jefferson	Royce
Aries	Champlain	Juliet	Rubicon
Armada	Chicago II	Keeneland	Rugby II
Arrow	Corsair	Langara	Rush
Arrowhead	Courtyard	Legend	Shariz
Aura	Dauntless	Liberator	Showcase
Avid	Delight	Lunar	Skye
Award	Diva	Madison	Solar Eclipse
Awesome	Dynamo	Mazama	Sonoma
Bandera	Eagleton	Mercury	Sorbonne
Barduke	Emblem	Merlot	Starburst
Barnique	Empire	Midnight	Sudden Impact
Baron	Envicta	Midnight II	Thermal Blue
Baroness	Everest	Moon Shadow	Total Eclipse
Barrister	Everglade	Mystere	Touche
Barvette HGT	Excursion	Nu Destiny	Tsunami
Bedazzled	Freedom II	NuChicago	Valor
Belissimo	Freedon III	NuGlade	Washington
Bewitched	Front Page	Oasis	Zedor
Beyond	Futurity	Odyssey	Zinfandel
Blackjack	Gaelic	Perfection	
Bluebank	Ginney II	Pinot	
Blueberry	Gladstone	Princeton 105	

Approved Hard Fescue Cultivars:

Aurora Gold	Firefly	Nordic	Rhino
Azay Blue	Gladiator	Oxford	Scaldis II
Beacon	Granite	Predator	Spartan II
Berkshire	Heron	Quatro	Stonehenge
Beudin	Jetty	Reliant II	Sword
Blueray	Minimus	Reliant IV	Warwick
Chariot	Miser	Rescue 911	

Eureka II Nancock Resolute

On cut and fill slopes 2:1 or steeper add 20# of Crown Vetch 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 by the Engineer.

TEMPORARY SEEDING:

Fertilizer shall be the same analysis as specified for *Seeding and Mulching* and applied at the rate of 400 pounds and seeded at the rate of 50 pounds per acre. German Millet, or Browntop Millet shall be used in summer months and rye grain during the remainder of the year. The Engineer will determine the exact dates for using each kind of seed.

FERTILIZER TOPDRESSING:

Fertilizer used for topdressing shall be 16-8-8 grade and shall be applied at the rate of 500 pounds per acre. A different analysis of fertilizer may be used provided the 2-1-1 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 16-8-8 analysis and as directed by the Engineer.

SUPPLEMENTAL SEEDING:

The kinds of seed and proportions shall be the same as specified for *Seeding and Mulching*, and the rate of application may vary from 25# to 75# per acre. The actual rate per acre will be determined prior to the time of topdressing and the Contractor will be notified in writing of the rate per acre, total quantity needed, and areas on which to apply the supplemental seed. Minimum tillage equipment, consisting of a sod seeder shall be used for incorporating seed into the soil as to prevent disturbance of existing vegetation. A clodbuster (ball and chain) may be used where degree of slope prevents the use of a sod seeder.

MOWING:

The minimum mowing height on this project shall be six inches.

NATIVE GRASS SEEDING AND MULCHING: **(East)**
(Rev. 1-19-2027)

Native Grass Seeding and Mulching shall be performed on the disturbed areas of wetlands and riparian areas, and adjacent to Stream Relocation construction within a 50 foot zone on both sides of the stream or depression, measured from top of stream bank or center of depression. The stream bank of the stream relocation shall be seeded by a method that does not alter the typical cross section of the stream bank. Native Grass Seeding and Mulching shall also be performed in the permanent soil reinforcement mat section of preformed scour holes, and in other areas as directed by the Engineer.

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.

March 1 - August 31	September 1 - February 28
18# Creeping Red Fescue	18# Creeping Red Fescue
6# Indiangrass	6# Indiangrass
8# Little Bluestem	8# Little Bluestem
4# Switchgrass	4# Switchgrass
25# Browntop Millet	35# Rye Grain
500# Fertilizer	500# Fertilizer
4000# Limestone	4000# Limestone

Approved Creeping Red Fescue Cultivars:

Aberdeen Boreal Epic Cindy Lou

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 by the Engineer.

Native Grass Seeding and Mulching shall be performed in accordance with Section 1660 of the *Standard Specifications* and vegetative cover sufficient to restrain erosion shall be installed immediately following grade establishment.

Measurement and Payment

Native Grass *Seeding and Mulching* will be measured and paid for in accordance with Article 1660-8 of the *Standard Specifications*.

MINIMIZE REMOVAL OF VEGETATION:

The Contractor shall minimize removal of vegetation within project limits to the maximum extent practicable. Vegetation along stream banks and adjacent to other jurisdictional resources outside the construction limits shall only be removed upon approval of Engineer. No additional payment will be made for this minimization work.

CONSTRUCTION MATERIALS MANAGEMENT

(3-19-19) (rev. 04-27-20)

Description

The requirements set forth shall be adhered to in order to meet the applicable materials handling requirements of the NCG010000 permit. Structural controls installed to manage construction materials stored or used on site shall be shown on the E&SC Plan. Requirements for handling materials on construction sites shall be as follows:

Polyacrylamides (PAMS) and Flocculants

Polyacrylamides (PAMS) and flocculants shall be stored in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures designed to protect adjacent surface waters. PAMS or other flocculants used shall be selected from the NC DWR List of Approved PAMS/Flocculants The concentration of PAMS and other flocculants used shall not exceed those specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions. The NC DWR List of Approved PAMS/Flocculants is available at:

https://files.nc.gov/ncdeq/Water+Quality/Environmental+Sciences/ATU/PAM8_30_18.pdf

Equipment Fluids

Fuels, lubricants, coolants, and hydraulic fluids, and other petroleum products shall be handled and disposed of in a manner so as not to enter surface or ground waters and in accordance with applicable state and federal regulations. Equipment used on the site must be operated and maintained properly to prevent discharge of fluids. Equipment, vehicle, and other wash waters shall not be discharged into E&SC basins or other E&SC devices. Alternative controls should be provided such that there is no discharge of soaps, solvents, or detergents.

Waste Materials

Construction materials and land clearing waste shall be disposed of in accordance with North Carolina General Statutes, Chapter 130A, Article 9 - Solid Waste Management, and rules governing the disposal of solid waste (15A NCAC 13B). Areas dedicated for managing construction material and land clearing waste shall be at least 50 feet away from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. Paint and other liquid construction material waste shall not be dumped into storm drains. Paint and other liquid construction waste washouts should be located at least 50 away from storm drain inlets unless there is no alternative. Other options are to install lined washouts or use portable, removable bags or bins. Hazardous or toxic waste shall be managed in accordance with the federal Resource Conservation and Recovery Act (RCRA) and NC Hazardous Waste Rules at 15A NCAC, Subchapter 13A. Litter and sanitary waste shall be managed in a manner to prevent it from entering jurisdictional waters and shall be disposed of offsite.

Herbicide, Pesticide, and Rodenticides

Herbicide, pesticide, and rodenticides shall be stored and applied in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act, North Carolina Pesticide Law of 1971 and labeling restrictions.

Concrete Materials

Concrete materials onsite, including excess concrete, must be controlled and managed to avoid contact with surface waters, wetlands or buffers. No concrete or cement slurry shall be discharged

from the site. (Note that discharges from onsite concrete plants require coverage under a separate NPDES permit – NCG140000.) Concrete wash water shall be managed in accordance with the *Concrete Washout Structure* provision. Concrete slurry shall be managed and disposed of in accordance with *NCDOT DGS and HOS DCAR Distribution of Class A Residuals Statewide* (Permit No. WQ0035749). Any hardened concrete residue will be disposed of, or recycled on site, in accordance with state solid waste regulations.

Earthen Material Stock Piles

Earthen material stock piles shall be located at least 50 feet away from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available.

Measurement and Payment

Conditions set within the *Construction Materials Management* provision are incidental to the project for which no direct compensation will be made.

WASTE AND BORROW SOURCES:

(2-16-11) (Rev. 3-17-22)

Payment for temporary erosion control measures, except those made necessary by the Contractor's own negligence or for his own convenience, will be paid for at the appropriate contract unit price for the devices or measures utilized in borrow sources and waste areas.

No additional payment will be made for erosion control devices or permanent seeding and mulching in any commercial borrow or waste pit. All erosion and sediment control practices that may be required on a commercial borrow or waste site will be done at the Contractor's expense.

All offsite Staging Areas, Borrow and Waste sites shall be in accordance with "Borrow and Waste Site Reclamation Procedures for Contracted Projects" located at:

https://connect.ncdot.gov/resources/roadside/FieldOperationsDocuments/Contract%20Reclamation%20Procedures.pdf

All forms and documents referenced in the "Borrow and Waste Site Reclamation Procedures for Contracted Projects" shall be included with the reclamation plans for offsite staging areas, and borrow and waste sites.

SAFETY FENCE AND JURISDICTIONAL FLAGGING:

Description

Safety Fence shall consist of furnishing materials, installing and maintaining polyethylene or polypropylene fence along the outside riparian buffer, wetland, or water boundary, or other boundaries located within the construction corridor to mark the areas that have been approved to infringe within the buffer, wetland, endangered vegetation, culturally sensitive areas or water. The fence shall be installed prior to any land disturbing activities.

Interior boundaries for jurisdictional areas noted above shall be delineated by stakes and highly visible flagging.

Jurisdictional boundaries at staging areas, waste sites, or borrow pits, whether considered outside or interior boundaries shall be delineated by stakes and highly visible flagging.

Materials

(A) Safety Fencing

Polyethylene or polypropylene fence shall be a highly visible preconstructed safety fence approved by the Engineer. The fence material shall have an ultraviolet coating.

Either wood posts or steel posts may be used. Wood posts shall be hardwood with a wedge or pencil tip at one end, and shall be at least 5 ft. in length with a minimum nominal 2" x 2" cross section. Steel posts shall be at least 5 ft. in length, and have a minimum weight of 0.85 lb/ft of length.

(B) Boundary Flagging

Wooden stakes shall be 4 feet in length with a minimum nominal 3/4" x 1-3/4" cross section. The flagging shall be at least 1" in width. The flagging material shall be vinyl and shall be orange in color and highly visible.

Construction Methods

No additional clearing and grubbing is anticipated for the installation of this fence. The fence shall be erected to conform to the general contour of the ground.

(A) Safety Fencing

Posts shall be set at a maximum spacing of 10 ft., maintained in a vertical position and hand set or set with a post driver. Posts shall be installed a minimum of 2 ft. into the ground. If hand set, all backfill material shall be thoroughly tamped. Wood posts may be sharpened to a dull point if power driven. Posts damaged by power driving shall be removed and replaced prior to final acceptance. The tops of all wood posts shall be cut at a 30-degree angle. The wood posts may, at the option of the Contractor, be cut at this angle either before or after the posts are erected.

The fence geotextile shall be attached to the wood posts with one 2" galvanized wire staple across each cable or to the steel posts with wire or other acceptable means.

Place construction stakes to establish the location of the safety fence in accordance with Article 105-9 or Article 801-1 of the *Standard Specifications.* No direct pay will be made for the staking of the safety fence. All stakeouts for safety fence shall be considered incidental to the work being paid for as "Construction Surveying", except that where there is no pay item for construction

surveying, all safety fence stakeout will be performed by state forces.

The Contractor shall be required to maintain the safety fence in a satisfactory condition for the duration of the project as determined by the Engineer.

(B) Boundary Flagging

Boundary flagging delineation of interior boundaries shall consist of wooden stakes on 25 feet maximum intervals with highly visible orange flagging attached. Stakes shall be installed a minimum of 6" into the ground. Interior boundaries may be staked on a tangent that runs parallel to buffer but must not encroach on the buffer at any location. Interior boundaries of hand clearing shall be identified with a different colored flagging to distinguish it from mechanized clearing.

Boundary flagging delineation of interior boundaries will be placed in accordance with Article 105-9 or Article 801-1 of the *Standard Specifications*. No direct pay will be made for delineation of the interior boundaries. This delineation will be considered incidental to the work being paid for as *Construction Surveying,* except that where there is no pay item or construction surveying the cost of boundary flagging delineation shall be included in the unit prices bid for the various items in the contract. Installation for delineation of all jurisdictional boundaries at staging areas, waste sites, or borrow pits shall consist of wooden stakes on 25 feet maximum intervals with highly visible orange flagging attached. Stakes shall be installed a minimum of 6" into the ground. Additional flagging may be placed on overhanging vegetation to enhance visibility but does not substitute for installation of stakes.

Installation of boundary flagging for delineation of all jurisdictional boundaries at staging areas, waste sites, or borrow pits shall be performed in accordance with Subarticle 230-4(B)(5) or Subarticle 802-2(F) of the *Standard Specifications*. No direct pay will be made for this delineation, as the cost of same shall be included in the unit prices bid for the various items in the contract.

The Contractor shall be required to maintain alternative stakes and highly visible flagging in a satisfactory condition for the duration of the project as determined by the Engineer.

Measurement and Payment

Safety Fence will be measured and paid as the actual number of linear feet of polyethylene or polypropylene fence installed in place and accepted. Such payment will be full compensation including but not limited to furnishing and installing fence geotextile with necessary posts and post bracing, staples, tie wires, tools, equipment and incidentals necessary to complete this work.

Payment will be made under:

Pay Item	**Pay Unit**
Safety Fence	Linear Foot

IMPERVIOUS DIKE:

(9-9-11)(Rev. 11-15-22)

Description

This work consists of furnishing, installing, maintaining, pumping and removing an *Impervious Dike* for the purpose of diverting normal stream flow around the construction site. The Contractor shall construct an impervious dike in such a manner approved by the Engineer. The impervious dike shall not permit seepage of water into the construction site or contribute to siltation of the stream. The impervious dike shall be constructed of an acceptable material in the locations noted on the plans or as directed by the Engineer.

Materials

Acceptable materials shall include but not be limited to sheet piles, sandbags, and/or the placement of an acceptable size stone lined with polypropylene or other impervious geotextile.

Earth material shall not be used to construct an impervious dike when it is in direct contact with the stream unless vegetation can be established before contact with the stream takes place.

Construction Methods

Where impervious dikes are shown on the plans and used to dewater or lower the water elevation, construct in accordance with Article 410-4 and 410-5.

Measurement and Payment

Impervious Dike will be measured and paid as the actual number of linear feet of impervious dike(s) constructed, measured in place from end to end of each separate installation that has been completed and accepted by the Engineer. Such price and payment will be full compensation for all work including but not limited to furnishing materials, construction, maintenance, pumping and removal of the impervious dike.

Payment will be made under:

Pay Item	*Pay Unit*
Impervious Dike	Linear Foot

PERMANENT SOIL REINFORCEMENT MAT:

9-1-2011 (Rev. 8-20-24)

Description

This work consists of furnishing and placing permanent soil reinforcement mat (PSRM), of the type specified, over previously prepared areas at locations shown on the plans and as directed by the Engineer.

Materials

The product shall be a permanent soil reinforcement mat constructed of synthetic stabilized, non-biodegradable synthetic fibers processed to form a rigid permanent three-dimensional structure to promote soil stability in combination with vegetation under hydraulic stresses. Organic biodegradable fibers (such as straw, coir, excelsior or blends thereof) may also be incorporated into the PSRM, evenly distributed throughout the mat. PSRMs utilizing organic fibers shall have a bottom and top UV stabilized netting stitched together with UV stabilized thread to retain the organic fibers. All PSRMs shall meet the following minimum physical properties:

Property	Test Method	*Value*	Unit
Thickness	ASTM D6525	≥0.25	in
Tensile Strength (MD)	ASTM D6818	225	lbs/ft
Tensile Strength (TD)	ASTM D6818	175	lbs/ft
Vegetation Establishment (Min)	ASTM D7322	250	%
UV Stability[1]	ASTM D4355	≥80	%

[1]ASTM D4355 Tensile Strength and % strength retention of material after 1,000 hours of exposure.

PSRM shall also meet the minimum performance values by type as shown in the table below:

Property	Test Method	*Type 1*	Type 2	Type 3	Type 4	Type 5	Unit
Maximum Permissible Shear Stress (Unvegetated)	ASTM 6460	2.25	2.5	3.0	3.25	N/A	lb/ft^2
Maximum Permissible Shear Stress (Vegetated)	ASTM 6460	6.0	8.0	10.0	12.0	16.0	lb/ft^2
Maximum Allowable Velocity (Vegetated)	ASTM 6460	8.0	12	16.0	20.0	24.0	ft/s

Staples shall be used as anchors. Provide staples to meet Article 1060-8 of the *Standard Specifications*.

Construction Methods

All areas to be protected with the PSRM shall be brought to final grade and prepared in accordance with Section 1660 of the *Standard Specifications*. The surface of the soil shall be smooth, firm, stable and free of rocks, clods, roots or other obstructions that would prevent the mat from lying in direct contact with the soil surface. Preserve the required line, grade and cross section of the area covered. Unroll the PSRM in the direction of the flow of water and apply without stretching so that it will lie smoothly but loosely on the soil surface. Bury the up-channel or top of slope end of each piece of PSRM in a narrow trench at least 6 inches deep and tamp firmly. Where one roll of matting ends and a second-roll begins, overlap the end of the upper roll over the beginning of the second roll so there is a 6 inch overlap. Install staple checks 4 inches on center and every 30

feet longitudinally in the matting or as directed by the Engineer. Fold over and bury matting to the full depth of the trench, close and tamp firmly. Overlap matting at least 4 inches where 2 or more widths of matting are laid side by side.

Place staples across matting at ends, junctions and check trenches approximately 10 inches apart. Place staples along the outer edges and down the center of each strip of matting 3 feet apart. Place staples along all lapped edges 10 inches apart. Install product with netting and biodegradable fibers on the top side if present. Trenching and stapling shall fit individual cut or fill slope conditions and conform to manufacturer's installation recommendations for the type specified. Any conflict between the manufacturer's installation recommendations and this special provision will be resolved by the more stringent measures being required.

Apply all soil amendments and one-half of the seed in accordance with Section 1660 of the Standard Specifications of the types at the rates specified in the contract prior to installation of the PSRM. For PSRMs that do not contain biodegradable fibers, apply 3/4 inch to 1 inch loose, friable topsoil uniformly over the PSRM and gently work to incorporate into the structure of the PSRM completely filling the voids until the level of soil is at the top of the PSRM. Apply the remainder of the seed and gently work into the surface of the topsoil in-fill and mulch. For all other PSRMs, apply 3/4 inch to 1 inch of loose, friable topsoil uniformly over the PSRM and gently work to create a suitable seed bed. Apply the remainder of the seed and gently work into the surface of the topsoil. At the sole discretion of the Engineer, topsoil may be omitted for PSRMs containing biodegradable fibers. All seed should be applied prior to installation of PSRM if topsoil is omitted and will not need to be mulched.

Measurement and Payment

Permanent Soil Reinforcement Mat, Type __ will be measured and paid for as the actual number of square yards measured along the surface of the ground over which permanent soil reinforcement mat of the specified type is installed and accepted. Overlaps will not be included in the measurement and will be considered as incidental to the work. Such price and payment shall be full compensation for all work covered by this provision, including, but not limited to, furnishing all materials, labor, equipment and incidentals necessary to apply topsoil and install the PSRM.

Payment will be made under:

Pay Item	**Pay Unit**
Permanent Soil Reinforcement Mat, Type __	Square Yard

PROJECT SPECIAL PROVISION

(10-18-95) (Rev. 10-15-24) Z-1

PERMITS

The Contractor's attention is directed to the following permits, which have been issued to the Department of Transportation by the authority granting the permit.

PERMIT	AUTHORITY GRANTING THE PERMIT
Dredge and Fill and/or Work in Navigable Waters (404)	U. S. Army Corps of Engineers
Water Quality (401)	Division of Water Resources, DEQ State of North Carolina

The Contractor shall comply with all applicable permit conditions during construction of this project.

Agents of the permitting authority will periodically inspect the project for adherence to the permits.

The Contractor's attention is also directed to Articles 107-10 and 107-13 of the *Standard Specifications* and the following:

Should the Contractor propose to utilize construction methods (such as temporary structures or fill in waters and/or wetlands for haul roads, work platforms, cofferdams, etc.) not specifically identified in the permit (individual, general, or nationwide) authorizing the project it shall be the Contractor's responsibility to coordinate with the Engineer to determine what, if any, additional permit action is required. The Contractor shall also be responsible for initiating the request for the authorization of such construction method by the permitting agency. The request shall be submitted through the Engineer. The Contractor shall not utilize the construction method until it is approved by the permitting agency. The request normally takes approximately 60 days to process; however, no extensions of time or additional compensation will be granted for delays resulting from the Contractor's request for approval of construction methods not specifically identified in the permit.

Where construction moratoriums are contained in a permit condition which restricts the Contractor's activities to certain times of the year, those moratoriums will apply only to the portions of the work taking place in the restricted waters, wetlands or buffer zones, provided that activities outside those areas is done in such a manner as to not affect the restricted waters, wetlands or buffer zones.

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT
151 PATTON AVENUE, ROOM 208
ASHEVILLE, NORTH CAROLINA 28801-5006

October 30, 2026

Regulatory Division
SAW-2025-01598
Reverification #1

Sent Via email: cjwood@ncdot.gov

Chris Wood
NCDOT, Division 11
801 Statesville Rd.
Wilkesboro, NC 28655

Dear Mr. Wood:

This letter is in response to the Pre-Construction Notification (PCN) you submitted to the Wilmington District, WRDA/Transportation Branch on August 25, 2026, to reverify a Department of the Army Nationwide Permit (NWP) verification that was originally issued on September 30, 2025. This project has been assigned the file number SAW-2025-01598 and is known as NCDOT / 11C.095115 / Upper Crab Orchard Road Imp SR 1132. This file number should be referenced in all correspondence concerning this project. Note that construction of this project was delayed due to Hurricane Helene and impacts to waters of the U.S. have not changed; this is simply a reverification to allow the project to be constructed later than originally planned.

A review of the information provided indicates that the proposed work would include WBS 11C.095115; widening and paving a 1.0-mile gravel road section of SR 1132, Upper Crab Orchard Road, including the replacement of seven pipes that carry jurisdictional streams (262 lf of stream impact), and impacts totaling 0.022 acre to two small wetlands. These impacts are shown in the table below. The project area for this determination is illustrated on the enclosed impact maps and plan sheets. The project is located along SR 1132, Upper Crab Orchard Road, project center at Latitude 36.199930 and Longitude -81.805140; southwest of Valle Crucis, Watauga County, North Carolina.

We have determined that the proposed work is authorized by Nationwide General Permit 14, Linear Transportation Projects pursuant to authorities under Section 404 of the Clean Water Act (33 U.S.C § 1344). The proposed work must be accomplished in strict accordance with the general permit conditions, any regional conditions, the special conditions listed in this letter, the application materials, and the enclosed plans. If the extent of the project area and/or nature of the authorized impacts to waters are modified, a revised PCN must be submitted to this office for written approval before work is initiated. Any violation of permit conditions or deviation from your submitted plans may subject the permittee to enforcement action.

Impacts to Waters of US:

				Impacts			
Site	Waterbody	Structure Type	Purpose	Permanent (ac) Wetlands	Temporary (ac) Wetlands	Permanent (ft) Streams	Temporary (ft) Streams
W1	Wetland A	Fill	Fill	0.02			
S1	Stream A	Pipe	Pipe Extension			11	20
S2	Stream B	Pipe	Pipe Extension			15	20
S3	Stream C	Pipe	Pipe Extension			25	20
S4	Stream D	Pipe	Pipe Extension			14	20
S5	Stream E	Pipe	New Pipe			12	20
W2	Wetland C	Pipe	New Pipe and Fil	0.002			
S6	Stream F	Pipe	Pipe Extension			25	20
S7	Stream G	Pipe	Pipe Extension			15	20
S8	Stream G	Rip Rap	Dissipator Pad			5	
TOTAL				**0.022**		**122**	**140**

Compensatory mitigation: 244’ of stream credit and 0.044 acre of wetland credit were required by special condition in the original verification letter in 2025; this compensatory mitigation was purchased on October 8, 2025, per NCDMS.

This verification is valid until **March 15, 2031**, unless prior to this date the subject NWP(s) is suspended, revoked, or is modified such that the activity no longer complies with the terms and conditions of this NWP. If you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

Project Specific Special Conditions:

1. Western NC Bat PBO: The U.S. Fish and Wildlife Service approved a Programmatic Biological and Conference Opinion [Programmatic Opinion (PO)], and a Programmatic Conference Report titled "Five Imperiled Bat Species in Western North Carolina” on April 1, 2025. This PO contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with “incidental take” that are specified in the PO. Your authorization under this Corps permit is conditional upon your compliance with all the

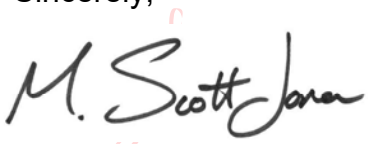
mandatory terms and conditions associated with incidental take of the PO, which are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the PO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PO, and with the ESA.

2. All recommendations in the attached letter from the North Carolina Wildlife Resources Commission dated August 28, 2025, are hereby incorporated as special conditions of this permit.

This NWP verification does not preclude the necessity to obtain any other Federal, State, or local permits, licenses, and/or certifications, which may be required.

If you have any questions related to this verification or have issues accessing documents referenced in this letter, please contact Brooke Davis, Regulatory Project Manager of the WRDA/Transportation Branch by email at Brooke.A.Davis@usace.army.mil . Please take a moment to complete our customer satisfaction survey located at https://regulatory.ops.usace.army.mil/customer-service-survey/.

Sincerely,



M. Scott Jones, PWS
WRDA / Transportation Branch Chief

Enclosures

Nationwide Permit 14
Linear Transportation Projects
Effective Date: March 15, 2026 / Expiration Date: March 15, 2031
Authority: Section 10/Section 404

14. Linear Transportation Projects. Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, driveways, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge of dredged or fill material in a special aquatic site, including wetlands. (See general condition 32.)

Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

Note 2: Some discharges of dredged or fill material for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, “District Engineer’s Decision.” The district engineer may require mitigation to

ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. **Navigation.**

(a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. **Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. **Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. **Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. **Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. **Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. **Adverse Effects From Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. **Management of Water Flows.** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows, including tidal flows. The activity must not restrict or impede the passage of normal or high flows, including tidal flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. **Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. **Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance. If mats are used to minimize soil disturbance, the affected areas must be returned to pre-construction elevations, and revegetated as appropriate. In circumstances where the use of mats has caused significant soil compaction, efforts using techniques (e.g., soil reaeration techniques) to break up the compaction should be employed to return the soil to a pre-construction state prior to returning to pre-construction elevations.

12. **Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. **Removal of Temporary Structures and Fills.** Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. **Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP

general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. **Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. **Wild and Scenic Rivers.**

(a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. **Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. **Endangered Species.**

(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional

ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have “no effect” on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word “harm” in the definition of “take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal permittee should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in

concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. **Migratory Birds and Bald and Golden Eagles.** The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. **Historic Properties.**

(a) No activity is authorized under any NWP which may have the potential to cause effects on properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects on any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of

the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects on historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. **Discovery of Previously Unknown Remains and Artifacts.** Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activities authorized by NWPs, must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the federal, tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. **Designated Critical Resource Waters.** Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. **Mitigation.** The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory

mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, because streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not

practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. **Safety of Impoundment Structures.** To ensure that all impoundment structures are safely designed, the district engineer may require non-federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. **Water Quality.**

(a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed activity which may result in any discharge from a point source into waters of the United States must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by the certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed activity which may result in any discharge from a point source into waters of the United States in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed activity which may result in any discharge from a point source into waters of the United States is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge into waters of the United States, the permittee must submit a copy of the certification to the district engineer. The discharge into waters of the United States is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied (i.e., by the issuance of a water quality certification or a waiver and completion of the Section 401(a)(2) process).

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. **Coastal Zone Management.** In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. **Regional and Case-By-Case Conditions.** The activity must comply with any regional conditions that may have been added by the division engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. **Use of Multiple Nationwide Permits.** The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) The total acreage loss of waters of the United States for a single and complete project cannot exceed the acreage limit of the NWP with the highest specified acreage limit when multiple NWPs are used to authorize an activity.

(b) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States for that single and complete project cannot exceed that specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14 (which has an acreage limit of

1/3 acre in tidal waters), with associated bank stabilization authorized by NWP 13 (which does not have a specified acreage limit), the maximum acreage loss of waters of the United States for the total project cannot exceed 1⁄3-acre.

(c) If two or more of the NWPs used to authorize the single and complete project have specified acreage limits, the acreage loss of waters of the United States authorized by each of those NWPs cannot exceed the specified acreage limits of each of those NWPs. For example, if a commercial development is constructed under NWP 39 (which as a 1/2-acre limit), and the single and complete project includes the filling of a ditch authorized by NWP 46 (which has a 1-acre limit), the maximum acreage loss of waters of the United States for the construction of the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States caused by the combination of the NWP 39 and NWP 46 activities cannot exceed 1 acre.

29. **Transfer of Nationwide Permit Verifications.** If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

(Transferee)

_____

(Date)

30. **Compliance Certification.** Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The successful completion of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the

certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. **Activities Affecting Structures or Works Built by the United States.** If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. **Pre-Construction Notification.**

(a) *Timing*. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the

waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification*: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4)

(i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of waters, wetlands, and other special aquatic sites on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many

wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate. For NWP 27 activities that require PCNs because of other general conditions or regional conditions imposed by division engineers, see Note 2 of that NWP;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the compensatory mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the “study river” (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification*: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) *Agency Coordination*:

(1) The district engineer will consider any comments from federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for:

(i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States;

(ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and

(iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases where the prospective permittee is not a federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

District Engineer's Decision

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or

cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the single and complete crossings of waters of the United States that require PCNs to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings of waters of the United States authorized by an NWP. If an applicant requests a waiver of an applicable limit, as provided for in NWPs 13, 36, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by an NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add activity-specific conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed NWP activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters. However, compensatory mitigation shall not be required for activities authorized by NWP 27 because those activities must result in net increases in aquatic resource functions and services (see the text of NWP 27). The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal when determining whether the net adverse environmental effects of the proposed NWP activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the proposed activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final

mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure that the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed NWP activity are more than minimal, then the district engineer will notify the applicant either:

(a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit;

(b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or

(c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN review period (unless additional time is required to comply with general conditions 16, 18, 20, and/or 31), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

Further Information

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

Nationwide Permit Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term “discharge” means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic ecosystem restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on: (1) the structure, functions, and dynamics of an aquatic ecosystem type or a riparian area type that currently exists in the region; (2) the structure, functions, and dynamics of an aquatic ecosystem type or riparian area type that existed in the region in the past; and/or (3) indigenous and local ecological knowledge that apply to the aquatic ecosystem type or riparian area type (i.e., a cultural ecosystem). Cultural ecosystems are ecosystems that have developed under the joint influence of natural processes and human management activities (e.g., fire stewardship). An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water’s surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. The loss of stream bed includes the acres of stream bed that are permanently adversely affected by filling or excavation because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters or wetlands for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Nature-based solutions: Actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has surface water flowing continuously year-round during a typical year.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or

uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term “single and complete project” is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of “independent utility”). Single and complete non-linear projects may not be “piecemealed” to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. The substrate may also be comprised, in part, of organic matter, such as large or small wood fragments, leaves, algae, and other organic materials. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized jurisdictional stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin,

weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

Tribal lands: Any lands title to which is either: 1) held in trust by the United States for the benefit of any Indian tribe or individual; or 2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a “water of the United States.” If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)).

REGIONAL CONDITIONS:

A. BACKGROUND

1. The following Regional Conditions have been approved by the Wilmington District for the Nationwide Permits (NWP) published in the June 18th, 2025, Federal Register. As specified, under NWP General Condition #27, Regional and Case-By-Case Conditions: The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its Section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

2. Note: The acronym "PCN" used throughout this document refers to *Pre-Construction Notification* as further defined in NWP General Condition #32.

3. The following regional conditions will provide additional protection for the aquatic environment that is necessary to ensure that the NWPs authorize only those activities with no more than minimal adverse environmental effects.

B. EXCLUDED WATERS AND/OR AREAS

1. **Anadromous Fish Spawning Areas.** Work in waters of the U.S. designated by either the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC) as anadromous fish spawning areas are prohibited from February 15th through June 30th, without prior written approval from the Corps and the appropriate wildlife agencies (NCDMF, NCWRC and/or the National Marine Fisheries Service (NMFS)). Work in waters of the U.S. designated by NCWRC as primary nursery areas in inland waters are prohibited from February 15th through September 30th, without prior written approval from the Corps and the appropriate wildlife agencies. Work in waters of the U.S. designated by NCDMF as primary nursery areas shall be coordinated with NCDMF prior to being authorized by this NWP. Coordination with NCDMF may result in a required construction moratorium during periods of significant biological productivity or critical life stages.

2. **Trout Waters Moratorium.** Work in waters of the U.S. in the designated trout watersheds of North Carolina are prohibited from October 15th through April 15th without prior written approval from the NCWRC, or from the Eastern Band of Cherokee Indians (EBCI) Fisheries and Wildlife Management (FWM) office if the project is located on EBCI trust land. (See Section C.3. below for information on the designated trout watersheds).

3. **Sturgeon Spawning Areas.** No in-water work shall be conducted in waters of the U.S. designated by the National Marine Fisheries Service as Atlantic sturgeon critical habitat from February 1st through June 30th. No in-water work shall be conducted in waters of the U.S. in the Roanoke River designated as Atlantic sturgeon critical habitat from February 1st through June 30th, and August 1st through October 31st, without prior written approval from NMFS.

4. **Submerged Aquatic Vegetation.** Impacts to Submerged Aquatic Vegetation (SAV) are not authorized by any NWP, except NWP 48, NWP 55 and NWP 56, unless Essential Fish Habitat (EFH) consultation has been completed pursuant to the Magnuson-Stevens Fisheries Conservation and Management Act (Magnuson-Stevens Act). Permittees shall submit a PCN (see NWP General Condition 32) to the District Engineer prior to commencing the activity if the project would affect SAV. The permittee may not begin work until notified by the Corps that the requirements of the Magnuson-Stevens Act have been satisfied, and that the activity is verified.

C. REGIONAL CONDITIONS APPLICABLE TO ALL NWPs

1. **Critical Habitat in Western NC.** For proposed activities within waters of the U.S. that require a Pre-Construction Notification (PCN) and are located in the thirteen counties listed below, permittees must provide a copy of the PCN to the U.S. Fish and Wildlife Service (USFWS), 160 Zillicoa Street, Asheville, North Carolina 28801 and the Corps Asheville Regulatory Field Office. Please see General Condition 18 for specific PCN requirements related to the Endangered Species Act and the below website for information on the location of designated critical habitat.

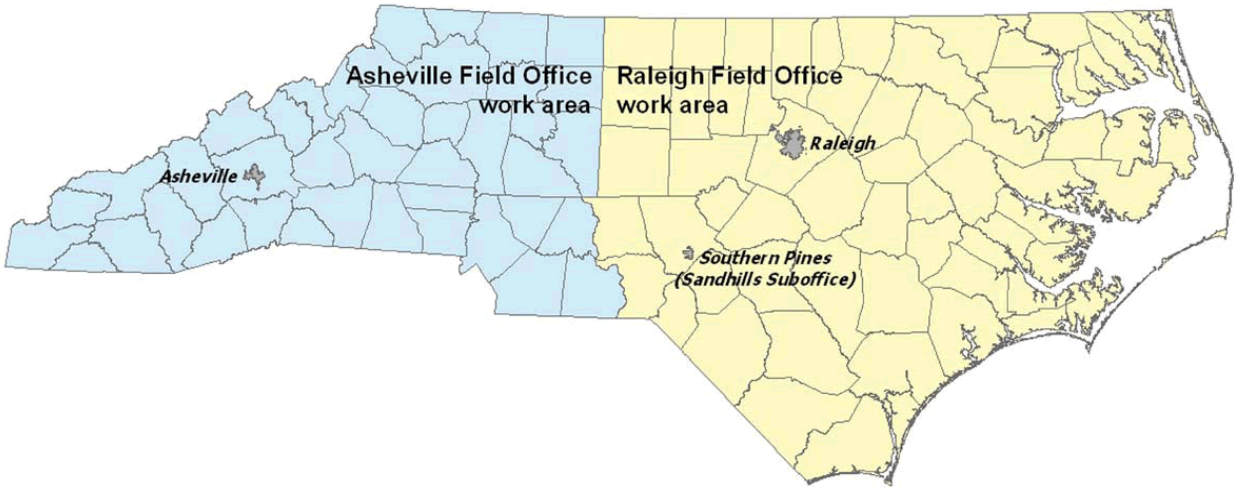
   Counties with tributaries that drain to designated critical habitat that require notification to the Asheville U.S. Fish and Wildlife Service: Avery, Cherokee, Graham, Haywood, Henderson, Jackson, Macon, Mecklenburg, Mitchell, Swain, Transylvania, Union and Yancey.

   Website and office addresses for Endangered Species Act Information:

   The Wilmington District has developed the following website for permittees which provides guidelines on how to review linked websites and maps in order to fulfill NWP General Condition 18 (Endangered Species) requirements: https://www.sad.usace.army.mil/Missions/Regulatory/North-Carolina/#endangered-species-and-critical-habitat.

   Permittees who do not have internet access may contact the appropriate U.S. Fish and Wildlife Service offices listed below or Corps at (704) 510-1441.

   Below is a map of the USFWS Field Office Boundaries:



Asheville U.S. Fish and Wildlife Service Office counties: All counties west of and including Anson, Stanly, Davidson, Forsyth and Stokes Counties.

U.S. Fish and Wildlife Service
Asheville Field Office
160 Zillicoa Street
Asheville, NC 28801
Telephone: (828) 258-3939

Raleigh U.S. Fish and Wildlife Service Office counties: All counties east of and including Richmond, Montgomery, Randolph, Guilford, and Rockingham Counties.

U.S. Fish and Wildlife Service
Raleigh Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Telephone: (919) 856-4520

2. **Special Designation Waters.** Prior to the use of any NWP that involves a discharge of dredged or fill material in any of the following identified waters and/or adjacent wetlands in North Carolina, permittees shall submit a PCN to the District Engineer prior to commencing the activity (see General Condition 32). The North Carolina waters and wetlands that require additional PCN requirements are:

"Primary Nursery Areas" (PNA), including inland PNA, as designated by the North Carolina Marine Fisheries Commission and/or the North Carolina Wildlife Resources Commission. The definition of and designated PNA waters can be found in the North Carolina State Administrative Code at Title 15A, Subchapters 3R and 10C (15A NCAC 03R .0103; 15A NCAC 10C .0502; and 15A NCAC 10C .0503) and at the following web page: http://reports.oah.state.nc.us/ncac.asp?folderName=%5CTitle%2015A%20-%20Environmental%20Quality

3. **Trout Waters.** Prior to any discharge of dredge or fill material into streams, waterbodies, or wetlands within the currently designated trout watersheds of North Carolina, the permittee shall submit a PCN (see General Condition 32) to the District Engineer prior to commencing the activity. Current designated trout waters can be found at this link: https: https://www.sad.usace.army.mil/Missions/Regulatory/North-Carolina/#western-north-carolina-trout-watersheds. (These maps are periodically updated as new trout distribution and habitat data become available). The permittee shall also provide a copy of the PCN to the appropriate NCWRC office, or to the EBCI FWM Office (if the project is located on EBCI trust land), to facilitate the determination of any potential impacts to designated Trout Waters.

   NCWRC and NC Trout Watersheds:

NCWRC Contact**	**Counties that may have trout waters**	
Mountain Coordinator 645 Fish Hatchery Rd., Building B Marion, NC 28752 (828) 400-4223 For NCDOT Projects: Western NCDOT Coordinator, 20830 Great Smoky Mountain Expressway, Waynesville, NC 28786 (828) 476-1966	Alleghany Ashe Avery Graham Haywood Burke Buncombe Caldwell Cherokee Clay Henderson Madison McDowell Mitchell Polk Rutherford Surry Wilkes Yancey	Jackson Macon Swain Transylvania Watauga
EBCI Contact**	**Counties that are within Trout Watersheds***	
Office of Natural Resources P.O. Box 1747, Cherokee, NC 28719 (828) 359-6113	Qualla Boundary and non-contiguous tracts of trust land located in portions of Swain, Jackson, Haywood, Graham and Cherokee Counties.	

*NOTE: To determine PCN requirements, contact the Corps Asheville Regulatory Field Office at (828) 271-7980 or view maps showing trout

watersheds in each County at the following webpage: https://www.sad.usace.army.mil/Missions/Regulatory/North-Carolina/#western-north-carolina-trout-watersheds.

**If a project is located on EBCI trust land, submit the PCN in accordance with Regional Condition C.16. Contact the Corps Asheville Regulatory Field Office at (828) 271-7980 with questions.

4. **Western NC Waters and Corridors.** The permittee shall submit a PCN (see General Condition 32) to the District Engineer prior to commencing the activity in waters of the U.S. if the activity will occur within any of the following identified waters in western North Carolina, within 0.5 mile on either side of these waters, or within 0.75 mile of the Little Tennessee River, as measured from the top of the bank of the respective water (i.e., river, stream, or creek):

Brasstown Creek
Burningtown Creek
Cane River
Caney Fork
Cartoogechaye Creek
Chattooga River
Cheoah River
Cowee Creek
Cullasaja River
Deep Creek
Ellijay Creek
French Broad River
Garden Creek
Hiwassee River
Hominy Creek
Iotla Creek
Little Tennessee River (within the river or within 0.75 mile on either side of this river)
Nantahala River
Nolichucky River
North Fork French Broad River
North Toe River
Nottley River
Oconaluftee River (portion not located on trust/EBCI land)
Peachtree Creek
Shooting Creek
Snowbird Creek
South Toe River
Stecoah Creek
Swannanoa River
Sweetwater Creek
Tuckasegee River (also spelled Tuckaseegee or Tuckaseigee)
Valley River
Watauga Creek
Watauga River

Wayah Creek
West Fork French Broad River

To determine PCN requirements, contact the Corps Asheville Regulatory Field Office at (828) 271-7980 or view maps for all corridors at the following webpage: https://www.sad.usace.army.mil/Missions/Regulatory/North-Carolina/#designated-waters.

5. **Limitation of Loss of Stream Bed.** NWPs may not be used for activities that may result in the loss of more than 0.05 acre of stream bed, except for NWP 32.

6. **Pre-Construction Notification for Loss of Stream Bed Exceeding 0.02 acre.** The permittee shall submit a PCN to the District Engineer prior to commencing the activity (see General Condition 32) prior to the use of any NWP for any activity that results in the loss of more than 0.02 acre of stream bed. This applies to NWPs that do not have PCN requirements as well as those NWPs that require a PCN.

7. **Mitigation for Loss of Stream Bed.** For any NWP that results in a loss of more than 0.02 acre of stream bed, the permittee shall provide a mitigation proposal to compensate for more than minimal individual and cumulative adverse impacts to the aquatic environment, unless the District Engineer determines in writing that either some other form of mitigation would be more environmentally appropriate, or the adverse effects of the proposed activity are minimal. For stream bed losses of 0.02 acre or less that require a PCN, the District Engineer may determine, on a case-by-case basis, that compensatory mitigation is required to ensure that the activity results in minimal adverse effect on the aquatic environment.

8. **Riprap.** For all NWPs that allow for the use of riprap material for bank stabilization, the following conditions shall be applied:

   a. Filter cloth must be placed underneath the riprap as an additional requirement of its use in North Carolina waters. The placement of filter fabric is not required if the riprap will be pushed or “keyed” into the bank of the waterbody. A waiver from the specifications in this Regional Condition must be requested in writing.

   b. Riprap shall be placed only on the stream banks, or, if it is necessary to be placed in the stream bed, the finished top elevation of the riprap should not exceed that of the original stream bed.

9. **Culvert Placement.** For all NWPs that allow for culvert placement, the following conditions shall be applied:

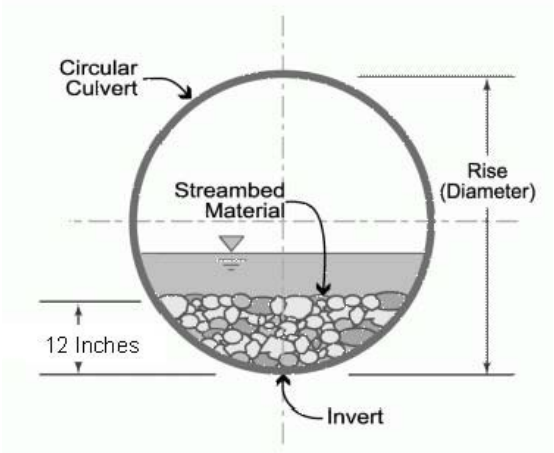
   a. For all NWPs that involve the construction/installation of culverts, measures shall be included in the construction/installation that will promote the safe passage of fish and other aquatic organisms.

   Placement of culverts and other structures in streams shall be below the elevation of the streambed by one foot for all culverts with a diameter greater

than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than or equal to 48 inches. If the culvert outlet is submerged within a pool or scour hole and designed to provide for aquatic passage, then culvert burial into the streambed is not required.

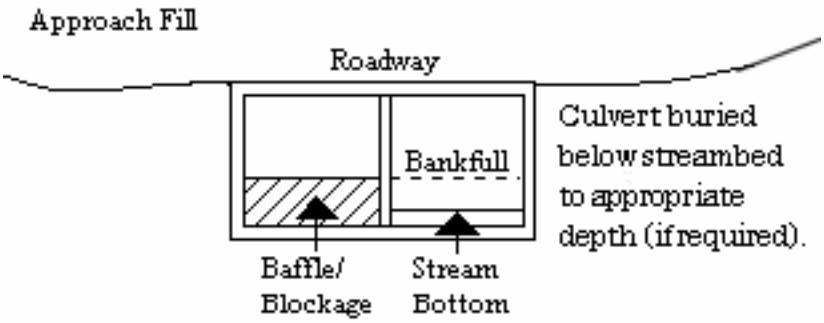
Culvert burial is not required for structures less than 72-inch diameter/width, where the slope of the culvert will be greater than 2.5 percent, provided that all alternative options for flattening the slope have been investigated and aquatic life movement/connectivity has been provided when possible (e.g., rock ladders, cross vanes, sills, baffles etc.). Culvert burial is not required when bedrock is present in culvert locations.

Installation of culverts in wetlands shall ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions. When roadways, causeways, or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges shall be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in destabilization of streams or wetlands.



A waiver from the depth specifications in this condition may be requested, in writing, by the permittee and issued by the Corps. This waiver request must be specific as to the reasons(s) for the request. The waiver will be issued if it can be demonstrated that the proposed design would result in less impacts to the aquatic environment. Culverts placed across wetland fills purely for the purposes of equalizing surface water do not have to be buried, but the culverts must be of adequate size and/or number to ensure unrestricted transmission of water.

b**.** Bank-full flows (or less) shall be accommodated through maintenance of the existing bank-full channel cross sectional area. Additional culverts or culvert barrels at such crossings shall be allowed only to receive bank-full flows.



c. Culverts shall be designed and installed in such a manner that the original stream profiles are not altered and allow for aquatic life movement during low flows. The dimension, pattern, and profile of the stream above and below a pipe or culvert shall not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed culvert shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. If the width of the culvert is wider than the stream channel, the culvert shall include multiple boxes/pipes, baffles, benches and/or sills to maintain the natural width of the stream channel. If multiple culverts/pipes/barrels are used, low flows shall be accommodated in one culvert/pipe and additional culverts/pipes shall be installed such that they receive only flows above bankfull.

10. **Utility Lines.** For all NWPs that allow for the construction and installation of utility lines, the following conditions shall be applied:

a. Utility lines consisting of aerial electric power transmission lines crossing navigable waters of the U.S. (which are defined at 33 CFR part 329) must comply with the applicable minimum clearances specified in 33 CFR 322.5(i).

b. The work area authorized by this permit, including temporary and/or permanent fills, will be minimized to the greatest extent practicable. Justification for work corridors exceeding forty (40) feet in width is required and will be based on pipeline diameter and length, size of equipment required to construct the utility line, and other construction information deemed necessary to support the request. The permittee is required to provide this information to the Corps with the initial PCN package.

c. A plan to restore and re-vegetate wetland areas cleared for construction must be submitted with the required PCN. Cleared wetland areas shall be re-vegetated, as appropriate, with species of canopy, shrub, and herbaceous species. The permittee shall not use fescue grass, or any other species identified as invasive or exotic species by the NC Native Plant Society (NCNPS): https://ncwildflower.org/invasive-exotic-species-list/.

d. Any permanently maintained corridor along the utility right of way within forested wetlands shall be considered a loss of aquatic function. A compensatory mitigation plan will be required for all such impacts associated with the requested activity if the activity requires a PCN and the cumulative total of permanent conversion of forested wetlands exceeds 0.1 acre, unless the District Engineer

determines in writing that either some other form of mitigation would be more environmentally appropriate, or the adverse effects of the proposed activity are minimal.

Where permanently maintained corridor within forested wetlands is 0.1 acre or less, the District Engineer may determine, on a case-by-case basis, that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment.

e. When directional boring or horizontal directional drilling (HDD) under waters of the U.S., including wetlands, permittees shall closely monitor the project for hydraulic fracturing or "fracking." Any discharge from hydraulic fracturing or "fracking" into waters of the U.S., including wetlands, shall be reported to the appropriate Corps Regulatory Field Office within 48 hours. Restoration and/or compensatory mitigation may be required as a result of any unintended discharges.

11. **Temporary Access Fills.** The permittee shall submit a PCN to the District Engineer prior to commencing the activity if the activity will involve the discharge of dredged or fill material into more than 0.1 acre of wetlands or 0.02 acre of stream channel for the construction of temporary access fills and/or temporary road crossings. The PCN must include a restoration plan that thoroughly describes how all temporary fills will be removed, how pre-project conditions will be restored, and include a timetable for all restoration activities.

12. **Federal Navigation Channel Setbacks.** Authorized structures and fills located in or adjacent to Federally authorized waterways must be constructed in accordance with the latest setback criteria established by the Wilmington District Engineer. You may review the setback policy at: https://www.saw.usace.army.mil/Missions/Navigation/Setbacks/. This general permit does not authorize the construction of hardened or permanently fixed structures within the Federally Authorized Channel Setback, unless the activity is approved by the Corps. The permittee shall submit a PCN (see General Condition 32) to the District Engineer to obtain a written verification prior to the construction of any structures or fills within the Federally Authorized Channel Setback.

13. **Endangered and Threatened Species**. The NWP General Condition 18 (Endangered Species) states that no activity is authorized under any NWP which ''may affect'' a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. The Wilmington District uses numerous Standard Local Operating Procedures for Endangered Species (SLOPES) and Programmatic Biological Opinions (PBOs) to ensure compliance with General Condition 18. These SLOPES/PBOs have been developed in consultation with the U.S. Fish and Wildlife Service (USFWS) and/or other appropriate state and federal agencies. All current SLOPES/PBOs are listed on the Wilmington District website and will be used, where appropriate, to facilitate/determine ESA Section 7 compliance. All PBOs can be found on our website at:

https://www.sad.usace.army.mil/Missions/Regulatory/North-Carolina/#endangered-species-and-critical-habitat.

14. **West Indian Manatee Protection.** In order to protect the endangered West Indian manatee (*Trichechus manatus*) the Permittee shall implement the USFWS' Manatee Guidelines and strictly adhere to all requirements therein. The guidelines can be found at: https://www.fws.gov/sites/default/files/documents/Manatee%20guidelines%20NC.pdf.

15. **ESA Programmatic Biological Opinions.** The Wilmington District, USFWS, NCDOT, and the FHWA have conducted programmatic Section 7(a)(2) consultation for a number of federally listed species and designated critical habitat (DCH), and programmatic consultation concerning other federally listed species and/or DCH may occur in the future. The result of completed programmatic consultation is a Programmatic Biological Opinion (PBO) issued by the USFWS. These PBOs contain mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" of whichever species or critical habitat is covered by a specific PBO. Authorization under NWPs is conditional upon the permittee's compliance with all the mandatory terms and conditions associated with incidental take of the applicable PBO (or PBOs), which are incorporated by reference in the NWPs. Failure to comply with the terms and conditions associated with incidental take of an applicable PBO, where a take of the federally listed species occurs, would constitute an unauthorized take by the permittee, and would also constitute permittee non-compliance with the authorization under the NWPs. If the terms and conditions of a specific PBO (or PBOs) apply to a project, the Corps will include this/these requirements in any NWP verification that may be issued for a project. For an activity/project that does not require a PCN, the terms and conditions of the applicable PBO(s) also apply to that non-notifying activity/project. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PBO and the ESA. All PBOs can be found on our website at: https://www.sad.usace.army.mil/Missions/Regulatory/North-Carolina/#endangered-species-and-critical-habitat.

16. **Work on Eastern Band of Cherokee Indian Land.**

Notifying NWPs - All PCNs submitted for activities in waters of the U.S. on Eastern Band of Cherokee Indians (EBCI) trust land (i.e., Qualla Boundary and non-contiguous tracts of trust land located in portions of Swain, Jackson, Haywood, Graham and Cherokee Counties), must comply with the requirements of the latest MOU between the Wilmington District and the EBCI.

Non-notifying NWPs - Prior to the use of any non-notifying NWP for activities in waters of the U.S. on EBCI trust land (i.e., Qualla Boundary and non-contiguous tracts of trust land located in portions of Swain, Jackson, Haywood, Graham and Cherokee Counties), all prospective permittees must comply with the requirements of the latest MOU between the Wilmington District and the EBCI; this includes coordinating the proposed project with the

EBCI Natural Resources Program and obtaining a Tribal Approval Letter from the Tribe.

The EBCI MOU can be found at the following URL: https://www.sad.usace.army.mil/Missions/Regulatory/North-Carolina/#cultural-resources.

17. **Sedimentation and Erosion Control Structures and Measures.**

All PCNs will identify and describe sedimentation and erosion control structures and measures proposed for placement in waters of the U.S. The structures and measures should be depicted on maps, surveys or drawings showing location and impacts to jurisdictional wetlands and streams.

D. REGIONAL CONDITIONS APPLICABLE TO NWP 14

a. If appropriate, permittees shall employ natural channel design (see definition below and NOTE below) to the maximum extent practicable for stream relocations. All stream relocation proposals shall include a Relocation and Monitoring Plan and a functional assessment of baseline conditions (e.g., use of the North Carolina Stream Assessment Methodology). Compensatory mitigation may be required for stream relocations.

Natural Channel Design means a geomorphologic approach to stream restoration based on an understanding of valley type, general watershed conditions, dimension, pattern, profile, hydrology and sediment transport of natural, stable channels (reference condition) and applying this understanding to the reconstruction of a stable channel.

NOTE: For more information on Natural Channel Design, permittees should reference North Carolina Stream Mitigation Guidance on the Corps RIBITS (Regulatory In-lieu Fee and Bank Information Tracking System) website or at the following World Wide Web Page: https://ribits.ops.usace.army.mil/ords/f?p=107:2::::::.

b. In designated trout watersheds, a PCN is not required for impacts to a maximum of 0.007 acre (0.02 acres for temporary dewatering) or 1/10-acre of jurisdictional aquatic resources for proposed structures not adjoining, adjacent to, or connected to existing structures. In designated trout waters, the permittee shall submit a PCN (see Regional Conditions C.3. above and General Condition 32) to the District Engineer prior to commencing the activity if: 1) impacts (other than temporary dewatering to work in dry conditions) to jurisdictional aquatic resources exceed 0.007 acre or 1/10-acre, 2) temporary impacts to streams or waterbodies associated with dewatering to work in dry conditions exceed 0.02 acre, 3) the project will involve impacts to wetlands, 4) the primary purpose of the project is for commercial development, 5) the project involves the replacement of a bridge or spanning structure with a culvert or non-spanning structure in waters

of the United States, or 6) the activity will be constructed during the trout waters moratorium (October 15 through April 15).

E. ACTIVITY SPECIFIC REGIONAL CONDITIONS

N/A.

F. SECTION 401 WATER QUALITY CERTIFICATION AND/OR COASTAL ZONE MANAGEMENT ACT CONSISTENCY DETERMINATION CONDITIONS

WQC: North Carolina Division of Water Resources (NCDWR)

- Denied WQCs for NWPs: 17, 21, 34, 38, 43, 49 and 50.
- The Wilmington District did not request WQC for NWPs 1, 2 ,8, 9, 10, 11, 24, 28, 35 and 55. NCDWR did not issue a WQC for NWPs 1, 2, 8, 10, 11, 24, 28 and 55. However, NCDWR denied a certification for NWP 9 and issued a WQC with conditions for NWP 35.
- Issued WQCs with conditions for NWPs: 3, 4, 5, 6, 7, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 25, 27, 29, 30, 31, 32, 33, 35, 36, 37, 39, 40, 41, 42, 44, 45, 46, 48, 51, 52, 53, 54, 57, 58, 59 and 60 (A). These WQC conditions are incorporated as Regional Conditions and the Permittee is responsible for compliance as such.

WQC: Eastern Band of Cherokee Indians (EBCI)

- The Wilmington District did not request WQCs for NWPs 1, 2 ,8, 9, 10, 11, 24, 28, 35 and 55. EBCI did not issue a WQC for NWPs, 1, 2, 8, 9, 10, 11, 24, 28, 35 or 55.
- Issued WQCs with conditions for NWPs: 3, 5, 7, 13, 14, 22, 30, 33, 36, 37, 38, 39, 41, 43, 45, 51, 53, 57, 58, and 59. These WQC conditions are incorporated as Regional Conditions and the Permittee is responsible for compliance as such.
- Issued a WQC with conditions and special conditions for NWP 27.
- Waived WQCs for NWPs: 4, 6, 12, 15, 16, 17, 18, 19, 20, 21, 23, 25, 29, 31, 32, 34, 40, 42, 44, 46, 48, 49, 50, 52, 54, 55, and 60 (A).

CZM: North Carolina Division of Coastal Management (NCDCM)

The CZMA consistency determination and all WQCs can be found at: https://www.sad.usace.army.mil/Missions/Regulatory/North-Carolina/#permitting.

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JOSH STEIN
Governor
D. REID WILSON
Secretary
RICHARD E. ROGERS, JR.
Director

NORTH CAROLINA
Environmental Quality

September 2, 2026

DWR # 20210462v2
Watauga County

North Carolina Department of Transportation
Attn: Chris Wood
801 Statesville Road
Wilkesboro, NC 28655

Delivered via email to: cjwood@ncdot.gov

Subject: **Certificate of Coverage Approval under Water Quality General Certification No. 8569**
Upper Crab Orchard Rd. (SR 1132) Secondary Road Improvement Project, Watauga County

Location: Lat. 36.2013639 N /Long. -81.8046896

Dear Mr. Wood:

This Certificate of Coverage approval is issued to Chris Wood and the North Carolina Department of Transportation, dated September 2, 2026. This Certificate of Coverage authorizes work under General Certification No. 8569 for the impacts listed below and described in your application which was received by the N.C. Division of Water Resources on August 25, 2026, with fee received on August 25, 2026, and within the *Reasonable Period of Time* pursuant to 40 CFR Part 121.6. This certificate is for the purpose and design described in your application. This approval requires you to follow all the conditions listed in the enclosed General Certification No. 8569.

This Water Quality Certification shall expire on the same day as the expiration date of the corresponding Section 404 Permit that is current at the time this Certification is issued. The conditions shall remain in effect for the life of the project, regardless of the expiration date of this Water Quality Certification.

Upon completion of the proposed project, the applicant shall submit a Certificate of Completion and/or shall provide as-built documentation. Certificates of Completion and/or as-built documentation can be submitted via the DWR website: https://edocs.deq.nc.gov/Forms/Certificate-of-Completion.

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The following impacts are hereby approved. No other impacts are approved, including incidental impacts. [15A NCAC 02H .0506(b)]

Type of Impact	Amount Approved Permanent	Amount Approved Temporary	Mitigation Amount Required
Perennial Streams			
S1- Stream A – Pipe Extension	11 linear feet	20 linear feet	00 credits
S2 – Stream B – Pipe Extension	15 linear feet	20 linear feet	00 credits
S3- Stream C- Pipe Extension	25 linear feet	20 linear feet	00 credits
S4 – Stream D – Pipe Extension	14 linear feet	20 linear feet	00 credits
S5- Stream E – New Pipe	12 linear feet	20 linear feet	00 credits
S6 – Stream F – Pipe Extension	25 linear feet	20 linear feet	00 credits
S7 – Stream G – Pipe Extension	15 linear feet	20 linear feet	00 credits
S8 – Stream G – Dissipator Pad	5 linear feet	00 linear feet	00 credits
Totals:	***122 linear feet***	***140 linear feet***	**00 credits**
Wetlands			
Wetland A - Fill	0.02 acres	0 acres	00 credits
Wetland C - New pipe and fill	*0.002 acres*	*0 acres*	00 credits
Totals:	***0.022 acres***	**0 acres**	**00 credits**

Notice regarding the right to contest this 401 Water Quality Certification decision is attached to this letter.

This letter completes the Division's review under Section 401 of the Clean Water Act and 15A NCAC 02H .0500. Please contact Wesley Williams at 336-813-9619 or Wesley.williams@deq.nc.gov if you have any questions or concerns.

Sincerely,

Signed by:
Faith Hardin
3185423002EA45E...

Faith Hardin, Supervisor
401 & Buffer Permitting Transportation Branch
Division of Water Resources, NCDEQ

Enclosures: Notice Regarding The Right To Contest A DWR 401 Water Quality Certification Decision And/Or Buffer Authorization
GC 8569

Electronic cc: Lori Beckwith, USACE Asheville Regulatory Field Office
DWR 401 & Buffer Permitting Branch Electronic file

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NOTICE REGARDING THE RIGHT TO CONTEST A DWR 401 WATER QUALITY CERTIFICATION AND/OR BUFFER AUTHORIZATION

Right of Persons Aggrieved to File a Contested Case for the Decision on a 401 Water Quality Certification and/or Buffer Authorization:
The Division's decision is subject to review under NCGS 150B-23.

Rights of Persons Aggrieved to File a Contested Case: Pursuant to NCGS 150B, Article 3, a party or person aggrieved may commence a contested case by filing a petition under NCGS 150B-23 in the Office of Administrative Hearings within 60 days after the Division provides notice of its decision on an application, as provided in NCGS 150B-23(f). If no contested case is commenced within the required time, the Division's decision is final and is not subject to review.

General Filing Instructions: A petition for contested case hearing must be in the form of a written petition, conforming to NCGS 150B-23, and filed with the Office of Administrative Hearings, 1711 New Hope Church Road, Raleigh NC, 27609, along with a fee in an amount provided in NCGS 150B-23.2. A petition for contested case hearing form may be obtained upon request from the Office of Administrative Hearings or on its website at https://www.oah.nc.gov/hearings-division/filing/hearing-forms. Additional specific instructions for filing a petition are set forth at 26 NCAC Chapter 03.

Service Instructions: A party filing a contested case is required to serve a copy of the petition, by any means authorized under 26 NCAC 03 .0102, on the process agent for the Department of Environmental Quality:

Daniel Hirschman, General Counsel
North Carolina Department of Environmental Quality
1601 Mail Service Center
Raleigh, North Carolina 27699-1601

If the party filing the petition is a person aggrieved other than the recipient of the certificate (the "Permittee"), the party must also serve the Permittee in accordance with NCGS 150B-23(a).

Be aware that other rules or laws may apply to the filing of a petition for a contested case. Additional information is available at https://www.oah.nc.gov/hearings-division/hearing-process/filing-contested-case. Please contact the Office of Administrative Hearings at (984) 236-1850 with all questions regarding the filing fee and/or the details of the filing process.

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STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER RESOURCES

WATER QUALITY GENERAL CERTIFICATION NO. 8569

GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE FOR US ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT NUMBER 14 (LINEAR TRANSPORTATION PROJECTS)

Water Quality General Certification Number 8569 is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Regulations in 15A NCAC 02H .0500 and 15A NCAC 02B .0200 for the discharge of fill material to surface waters and wetland areas as described in the corresponding Nationwide Permit issued pursuant to 33 CFR 330 of the US Army Corps of Engineers regulations.

The State of North Carolina certifies that the specified category of activity will comply with water quality requirements and applicable portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions hereinafter set forth.

Effective date: March 15, 2026

Signed this day: December 15, 2025

By

DocuSigned by:
Richard E. Rogers, Jr.
B2B16AD426A84B6...

Richard E. Rogers, Jr.
Director

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GENERAL CERTIFICATION COVERAGE:

Activities authorized by Coastal Area Management Act (CAMA) General Permits that are eligible for US Army Corps of Engineers Nationwide Permit 14 qualify for coverage under this General Certification as long as they comply with all of the Activity Specific and General Conditions of this Certification listed below.

Activities are eligible for US Army Corps of Engineers Nationwide Permit 14 qualify for coverage under this General Certification unless they meet one of the thresholds listed below. Activities meeting any one (1) of the thresholds or circumstances listed below are not eligible for coverage under this General Certification and therefore require *an Individual* 401 Water Quality Certification from the Division of Water Resources (DWR).

a) If any of the conditions of this General Certification cannot be met; or
b) Total permanent impacts to streams greater than or equal to 300 linear feet; or
c) Total permanent impacts to wetlands equal to or greater than one-half (1/2) acre; or
d) Total permanent impacts to open waters equal to or greater than one-half (1/2) acre; or
e) Any project proposing to satisfy compensatory mitigation through Permittee Responsible Mitigation; or
f) Any high-density project, as determined by the density thresholds and criteria specified in 15A NCAC 02H .1017(4) which triggers all of the following thresholds:
    i. Proposes to disturb one acre or more of land (including a project that disturbs less than one acre of land that is part of a larger common plan of development or sale); and
    ii. Has permanent wetland, stream, or open water impacts; and
    iii. Is proposing new built-upon area; and
    iv. Is not subject to a stormwater management plan review and approval under a state stormwater program[1] or a state-approved local government stormwater program[2], or has vested rights, exemptions, or other legacy rights or exemptions from state or locally implemented stormwater programs or propose to satisfy state or locally-implemented stormwater programs through use of community in-lieu fee programs

For the purposes of the thresholds above (a-f), the Permittee shall account for all impacts from the Single and Complete Project (e.g. impacts from dedicated borrow and waste sites, impacts from associated infrastructure/utilities) as determined by the US Army Corps of Engineers, and all secondary indirect impacts resulting from the proposed activities.

Activities listed under Section I of this General Certification must receive a Certificate of Coverage from DWR prior to initiation of any activities covered by this General Certification.

[1] e.g. Coastal Counties, HQW, ORW, or state-implemented Phase II NPDES
[2] e.g. Delegated Phase II NPDES, Water Supply Watershed, Nutrient-Sensitive Waters, or Universal Stormwater Management Program

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I. NOTIFICATION AND REQUIREMENTS FOR CERTIFICATE OF COVERAGE:

Activities listed in this Section must obtain a Certificate of Coverage from DWR prior to initiation of any activities covered by this General Certification.

If the activity is authorized or proposed for authorization by a Coastal Area Management Act (CAMA) Major Permit, then skip to k) in this list.

a) Total permanent impacts to streams greater than or equal to 150 linear feet, including any topographic/slope stabilization or in-stream stabilization needed for stream crossings; or
b) Total temporary and permanent impacts to wetlands equal to or greater than one-tenth (1/10) of an acre; or
c) Total temporary and permanent impacts to open waters and/or ditches subject to Section 404 of the Clean Water Act (CWA) equal to or greater than one-half (1/2) of an acre; or
d) Any impacts to streams or wetlands from excavation or dredging other than excavation that is conducted as preparation for installing permanent fill or structures; or
e) Any stream restoration or relocation, other than stream relocations that are conducted for the purpose of proper culvert installation, alignment, protection, repair or maintenance where the relocation length is equal to or less than 50 feet in length and the relocated stream is designed and installed based on current natural channel techniques; or
f) Any permanent impacts to waters, or to wetlands adjacent to waters, designated as: ORW (including SAV), HQW (including PNA), SA, WS-I, WS-II, or North Carolina or National Wild and Scenic River; or
g) Any permanent impacts to waters, or to wetlands adjacent to waters, designated as Trout unless:
    i. The impacts are not adjacent to any existing structures; and
    ii. All conditions of this General Certification can be met, including adherence to any moratoriums as stated in General Condition II.9; and
h) Any permanent impacts to coastal wetlands [15A NCAC 07H .0205], or Unique Wetlands (UWL) [15A NCAC 02B .0231]; or
i) Any sediment and erosion control measures installed in wetlands or waters beyond the footprint of temporary and/or permanent wetland and/or waters impacts covered by this General Certification; or
j) Any impacts to streams and/or open waters that are subject to state regulated riparian buffers in the Neuse, Tar-Pamlico, or Catawba River Basins or in the Randleman Lake, Jordan Lake or Goose Creek Watersheds (or any other basin or watershed with State Regulated Riparian Area Protection Rules [15A NCAC 02B .0714; 15A NCAC 02B .0734; 15A NCAC 02B .0614; 15A NCAC 02B .0724; 15A NCAC 02B .0267; 15A NCAC 02B .0607] in effect at the time of application) *unless*:

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i. The activities are listed as "EXEMPT" or "DEEMED ALLOWABLE" from these rules; or
ii. A Buffer Authorization Certificate is issued by the NC Division of Coastal Management (DCM); or
iii. A Buffer Authorization Certificate, Certificate with Exception, or Minor Variance is issued by a delegated or designated local government implementing a state riparian buffer program pursuant to 143-215.23; or
iv. Site access, equipment storage, and work is done solely from or in the water, avoiding all land disturbance in or near the buffer.

k) Activities authorized or proposed for authorization by a Coastal Area Management Act (CAMA) Major Permit **except for** projects that are covered by any one of the following criteria:
i. Boat Ramps and associated necessary infrastructure (i.e. roads and parking lots) that comply with all of the following:
A. Excavation or fill of wetlands and/or open water area is less than 500 square feet total; and
B. Excavation or fill of coastal wetlands (as defined in 15A NCAC 07H .0205) is equal to or less than 100 square feet;
ii. Living shorelines/marsh sills that comply with all of the following:
A. the landward edge of the sill does not extend waterward of the normal high water or normal water line more than 30 feet or five feet waterward of the existing wetlands whichever distance is greater; and
B. the activity will not involve the excavation or fill of any Submerged Aquatic Vegetation (SAV); and
C. the activity will not involve the excavation or fill of significant shellfish resources (as identified by the Division of Marine Fisheries); and
D. the activity does not result in any fill landward of the toe of the sill alignment; or
iii. All other shoreline protection measures not covered by item ii above that comply with all of the following:
A. tie into existing bulkheads, land, or other shoreline protection measures or do not extend waterward of the normal high water or normal water line more than 10 feet; and
B. the activity will not involve the excavation or fill of any Submerged Aquatic Vegetation (SAV); and
C. the activity will not involve the excavation or fill of significant shellfish resources (as identified by the Division of Marine Fisheries); and
D. Excavation or fill of wetlands and/or open water area is less than 500 square feet total; and
E. Excavation or fill of coastal wetlands (as defined in 15A NCAC 07H .0205) is equal to or less than 100 square feet;
iv. Piers and docks designed to accommodate up to, but not exceeding, 10 vessels that comply with all of the following:

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A. the water depth is equal to or greater than two feet of water at normal low water level or normal water level (whichever is applicable); and
B. they are not located within Outstanding Resource Waters (ORW) as defined in 15A NCAC 02B. 0225;

v. Any other projects that involve only shading of waters or wetlands that are not covered by item (iv) above;
vi. Maintenance dredging to restore the documented historical dimensions of the dredged channel of less than 0.5 acres of open water or non-vegetated wetlands, that comply with all of the following:
A. the activity will not involve the excavation or fill of any Submerged Aquatic Vegetation (SAV); and
B. the activity will not involve the excavation or fill of significant shellfish resources (as identified by the Division of Marine Fisheries); and
vii. Utility lines as long as all impacts are temporary;
viii. New development (impacts shall include the entire project, including but not limited to: boat ramps, bulkheads or other shoreline stabilization measures) that comply with all of the following:
A. Excavation or fill of non-coastal wetlands and/or open water area is less than 1/10 acre total; and
B. Excavation or fill within a Coastal Shoreline Area of Environmental Concern (AEC) is no more than 2,000 square feet

For the purposes of the thresholds above (a-k), the Permittee shall account for all impacts from the Single and Complete Project (e.g. impacts from dedicated borrow and waste sites, impacts from associated infrastructure/utilities) as determined by the US Army Corps of Engineers, and all secondary indirect impacts resulting from the proposed activities.

A note: In accordance with 15A NCAC 02H .0506(c) and Session Law 2017-10, compensatory mitigation is required for losses from the entire single and complete project of greater than or equal to 300 linear feet of perennial streams and/or greater than or equal to 0.10 acre of wetlands, whether a Certificate of Coverage or an Individual is required.

II. ACTIVITY SPECIFIC CONDITIONS

1. Disturbed streambanks shall be stabilized at the end of each working day to ensure downstream water quality standards are maintained throughout construction. Streambanks shall be permanently stabilized with native riparian vegetation when practical. Temporary vegetation utilized for immediate stabilization and erosion control shall consist of native vegetation or annual vegetation such that it will not compete with permanent vegetation. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

2. If this Water Quality Certification is used to access residential, commercial or industrial building sites, then all parcels owned by the permittee that are part of the single and complete project authorized by this Certification must be buildable without additional impacts to streams or wetlands.

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Citation: 15A NCAC 02H .0502(a);15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

If this Water Quality Certification is used for utility-related impacts, then the following Activity Specific Conditions shall apply to those impacts.

3. Any construction corridor that is parallel to a stream or open water shall not be closer than 10 feet to the top of bank or ordinary high-water mark. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

4. Where there are temporary or permanent impacts from stream crossings, underground utility lines shall cross the stream channel at a near-perpendicular direction (i.e., between 75 degrees and 105 degrees to the stream bank). Utility line replacements within existing easements or alignments may follow the existing alignments. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

5. Construction corridors in wetlands and/or across stream channels shall be minimized to the maximum extent practicable and shall not exceed 40 feet wide.

   For construction corridors in wetlands and across stream channels, stumps shall be grubbed only as needed to install the utility line, and remaining stumps shall be cut off at grade level. The general stripping of topsoil within wetlands along the construction corridor is prohibited. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

6. Permanent maintained access corridors in wetlands and across stream channels shall be restricted to the minimum width practicable and shall not exceed 30 feet wide for underground utilities. For parallel adjacent lines with less than 20 feet between them, the permanent maintained corridor shall be restricted to the minimum width practicable not to exceed 15 feet from the edge of the outer most lines. Parallel adjacent lines with 20 feet or more between them shall be treated as individual lines with the access corridor the minimum width practicable not to exceed 30 feet wide for each line. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

7. For all utility lines constructed within wetlands, an anti-seep collar shall be placed at the downstream (utility line gradient) wetland boundary and every 150 feet up the gradient until the utility exits the wetland. Anti-seep collars may be constructed with class B concrete, compacted clay, PVC pipe, or metal collars. Wetland crossings that are directionally drilled, and perpendicular wetland crossings that are open cut and less than 150 feet long do not require anti-seep collars. The compacted clay shall have a specific infiltration of 1×10^{-5} cm/sec or less. A section and plan view diagram is attached for the anti-seep collars.

   The following specifications shall apply to class B concrete:
   i. Minimum cement content, sacks per cubic yard with rounded coarse aggregate 5.0
   ii. Minimum cement content, sacks per cubic yard with angular coarse aggregate 5.5
   iii. Maximum water-cement ratio gallons per sack 6.8
   iv. Slump range 2" to 4"
   v. Minimum strength - 28-day psi 2,500

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Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)

8. The permittee shall restore wetland contours to pre-construction conditions. Any excess material will be removed to a high ground disposal area.

   The mixing of topsoil and subsoils within the wetlands along utility corridors shall be minimized to the greatest extent practical. During excavation, the soils shall be placed on fabric to minimize impacts whenever possible. Topsoil excavated from utility trenches will be piled separately from subsoils and will be backfilled into the trench only after the subsoils have been placed and compacted. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

III. GENERAL CONDITIONS

1. For all activities that require a Certificate of Coverage under Section I of this General Certification: The Certificate of Coverage is issued specifically for the plans, specifications, and associated application materials for the proposed project approved by DWR by the issuance of the COC. Any final construction plans for a project must include or reference the application and plans submitted to the DWR. The Permittee must evaluate all other acquired permits to ensure that they are consistent with the plans submitted to the DWR, and all relative impacts are accounted for and shown on the final construction plans. Any modifications or additional impacts to streams and/or wetlands within the project require the permittee to notify the DWR and may require submission of a new application package with the appropriate fee to redetermine eligibility under this General Certification. *Citation: 15A NCAC 02H .0506(b)(2) and (3); 15A NCAC 02H .0507(c)*

2. If the property is sold, the Permittee shall provide the new owner with a copy of this General Certification and all plans and specifications incorporated by reference for all activities that require a Certificate of Coverage under Section I of this General Certification. The Permittee may transfer a certificate of coverage issued under this General Certification to the new owner by submitting a letter to the Division with the following statement: *"At the time the property is transferred, the terms and conditions of this 401 Individual Water Quality General Certification, including the responsibility to ensure compliance, are binding on the new owner(s) of the property."* The letter shall be signed and dated by both the transferee and the new owner. *Citation: 15A NCAC 02H .0507(d)(2)*

3. For all projects that include multiple parcels and/or lots, including transportation and/or utility-related projects installed as infrastructure for multiple parcels and/or lots, deed notifications or similar mechanisms shall be placed on all lots/parcels that include jurisdictional wetlands, streams, open waters, and state-regulated riparian buffers within the overall project boundaries. These mechanisms shall be put in place at the time of recording of the property or individual parcels, whichever is appropriate. *Citation: 15A NCAC 02H .0502(a); 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

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4. The Permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Director), upon the presentation of credentials and other documents as may be required by law, to: *Citation: 15A NCAC 02H .0502(e); 15A NCAC 02H .0507(c)*
   a. Enter, at reasonable times, upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this certificate;
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this certificate;
   c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this certificate; and
   d. Sample or monitor at reasonable times, for the purposes of assuring certificate compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location

5. In accordance with 15A NCAC 02H .0506(c) and Session Law 2017-10, compensatory mitigation is required for losses from the entire single and complete project of greater than or equal to 300 linear feet of perennial streams and/or greater than or equal to 0.10 acre of wetlands. For linear publicly owned and maintained transportation projects that have not been determined to be part of a larger common plan of development, the stream mitigation threshold is applied per perennial stream. The Compensatory Mitigation Responsibility Transfer (CMRT) Form(s) attached to the Certificate of Coverage issued for a specific project, shall be completed and provided to DWR prior to ***any*** impacts occurring. If the Mitigation Provider specified in the CMRT Form(s) changes after issuance of the Certificate of Coverage or Individual Certificate with MRT Form, then the Permittee shall request a revised CMRT Form from DWR prior to conducting any impacts. *Citation: 15A NCAC 02H .0506(c); 15A NCAC 02H .0507(c)*

6. For High Density Development projects subject to a State, or State approved Local Government Delegated Program, the Permittee shall secure an *approved* stormwater management plan (SMP) from the appropriate agency ***before any*** impacts authorized in this Certification occur. Before any permanent building or other permanent structure is occupied at the site the permanent stormwater management control measures or devices for the building and/or structures shall be constructed and operational. If any Erosion and Sediment Control devices share locations with any of the Stormwater Control Measures, the area must be restored to the approved stormwater design condition within 30 days of close-out of the Erosion and Sediment Control Plan. *Citation: 15A NCAC 02H .0506(b)(2) and (3); 15A NCAC 02H .0507(c)*

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7. For phased projects with conceptual future phases, when final design plans are completed, the Permittee shall ensure that final designs shall reflect all appropriate avoidance and minimization of impacts to wetlands, streams, and other surface waters. For projects that have been issued a Certificate of Coverage under this General Certification, the Permittee shall submit a request for a modified Certificate of Coverage if the impacts from the final design differ from those identified in the existing Certificate of Coverage. No construction activities (including temporary impacts) shall begin at such impact locations until a new Certificate of Coverage has been secured. *Citation: 15A NCAC 02H .0506(b)(2) and (3); 15A NCAC 02H .0507(c)*

8. All wetlands, streams, and surface waters located within the limits of disturbance and within 50 feet of the limits of disturbance/construction area on the project site shall be clearly marked (example- orange fabric fencing) prior to any land disturbing activities. The marking/fencing shall be maintained until the project or project phase is completed. Impacts to areas within the marked area/fencing are prohibited unless otherwise authorized by this certification. *Citation: 15A NCAC 02H .0506(b)(2); 15A NCAC 02H .0507(c)*

9. When requested by DWR, the Permittee and/or authorized agent shall schedule a pre-construction meeting with DWR, shall contact the appropriate DWR Regional Office upon project commencement of construction, shall submit a Certificate of Completion and/or shall provide as-built documentation. *Citation: 15A NCAC 02H .0502(e); 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

10. For projects that include draining a pond or lake, appropriate erosion and sediment control measures shall be utilized while draining the pond or lake to ensure limited impact to downstream waters as well as to native aquatic species. Such measures shall also be utilized to avoid any sediment release into downstream waters as a result of pond draining. The permittee shall observe any natural channel re-establishment, or utilize natural channel construction techniques, to ensure that the jurisdictional stream channel above and below the drained pond remain stable, and that no additional impacts occur within the natural stream channel as a result of draining the pond. The Permittee shall consult with NCWRC prior to the relocation or release of any aquatic species during pond draining or dam removal activities. During pond or lake refill, sufficient flow shall be continually released to the receiving stream to ensure aquatic life survival and maintenance of biological integrity. *Citation: 15A NCAC 02H .0506(b)(2); 15A NCAC 02H .0507(c)*

11. The permittee shall report to the appropriate DWR Regional Office any noncompliance with, and/or any violation of, stream or wetland standards [15A NCAC 02B .0200], including but not limited to sediment impacts to streams or wetlands. Information shall be provided orally within 24 hours (or the next business day if a weekend or holiday) from the time the permittee became aware of the non-compliance circumstances. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

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12. A copy of this General Certification, and when applicable, the Certificate of Coverage, shall be retained on site during the construction and maintenance of this project, or with the project manager, and be available for inspection at all times. The Permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this General Certification. If the Permittee becomes aware of any inability to comply with any of the conditions of this General Certification, they must notify the appropriate Regional Office within 24 hours (or the next business day if a weekend or holiday) from the time the Permittee becomes aware of the circumstances. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

13. No additional temporary or permanent impacts from waste, spoil, solids, fill, excavation, or staging of equipment, shall occur in wetlands or waters beyond the footprint of the impacts (including temporary impacts) identified in a Certificate of Coverage; or for projects that do not require a Certificate of Coverage; beyond the thresholds established for use of this General Certification. *Citation: 15A NCAC 02H .0506; 15A NCAC 02H .0507(c)*

14. All activities shall be in compliance with any applicable State Regulated Riparian Buffer Rules in Chapter 2B of Title 15A in the North Carolina Administrative Code. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

15. When applicable, all construction activities shall be performed and maintained in full compliance with G.S. Chapter 113A Article 4 (Sedimentation Pollution Control Act of 1973). Regardless of applicability of the Sedimentation Pollution Control Act, all projects shall incorporate appropriate Best Management Practices for the control of sediment and erosion so that no violations of state water quality standards, statutes, or rules occur.

    Design, installation, operation, and maintenance of all sediment and erosion control measures shall be equal to or exceed the requirements specified in the most recent version of the *North Carolina Erosion and Sediment Control Planning and Design Manual*, or the *North Carolina Department of Transportation Erosion and Sediment Control Design and Construction Manual*.

    Appropriate measures should be installed prior to any land clearing activities to protect wetlands, streams, and/or buffers from turbidity and/or sedimentation. These measures should be routinely inspected and properly maintained, and excavated materials should be contained outside wetland, stream, and/or buffer boundaries.

    For installation of bridges that involve driving or drilling activities within stream channels, open waters, or along streambanks turbidity curtains shall be installed within the surface water.

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All devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) sites, including contractor-owned or leased borrow pits associated with the project. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.

For borrow pit sites, the erosion and sediment control measures shall be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual.* Reclamation measures and implementation shall comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.

If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNAs), SA, WS-I, WS-II, High Quality Waters (HQW), or Outstanding Resource Waters (ORW), then the sedimentation and erosion control designs shall comply with the requirements set forth in 15A NCAC 04B .0124, *Design Standards in Sensitive Watersheds. Citation: 15A NCAC 02H .0506(b)(2); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231*

16. Sediment and Erosion Control Measures (S&EC) in wetlands or waters should be avoided to the maximum extent possible and any S&EC occurring in wetlands or waters shall be restored to pre-existing conditions upon completion of the project. The Permittee shall utilize sediment and erosion control measures that avoid and minimize the need for the placement of silt fence along streams at the normal water level. Where measures are placed within authorized impact areas then placement of such measures shall not be conducted in a manner that results in a loss of function of any wetlands, streambeds, or streambanks. Any erosion control measures, including silt fence, installed within wetlands shall be removed from wetlands and the natural grade restored and revegetated within two (2) months of the date the appropriate sediment and erosion control program has released the specific area within the project to ensure wetland standards are maintained upon completion of the project. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231*

17. Erosion control matting shall not be placed within a stream bed. Erosion control matting that incorporates plastic mesh and/or plastic twine shall not be used along streambanks or within wetlands. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

18. If the project is covered by NPDES Construction Stormwater Permit Number NCG010000 or NPDES Construction Stormwater Permit Number NCG250000, full compliance with permit conditions including the erosion and sedimentation control plan, inspections and maintenance, self-monitoring, record keeping and reporting requirements is required. *15A NCAC 02H .0506(b) and (c); 15A NCAC 02H .0507(c)*

19. The North Carolina Department of Transportation (NCDOT) shall maintain full compliance with the conditions related to construction activities and post construction stormwater design, construction and maintenance, within the most recent version of their Individual NPDES Stormwater Permit Number NCS000250. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231*

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20. For projects impacting waters classified by the NC Environmental Management Commission as High Quality Waters (HQW), including Water Supply I or II (WSI, WSII) and/or as Outstanding Resources Waters (ORW) post construction stormwater shall be managed in accordance with 15A NCAC 02B .0224(d) or .0225 as applicable.

21. All work in or adjacent to streams, ponds, lakes, and reservoirs shall be conducted so that the work area is isolated from surface waters. Approved best management practices from the most current version of the DEMLR *NC Erosion and Sediment Control Planning and Design Manual*, or the *NC Department of Transportation Best Management Practices For Construction and Maintenance Activities Manual*, such as sandbags, rock berms, cofferdams, pump-arounds, and other diversion structures shall be used to minimize excavation in flowing water. Water that comes in contact with the work area shall be treated through an appropriate sediment/erosion control measure (sediment basin, filter bag, etc) prior to discharging to a surface water. All temporarily disturbed areas for the purpose of isolation/dewatering shall be restored to original grade, including each stream's original cross-sectional dimensions, planform pattern, and longitudinal bed profile. All temporarily impacted sites shall be restored and stabilized with native vegetation as practicable. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200*

22. For all activities that require a Certificate of Coverage under Section I of this General Certification: *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 04B .0125*

    The Permittee shall allow NCWRC and/or DMF to implement pre-construction species surveys and relocations. The Permittee shall adhere to NCWRC and/or DMF recommended moratoria. If NCWRC and/or DMF provides recommended design modifications to protect federally/state listed aquatic species, the permittee shall implement these to the degree possible. If the recommended conditions cannot be met, a project proponent may apply for coverage under an individual 401 water quality certification.

    For all other activities:

    Work within a designated trout watershed as identified by the Wilmington District of the US Army Corps of Engineers or work within identified state or federal endangered or threatened species habitat shall be coordinated with NCWRC and/or DMF prior to initiating of project activities.

    The Permittee shall adhere to NCWRC and/or DMF recommended moratoria. Exceptions to this condition require written approval by the resource agency responsible for the given moratorium. If activities must occur during periods of high biological activity of aquatic species (e.g. sea turtle nesting, fish spawning, or bird nesting) all biological surveys, relocations, and/or monitoring requested by the state agency must be conducted.

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23. Culverts shall be designed and installed in such a manner that the original stream profiles are not altered and allows for aquatic life movement during low flows. The dimension, pattern, and profile of the stream above and below a pipe or culvert shall not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed culvert shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. If the width of the culvert is wider than the stream channel, the culvert shall include multiple boxes/pipes, baffles, benches and/or sills to maintain the natural width of the stream channel. If multiple culverts/pipes/barrels are used, low flows shall be accommodated in one culvert/pipe and additional culverts/pipes shall be installed such that they receive only flows above bankfull.

    Placement of culverts and other structures in streams shall also meet one of the following requirements:

    a. For structures less than 72" in diameter/width and in area where topographic constraints dictate culvert slopes will be greater than 2.5%, culverts shall be installed "at grade" such that low flow conditions in the stream are maintained provided that all alternative options for flattening the slope have been investigated and aquatic life movement/connectivity has been provided when possible (e.g. rock ladders, cross-vanes, sills, baffles etc.); or
    b. When bedrock is present in culvert locations, culvert burial is not required, provided that there is documentation of the presence of bedrock.
    c. For all other culverts:
        i. Culverts with a diameter greater than 48 inches shall be below the elevation of the streambed by one foot
        ii. Culverts with diameter less than or equal to 48 inches shall be below the streambed by 20% of the culvert diameter

    If a culvert outlet is submerged within a pool or scour hole and designed to provide for aquatic passage, then culvert burial into the streambed is not required.

    Documentation such as a location map of the culvert, culvert profile drawings, slope calculations, geotechnical reports, photographs, etc. shall be provided to DWR upon written request.

    For culvert replacements within the same location/footprint, and of similar length, culverts shall be designed and installed to meet the above requirements of this Condition unless prohibited by existing conditions on site, such as existing infrastructure or topographic constraints.

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Installation of culverts in wetlands shall ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions. When roadways, causeways, or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges shall be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in destabilization of streams or wetlands.

The establishment of native woody vegetation and other soft stream bank stabilization techniques shall be used where practicable instead of rip-rap or other bank hardening methods. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

24. Bridge piles and bents shall be constructed using driven piles (hammer or vibratory) or drilled shaft construction methods. More specifically, jetting or other methods of pile driving are prohibited under this General Certification. *15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200*

25. Unless already approved by an NPDES permit, bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means to the maximum extent practicable (e.g. grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. This condition may be waived with prior written approval from the NCDWR. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

26. Application of fertilizer to establish planted/seeded vegetation within disturbed riparian areas and/or wetlands shall be conducted at agronomic rates and shall comply with all other Federal, State and Local regulations. Fertilizer application shall be accomplished in a manner that minimizes the risk of contact between the fertilizer and surface waters. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0231*

27. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in, or adjacent to, surface waters is prohibited. *Citation: 15A NCAC 02H.0506(b)*

28. If concrete is used during construction (including bulkhead components, such as deadman anchors, tie-back systems and concrete caps), then all necessary measures shall be taken to isolate the concrete from waters of the state by maintaining a dry work area to prevent direct contact between curing concrete and surface waters. Drill slurry and water that inadvertently contacts uncured concrete shall not be discharged to waters of the state. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills. Any water that contacts uncured concrete shall be captured, treated, and disposed of properly. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200; 15A NCAC 02B .0231*

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29. All temporary pipes, culverts, rip-rap pads etc. in streams shall be installed so as not to restrict stream flow or installed in such a manner that restricts aquatic life movement during low flow conditions. All temporary pipes and/or culverts shall be installed as outlined in the most recent edition of the *North Carolina Erosion and Sediment Control Planning and Design Manual* or the *North Carolina Surface Mining Manual* or the *North Carolina Department of Transportation Best Management Practices for Construction and Maintenance Activities. Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

30. All temporary fill and temporary culverts shall be removed, and the impacted area shall be returned to natural conditions, within 60 calendar days after the temporary impact is no longer necessary. The impacted areas shall be restored to original grade, including each stream's original cross-sectional dimensions, planform pattern, and longitudinal bed profile. All temporarily impacted sites shall be restored and stabilized with native vegetation when practicable. For all areas where wetlands are impacted by temporary roads constructed by temporary fill material, the Permittee shall remove the fill material and conduct activities necessary to restore preconstruction hydrology by addressing soil compaction. When temporary fill has been added to wetlands, or heavy equipment has been placed within a wetland, the Permittee shall ensure restoration of preconstruction soil conditions when restoring wetland areas. Upon restoration of the wetland, the Permittee shall inspect the area quarterly for a minimum of two years to document successful restoration. The Permittee shall provide documentation of inspections to DWR when requested. The monitoring requirement can be relieved with review and written approval by DWR. If the area is not restored to preconstruction conditions the impacts shall be considered permanent, and the Permittee shall request a modified Certificate of Coverage from DWR. With prior written approval from DWR, removal of temporary fill and temporary culverts and restoration of the impacted area may be postponed to accommodate moratorium periods. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

31. Demolition of existing structures, such as culvert or bridge removal, shall be conducted to ensure water quality standards are maintained. NCDOT activities shall adhere to NCDOT's *Best Management Practices for Construction and Maintenance Activities. Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200*

32. Any rip-rap or other armoring materials required for proper culvert placement, stream stabilization, or restoration of temporarily disturbed areas shall be restricted to the area directly impacted by the construction activity covered by this General Certification. All rip-rap or other non-natural armoring material placed in streams shall be placed such that the original streambed elevation and streambank contours are restored, and that the finished elevation of the rip rap shall not exceed that of the original stream bed. All rip-rap or other armoring materials shall consist of clean rock or masonry material free of debris or toxic pollutants. Placement of rip-rap or other armoring materials shall not result in de-stabilization of the stream bed or banks upstream or downstream of the area or be installed in a manner that precludes aquatic life passage. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

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33. Any rip-rap or other non-natural armoring material (i.e. gabion baskets, revetments, bulkheads, seawalls, retaining walls) used for stream or shoreline stabilization shall be of a size and density to prevent movement by wave, current action, or stream flows, and shall consist of clean rock or masonry material free of debris or toxic pollutants. Rip-rap or other armoring materials shall not be installed in the streambed except in specific areas required for velocity control and to ensure structural integrity of bank stabilization measures. Any rip-rap or other armoring materials placed in the streambed shall be such that the finished elevation of the rip rap or other armoring materials shall not exceed that of the original stream bed. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0201*

34. Rip-rap groins proposed in accordance with 15A NCAC 07H .1401 (NC Division of Coastal Management General Permit for construction of Wooden and Rip-rap Groins in Estuarine and Public Trust Waters) shall meet all the specific conditions for design and construction specified in 15A NCAC 07H .1405. *Citation: 15A NCAC 02H .0507(c); 15A NCAC 07H .1400*

35. All mechanized equipment operated near surface waters shall be inspected and maintained regularly to prevent contamination of surface waters from fuels, lubricants, hydraulic fluids, or other toxic materials. Construction shall be staged in order to minimize the exposure of equipment to surface waters to the maximum extent practicable. Fueling, lubrication, and general equipment maintenance shall be performed in a manner to prevent, to the maximum extent practicable, contamination of surface waters by fuels and oils. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0200*

36. Heavy equipment working in wetlands shall be placed on mats or non-impact equipment shall be used to ensure no disturbance and/or compaction of soil from equipment except within the footprint of the impacts covered by this Certification. Heavy equipment necessary for in stream activities shall be operated from the banks to the maximum extent practical and in no cases shall cause unstable stream banks or a violation of water quality standards. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0231*

37. In accordance with G.S. 143-215.85(b), the Permittee shall report any petroleum spill of 25 gallons or more; any spill regardless of amount that causes a sheen on surface waters; any petroleum spill regardless of amount occurring within 100 feet of surface waters; and any petroleum spill less than 25 gallons that cannot be cleaned up within 24 hours. *Citation: 15A NCAC 02H .0507(c); N.C.G.S 143-215.85(b)*

38. For all dam removal projects meeting the definition under G.S. 143-215.25 and requirements under G.S. 143-215.27 of a professionally supervised dam removal, the applicant shall provide documentation that any sediment that may be released has similar or lower level of contamination than sediment sampled from downstream of the dam in accordance with Session Law 2017-145. *Citation: 15A NCAC 02H .0502; 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC02B .0200; S.L. 2017-145;*

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39. The Permittee and their authorized agents shall conduct all activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act), and any other appropriate requirements of State and Federal Law. *Citation: 15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)*

IV. DEFINITIONS

Temporary Impacts: Any impact that temporarily disturbs a stream, wetland, or open water and returns the disturbed area to pre-construction conditions, form and function or improved form and function within a duration that will ensure minimal disturbance to ecological function, including biological transport, migration, and reproduction.

Permanent Impacts: Any impact that modifies the form or function of a stream, wetland, or open water in a permanent manner, or for a duration that is sufficiently long to disrupt natural processes within the surface water. Examples include culverts, fill, riprap, streambank or shoreline stabilization, dredging, relocations, restoration. Permanent impacts may (1) improve the function of surface waters, such as stream and wetland restorations, (2) be neutral to the function of the surface waters, or (3) cause a reduction or loss of function of surface waters.

Secondary Indirect Impacts – Effects that are caused by the activity and are later in time or farther removed in distance but are still reasonably foreseeable. Secondary indirect impacts may (1) improve the function of surface waters, such as stream and wetland restorations, (2) be neutral to the function of the surface waters, or (3) cause a reduction or loss of function of surface waters.

Stream Restoration - the process of converting an unstable, altered, or degraded stream corridor, including adjacent riparian zone and flood-prone areas, to its natural or referenced stable conditions considering recent and future watershed conditions. This process also includes restoring the geomorphic dimension, pattern, and profile as well as biological and chemical integrity, including transport of water and sediment produced by the stream's watershed in order to achieve dynamic equilibrium. 'Reference' or 'reference reach' means a stable stream that is in dynamic equilibrium with its valley and contributing watershed. A reference reach can be used to develop natural channel design criteria for stream restoration projects.

Stream Relocation - Stream relocation is when a stream is moved laterally to a new location to allow a project, or part of a project, to be constructed in the stream's former location. For permitting purposes, stream relocations may be considered a loss of function pursuant to 15A NCAC 2H .0506(c) depending on the documented condition and location of the existing stream and the proposed design and success of the relocated stream.

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V. ADMINISTRATIVE PROVISIONS

In accordance with 15A NCAC 02H .0506(b), the Director of the North Carolina Division of Water Resources may require submission of an application for an Individual Certification for any project if, based on the unique characteristics of the project, it is determined by the Director that the conditions in this general certification will not ensure that the proposed activity will comply with state water quality standards, which includes designated uses, numeric criteria, narrative criteria and the state's antidegradation policy.

This General Certification does not relieve the permittee of the responsibility to obtain all other required Federal, State, or Local approvals before proceeding with the project, including those required by, but not limited to, Sediment and Erosion Control, Non-Discharge, Water Supply Watershed, Division of Coastal Management and Trout Buffer regulations.

This General Certification, and any associated certificates of coverage, neither grants nor affirms any property right, license, or privilege in any waters, or any right of use in any waters. This General Certification does not authorize any person to interfere with the riparian rights, littoral rights, or water use rights of any other person and does not create any prescriptive right or any right of priority regarding any usage of water. This General Certification shall not be interposed as a defense in any action respecting the determination of riparian or littoral rights or other rights to water use. No consumptive user is deemed by virtue of this General Certification to possess any prescriptive or other right of priority with respect to any other consumptive user regardless of the quantity of the withdrawal or the date on which the withdrawal was initiated or expanded.

This General Certification shall expire on the same day as the expiration date of the corresponding Nationwide Permit. The conditions in effect on the date of issuance of Certification for a specific project shall remain in effect for the life of the project, regardless of the expiration date of this General Certification. For purposes of this paragraph for projects that do not require issuance of a certificate of coverage, the date of issuance shall be deemed to be the date that activities covered by this General Certification were initiated. This General Certification is rescinded when the US Army Corps of Engineers reauthorizes the corresponding Nationwide Permit or when deemed appropriate by the Director of the Division of Water Resources, consistent with the provisions of 15A NCAC 2H .0507.

Non-compliance with or violation of the conditions herein set forth by a specific project may result in revocation of any Certificate of Coverage issued under this General Certification for the project and may also result in criminal and/or civil penalties.



North Carolina Wildlife Resources Commission

M. Kyle Briggs, Executive Director

August 28, 2025

Lori Beckwith
U.S. Army Corps of Engineers, Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801

Kylie Yankura
North Carolina Department of Environmental Quality, 401 and Buffer Transportation Permitting Branch
450 Hanes Mill Road, Suite 300
Winston-Salem, NC 27105

SUBJECT: Comments on GP/WQC Application for widening and paving of SR 1132 (Upper Crab Orchard Road), Watauga County (11C.095115)
DWR 20210462 ver.1

The North Carolina Department of Transportation (NCDOT) applied for a 404 Permit and 401 Certification for the subject project. The North Carolina Wildlife Resources Commission's (NCWRC) comments are offered to help conserve the wildlife resources affected by the project and to promote wildlife-based recreation in accordance with applicable provisions of the Clean Water Act of 1977 (33 U.S.C. 466 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

The widening and paving of SR 1132 will require culvert replacements and extensions in tributaries to Craborchard Creek (Class C Tr). Some of the new culverts will not be embedded into the stream grade due to high stream slopes.

Craborchard Creek supports naturally reproducing Brown Trout (*Salmo trutta*) according to a survey done in 2016. The project will not directly impact this creek but will require work in small unnamed tributaries. While being near a trout population, we believe the work will not need to adhere to a trout moratorium provided sediment and erosion control measures are effective and maintained during construction.

The NCWRC requests that the following conditions be included in authorizations to help conserve trout and other aquatic resources affected by the project:

1. Applicable measures from the current *NCDOT Erosion and Sediment Control Design and Construction Manual* should be adhered to. *Design Standards in Sensitive Waters* should be incorporated into the project's erosion control to help ensure protection of trout spawning (see part (d) of 15A NCAC 04B .0124).
2. In accordance with standard GC conditions, matting used in riparian areas should not contain nylon mesh because it entangles and kills wildlife. Coir matting should be used on disturbed stream banks that are steep or susceptible to high water. Matting should be anchored with wooden stakes according to NCDOT specifications.
3. Heavy equipment needs to be well-maintained and concrete pouring needs to be closely monitored to avoid and quickly mitigate fuel, fluid, or wet concrete losses in or near streams.
4. Removal of vegetation in riparian areas and wetlands should be minimized.
5. Sandbags, rock berms, cofferdams, or other diversion structures should be used where excavation or other periods of extended stream disturbance has the potential for downstream sedimentation.
6. The natural dimension, pattern, and profiles of streams and the grades of wetlands should be restored where temporarily impacted. Stream bed material replaced below culvert outlets should be well-compacted to the appropriate grade to help avoid scour.

Thank you for the opportunity to review and provide recommendations on this project. Please contact me at david.mchenry@ncwildlife.gov or (828) 476-1966 if you have any questions about these comments.

Sincerely,

Dave McHenry, NCWRC Western DOT Coordinator

cc: Chris Wood, NCDOT Division 11 Environmental Supervisor

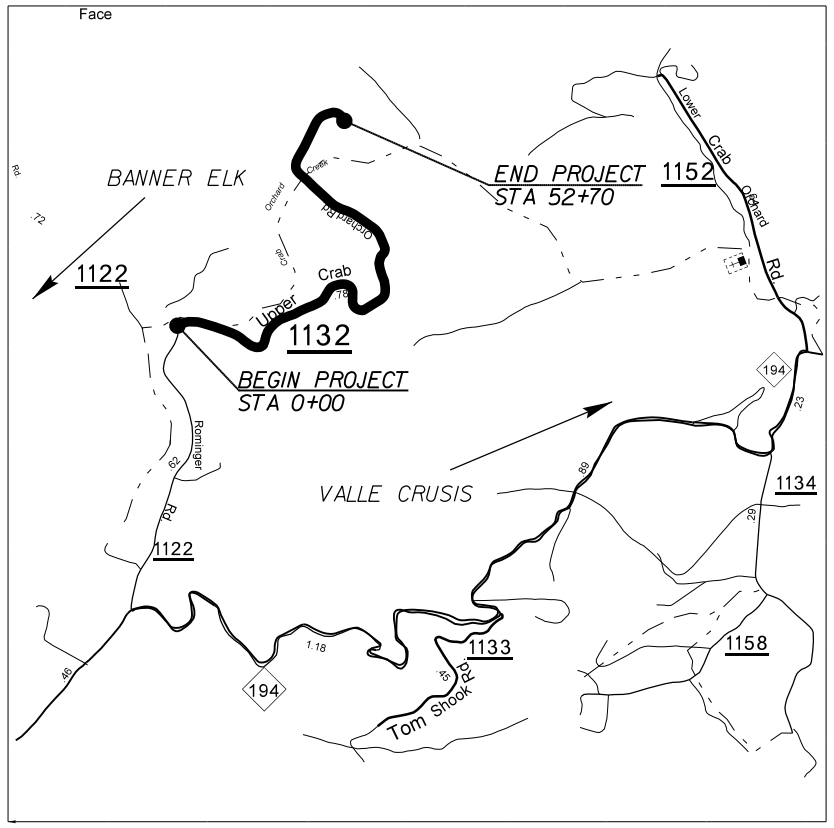
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WATAUGA COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	11C.095115	EC-1	21

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION

VICINITY MAP



LOCATION: SR 1132 UPPER CRAB ORCHARD RD
FROM SR 1112 ROMINGER RD 1.0 Mi. TO DEAD END
STA 00+00 TO E.O.P. 52+70

TYPE OF WORK: GRADING, DRAINAGE, BASE AND PAVING – 1.0 MILES

BEGAN SURVEY: 08/28/18
END SURVEY: 10/25/18

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	EW CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

REVISION:

GRAPHIC SCALE

25 0 50
PLANS

5 0 10
PROFILE (HORIZONTAL)

5 0 10
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared In the Office of:

DIVISION OF HIGHWAYS
DIVISION 11, DISTRICT 2 BOONE
P.O. BOX 1460, BOONE, N.C. 28607

2024 STANDARD SPECIFICATIONS

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2012 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type B	1634.02	Temporary Rock Sediment Dam Type B
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Baffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

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04/16/11

PROJECT REFERENCE NO.	SHEET NO.
11C.095115	1A

EROSION CONTROL & PIPE INSTALLATION SCHEDULE
TROUT BUFFER ZONE SEQUENCE
GENERAL E&SC NOTES
GROUND STABILIZATION CHART

Erosion Control Schedule and Notes

1. Generally, the order of installation of the erosion control measures will be as follows:

   A. Temporary silt basins shall be installed before clearing and grubbing begins.

   B. Silt fences and temporary silt ditches shall be installed after clearing and before grading.

   C. Temporary stone ditch checks with PAM or wattles with PAM shall be installed in all disturbed areas as soon as the disturbance begins.

   D. Final stone ditch checks or wattles shall be installed as soon as ditch line is established.

   E. Pipe outlet and inlet protection will be done as soon as the pipe is installed.

   F. Other permanent erosion control measures are to be implemented as soon as practical.

2. Temporary rock silt checks, type B will be spaced by percent grade as shown in the erosion control plan.

3. No. 5 stone, or equivalent, will be used in conjunction with the temporary rock silt checks in locations where water is leaving the project or entering a pipe.

4. All devices are to be cleaned out when half full.

5. Establish permanent vegetation per ground stabilization chart.

Notes:

For silt basin size see the attached erosion control plans.

PAM is to be placed on all Type A checks and wattles in the erosion control chain except for the final device in HWQ and Trout projects.

Wet Pipe Installation Schedule and Notes

1. Prior to installing any E&SC measures identify permit conditions and impact area limits.

2. Install erosion control devices.

3. Manage the water course. The pipe must be placed in the dry. Install dewatering measures.

4. Remove material and existing pipe while limiting, material and sediment from entering stream and escaping the project.

5. Excavation of stream channel shall not exceed 10' on either side of new pipe or culvert unless indicated on permit.

6. Per permit conditions for Corps of Engineers and the Wildlife Resources Commission, all pipes in streams 48”or greater must be buried 12” below streambed elevation. Pipes less than 48”must be buried with 20% of the diameter below streambed elevation.

7. Place the new pipe and compact backfill.

8. Install slope protection on the outlet and inlet ends of the pipe. Also complete installation of erosion control measures and perform maintenance as needed on existing measures.

9. Establish permanent vegetation per ground stabilization chart.

10. More information on wet pipe installation can be found in the BMP manual section 4.2 "Pipe & Culvert installation"

General Erosion Control Sequence & Notes for NC DOT Projects in Trout Buffer Zones

1. Prior to installing any E&SC measures identify permit conditions and impact area limits. Review trout buffer variance approval conditions for any special provisions.

2. All materials should be on the hand before work is commenced.

3. Install EC devices

4. Work within the buffer zone should be sequenced to minimize the length of time that disturbed areas are exposed. Stream bank stabilization, which includes the area from the edge of water to the top of bank, should be phased so that each day’s work is a completed work, including provision of adequate ground cover.

5. Graded slopes and fills within the trout buffer zone will within 7 calendar days of completion of any phase of grading be planted or otherwise provided with temporary or permanent ground cover, devices, or structures sufficient to restrain erosion.

6. Graded slopes and fills within the trout buffer zone (excluding road shoulders) shall be protected with rolled erosion control product, bonded fiber matrix, or flexible growth medium after seeding.

Notes:

Silt fence backed by woven wire, with a post spacing of 6 feet, shall be used instead of standard silt fence in trout buffer zone. Special sediment control fence shall be used in areas where bedrock is encountered which prohibits the proper anchoring of fabric, and in low points of the silt fence in 3-foot sections to allow for concentrated flows.

The disturbed areas within the stream buffer shall be restored to native vegetation characteristic of an undisturbed buffer to the extent practical upon completion of construction.

Flyrock protection such as blast mats should be provided for blasting in close proximity to streams.

PAM is to be placed on all Type A checks and wattles in the erosion control chain except for the final device in HWQ and Trout projects.

GROUND STABILIZATION CHART

Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10 ft. or less in length and are not steeper than 2:1, 14 days are allowed
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50' in lenght
All other areas flatter than 4:1	14 days	None (except for perimeters and HQW zones)

DK00513

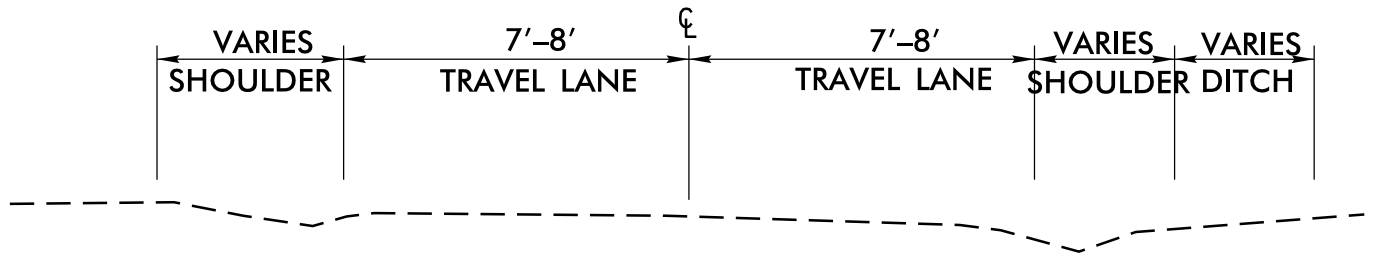
P-64

Watauga County

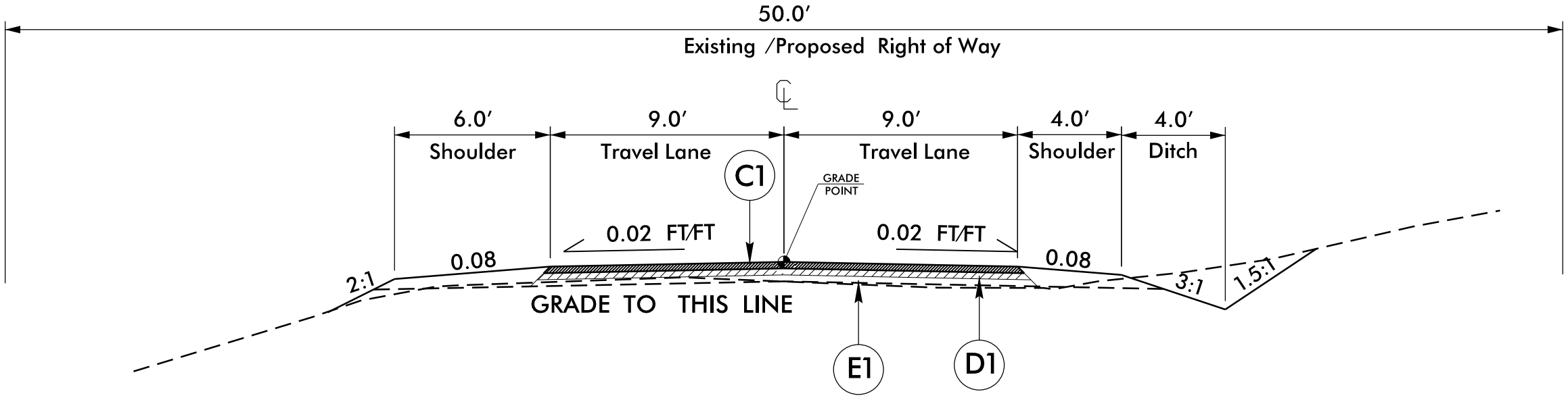
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
IIC.095115	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

DK00513



14′–16′ EXISTING TYPICAL SECTION



TYPICAL SECTION NO. 1

C1	PROP. ASPHALT SURFACE TREATMENT (TRIPLE SEAL).
D1	PROP. APPROX. 3″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
E1	PROP. APPROX. 6″ AGGREGATE BASE COURSE.

5′ 0′ 5′
GRAPHIC SCALE

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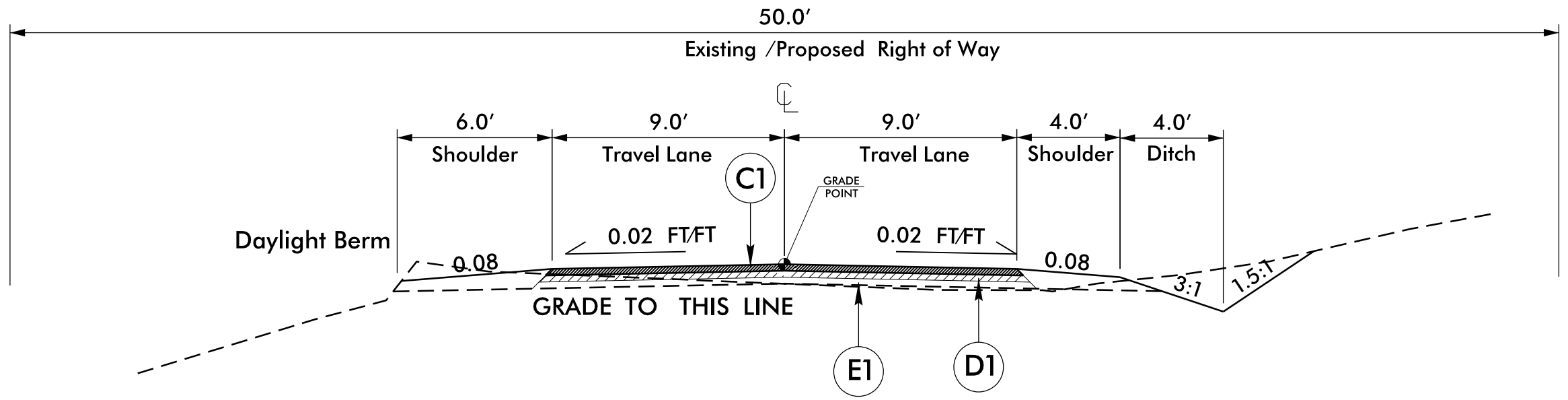
P-65

Watauga County

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
IIC.095115	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

DK00513



TYPICAL SECTION NO. 2

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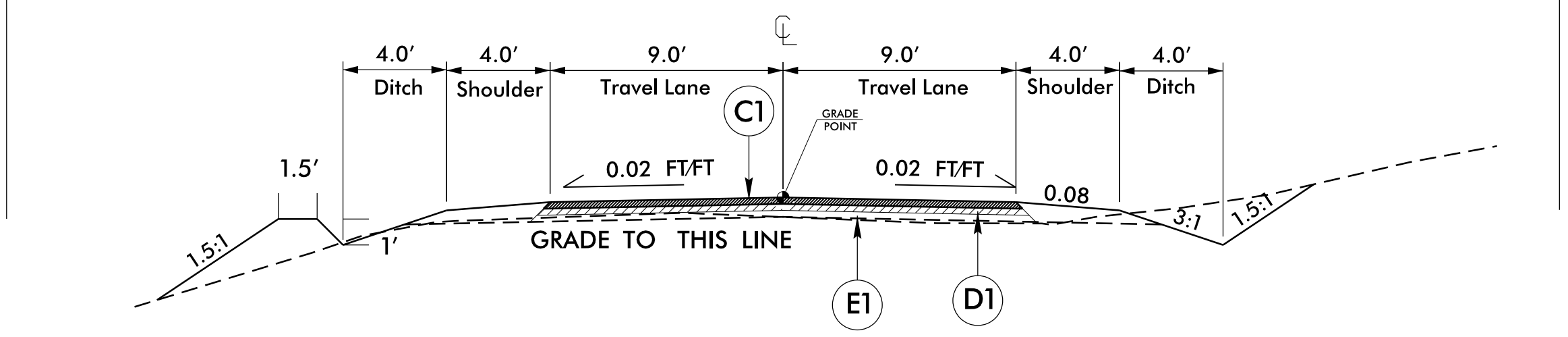
Sta 30+50 to 32+00



TYPICAL SECTION NO. 3

Sta 51+05 to 51+40

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D1	PROP. APPROX. 3″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
E1	PROP. APPROX. 6″ AGGREGATE BASE COURSE.

5′ 0′ 5′
GRAPHIC SCALE

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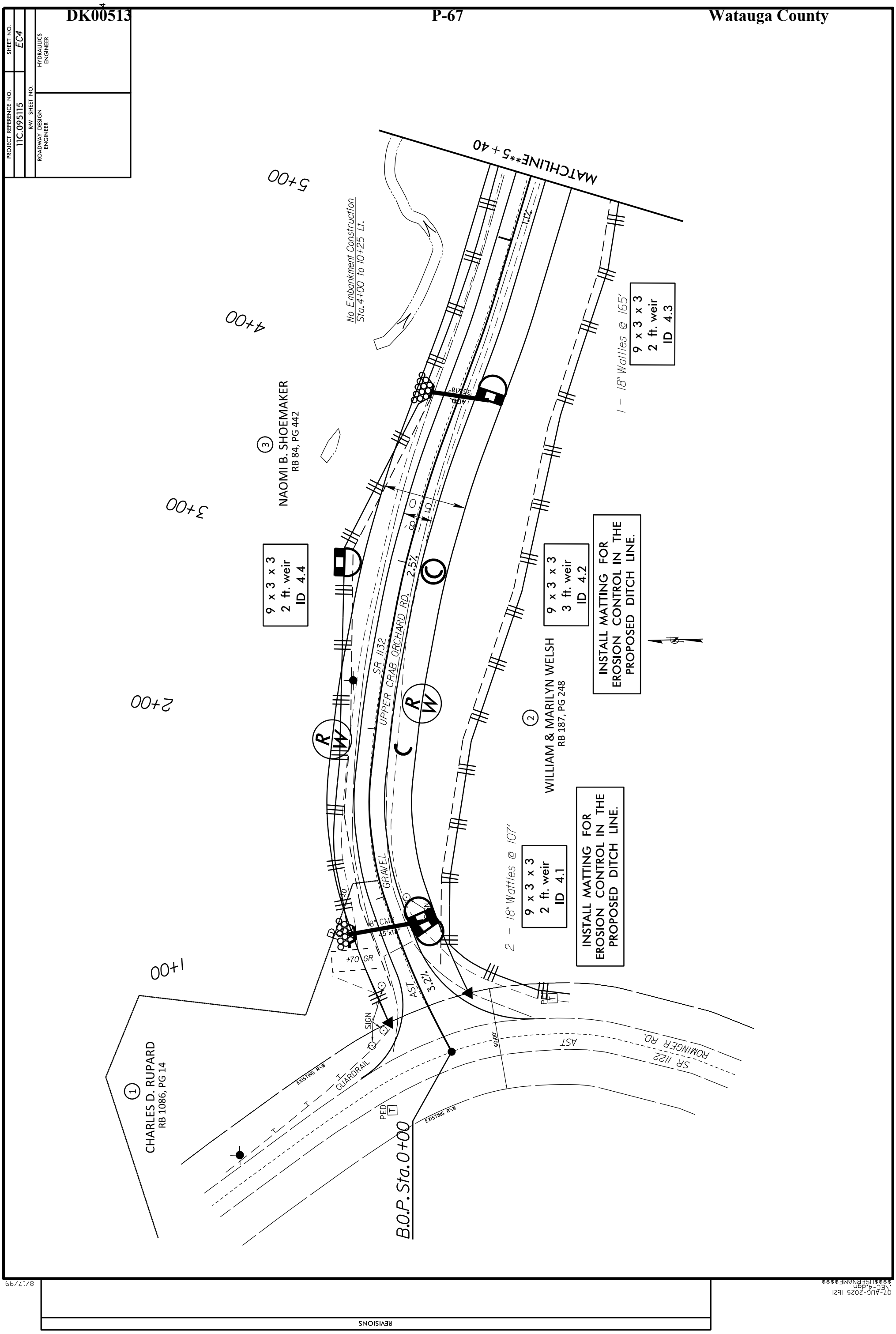
P-66

Watauga County


PROJECT REFERENCE NO.
11C.095115
SHEET NO.
EC4
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
MATCHLINE**5+40
5+00
4+00
3+00
2+00
1+00
No Embankment Construction
Sta.4+00 to 10+25 Lt.
1 - 18" Wattles @ 165'
9 x 3 x 3
2 ft. weir
ID 4.3
NAOMI B. SHOEMAKER
RB 84, PG 442
9 x 3 x 3
2 ft. weir
ID 4.4
9 x 3 x 3
3 ft. weir
ID 4.2
INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.
SR 1132
UPPER CRAB ORCHARD RD.
2.5%
WILLIAM & MARILYN WELSH
RB 187, PG 248
2 - 18" Wattles @ 107'
9 x 3 x 3
2 ft. weir
ID 4.1
INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.
GRAVEL
18" CMP
+70 GR
AST
3.2%
SIGN
GUARDRAIL
EXISTING R/W
PED
SR 1122
ROMINGER RD.
CHARLES D. RUPARD
RB 1086, PG 14
B.O.P. Sta.0+00
REVISIONS
8/17/99
07-AUG-2025 11:21
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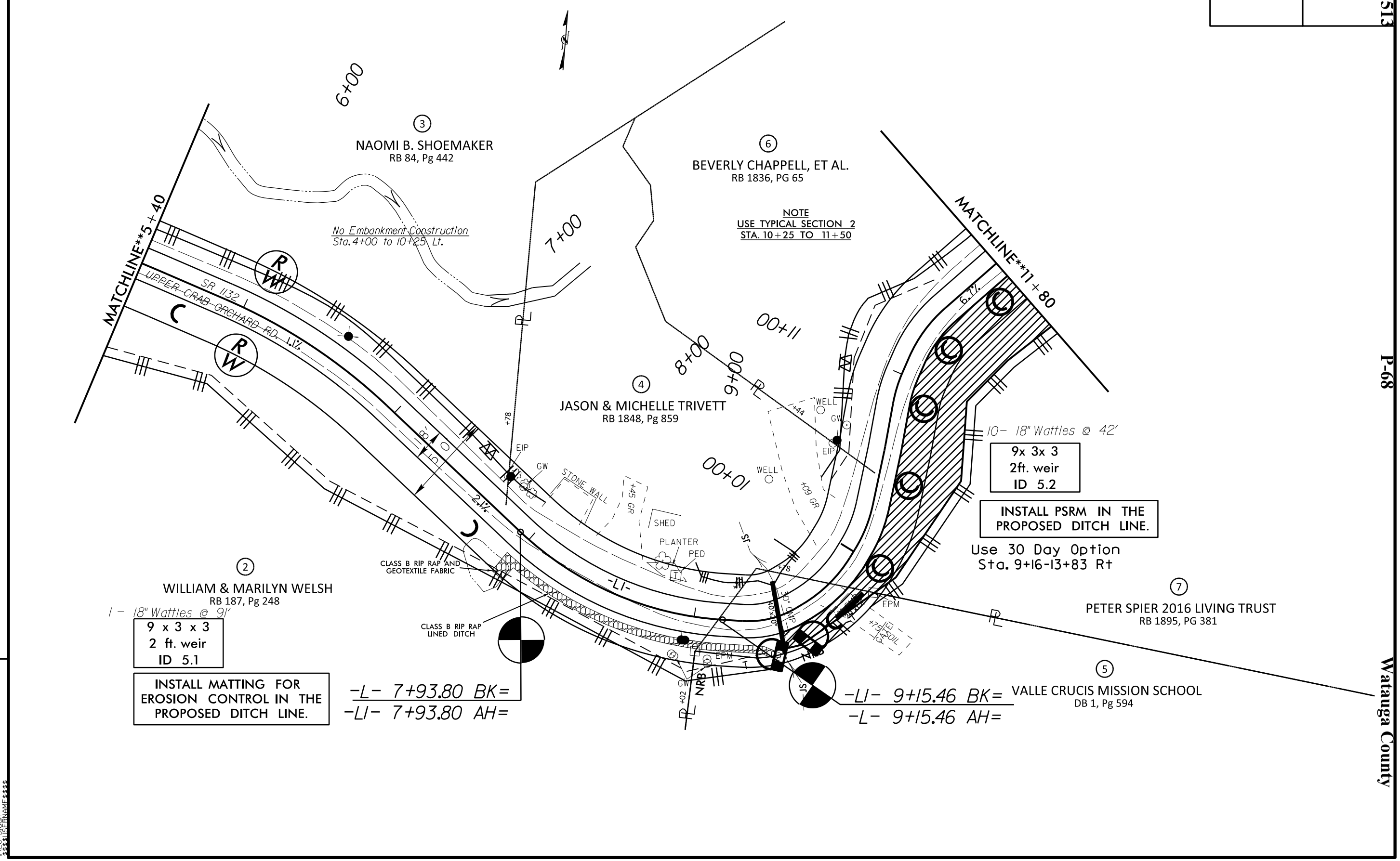
PROJECT REFERENCE NO.	SHEET NO.
11C.095115	EC5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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DK00513

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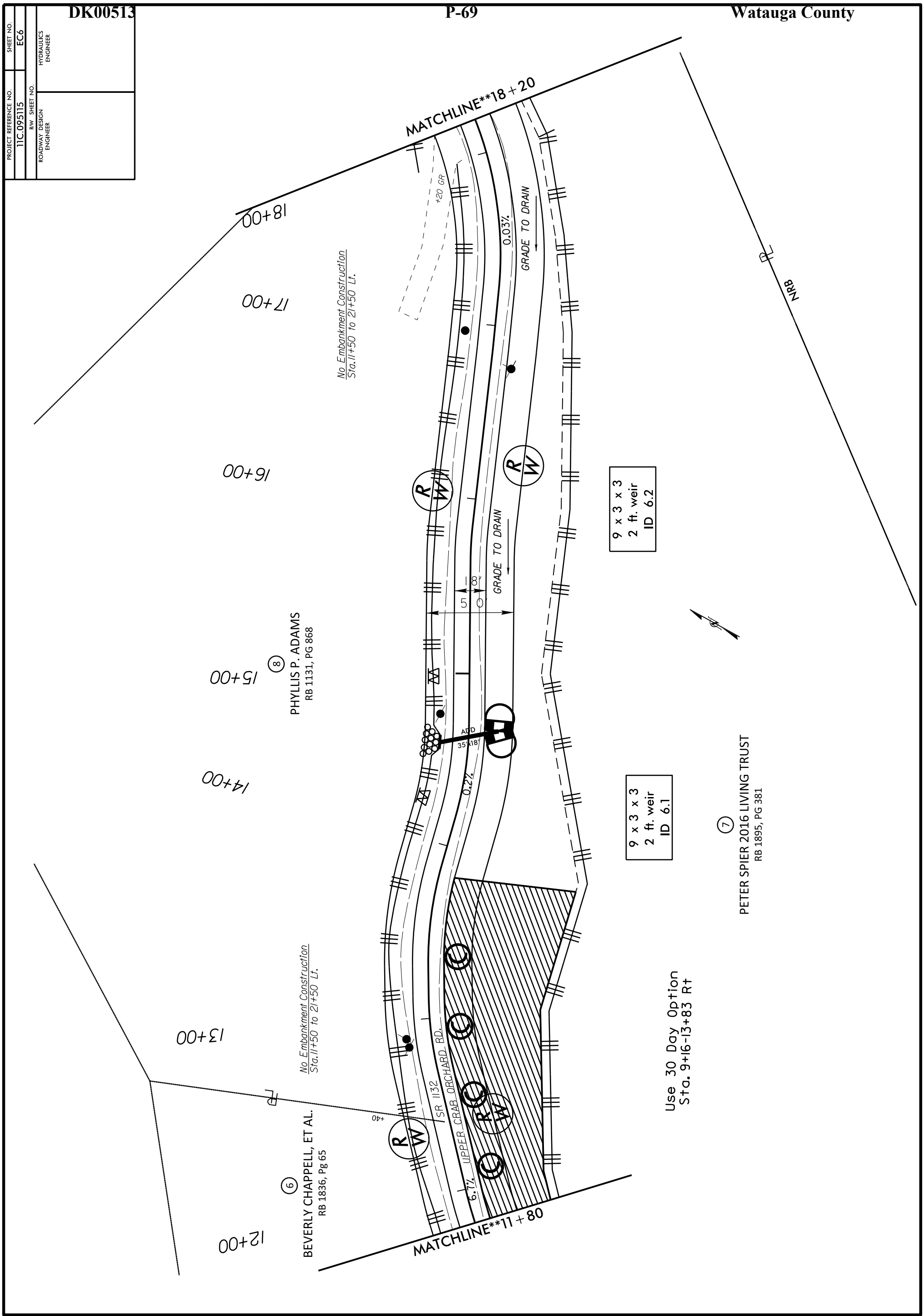
Watauga County


PROJECT REFERENCE NO.
11C.095115
SHEET NO.
EC6
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
MATCHLINE**18+20
MATCHLINE**11+80
18+00
17+00
16+00
15+00
14+00
13+00
12+00
No Embankment Construction
Sta.11+50 to 21+50 Lt.
+20 GR
0.03%
GRADE TO DRAIN
NRB
9 x 3 x 3
2 ft. weir
ID 6.2
18'
50'
8
PHYLLIS P. ADAMS
RB 1131, PG 868
ADD
35'x18'
0.2%
9 x 3 x 3
2 ft. weir
ID 6.1
7
PETER SPIER 2016 LIVING TRUST
RB 1895, PG 381
Use 30 Day Option
Sta. 9+16-13+83 Rt
SR 1132
UPPER CRAB ORCHARD RD.
6.7%
+40
6
BEVERLY CHAPPELL, ET AL.
RB 1836, Pg 65
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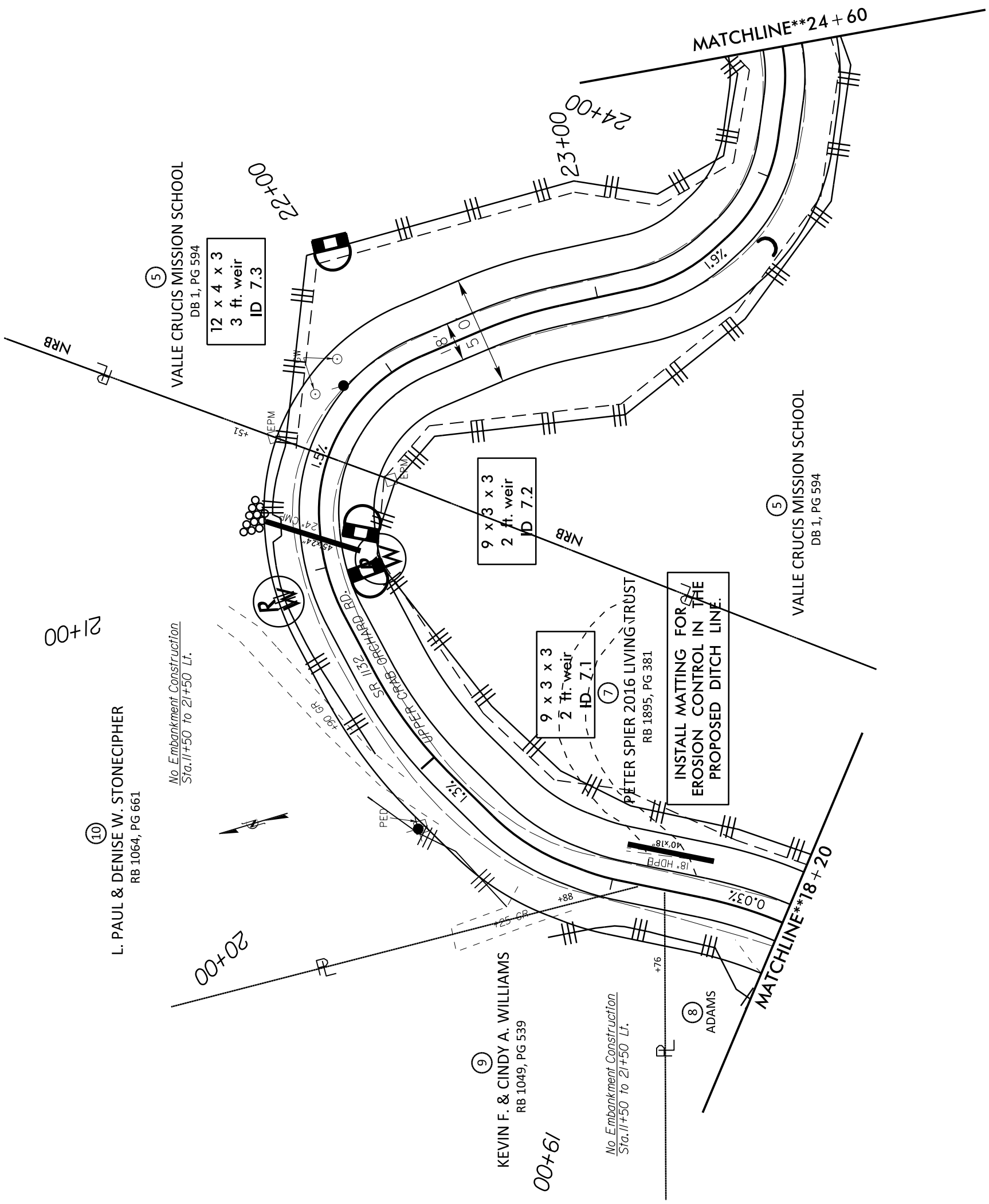
PROJECT REFERENCE NO.	SHEET NO.
11C.095115	EC7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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PROJECT REFERENCE NO.	SHEET NO.
11C.095115	EC8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DK00513

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Watauga County

8/17/99

REVISIONS

MATCHLINE**24+60

25+00

26+00

27+00

28+00

29+00

30+00

31+00

MATCHLINE**31+00

9 x 3 x 3
2 ft. weir
ID 8.3

9 x 3 x 3
2 ft. weir
ID 8.1

9 x 3 x 3
2 ft. weir
ID 8.2

8 x 4 x 3
3 ft. weir
ID 8.4

1 - 18" Wattles @ 112'

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

No Embankment Construction
Sta.26+00 to 28+00 Lt.

NOTE
USE TYPICAL SECTION 2
STA. 30+50 TO 32+00

(5)
VALLE CRUCIS MISSION SCHOOL
DB 1, PG 594

SPRING BOX w/Slab Lid

15"x18" RCP

65"x18"

SPRINGS

UPPER CRAB ORCHARD RD.

SR 1132

8.4%

BARN HOUSE

DECK

SIGN

+98 GR

ADD 55"x15"

+15 GR

HEDGE

2PR

SHED REMOVE

GATE

+28 GR

PED

ADD 25"x15"

+68 SOIL

5'

8'

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EC-8.dgn
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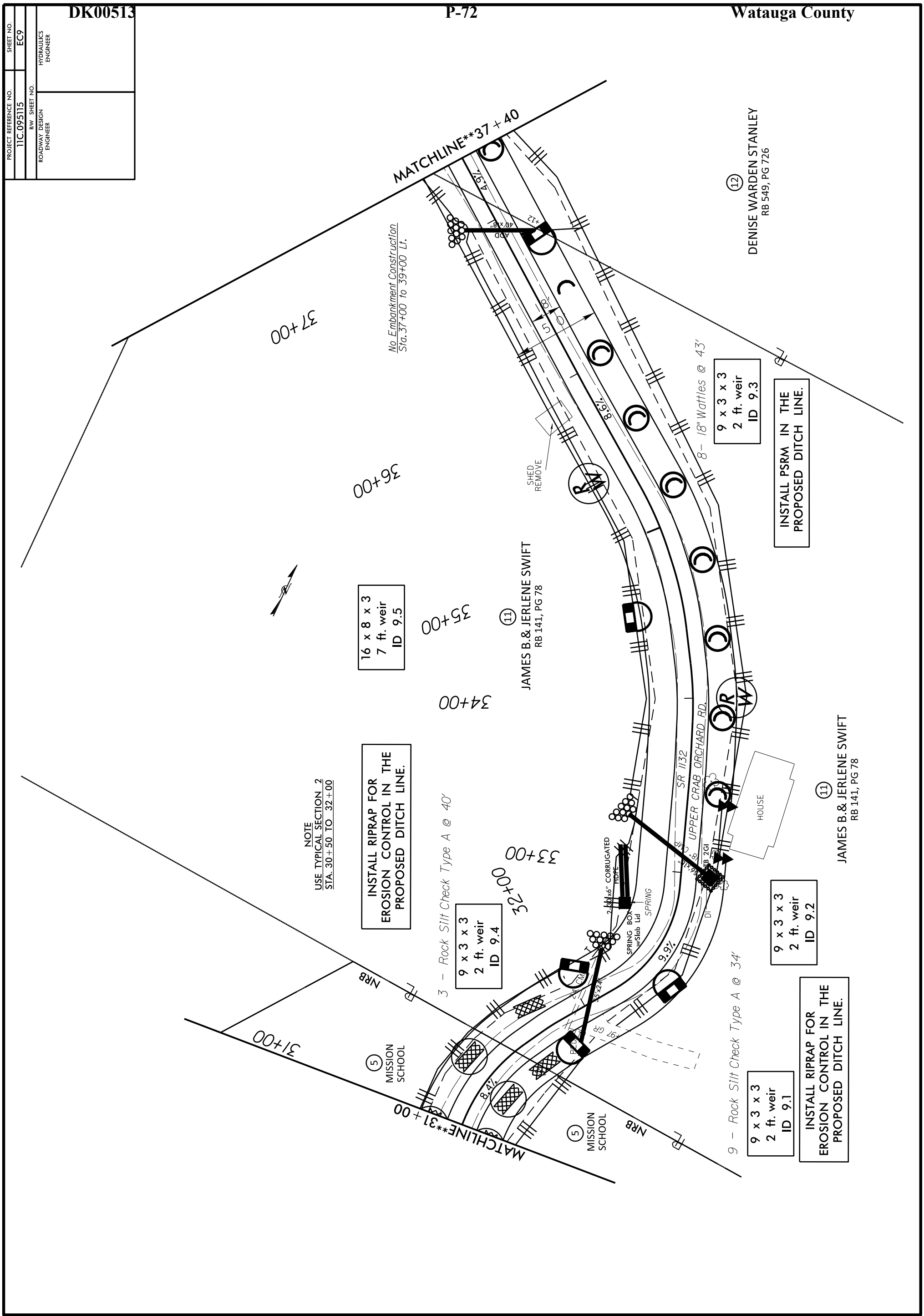
PROJECT REFERENCE NO.
11C.095115
SHEET NO.
EC9
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
MATCHLINE**37+40
MATCHLINE**31+00
37+00
36+00
35+00
34+00
33+00
32+00
31+00
No Embankment Construction
Sta. 37+00 to 39+00 Lt.
NOTE
USE TYPICAL SECTION 2
STA. 30+50 TO 32+00
INSTALL RIPRAP FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.
16 x 8 x 3
7 ft. weir
ID 9.5
9 x 3 x 3
2 ft. weir
ID 9.4
3 - Rock Silt Check Type A @ 40'
9 x 3 x 3
2 ft. weir
ID 9.3
INSTALL PSRM IN THE
PROPOSED DITCH LINE.
8 - 18" Wattles @ 43'
9 x 3 x 3
2 ft. weir
ID 9.2
9 - Rock Silt Check Type A @ 34'
9 x 3 x 3
2 ft. weir
ID 9.1
INSTALL RIPRAP FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.
12
DENISE WARDEN STANLEY
RB 549, PG 726
11
JAMES B.& JERLENE SWIFT
RB 141, PG 78
11
JAMES B.& JERLENE SWIFT
RB 141, PG 78
5
MISSION SCHOOL
5
MISSION SCHOOL
SHED REMOVE
HOUSE
SR 1132
UPPER CRAB ORCHARD RD.
SPRING BOX w/Slab Lid
SPRING
NRB
NRB
4.9%
8.6%
9.9%
8.4%
ADD 40'x18'
+12
R/W
R/W
DI
TB 2GI
2-30'x6" CORRUGATED HDPE
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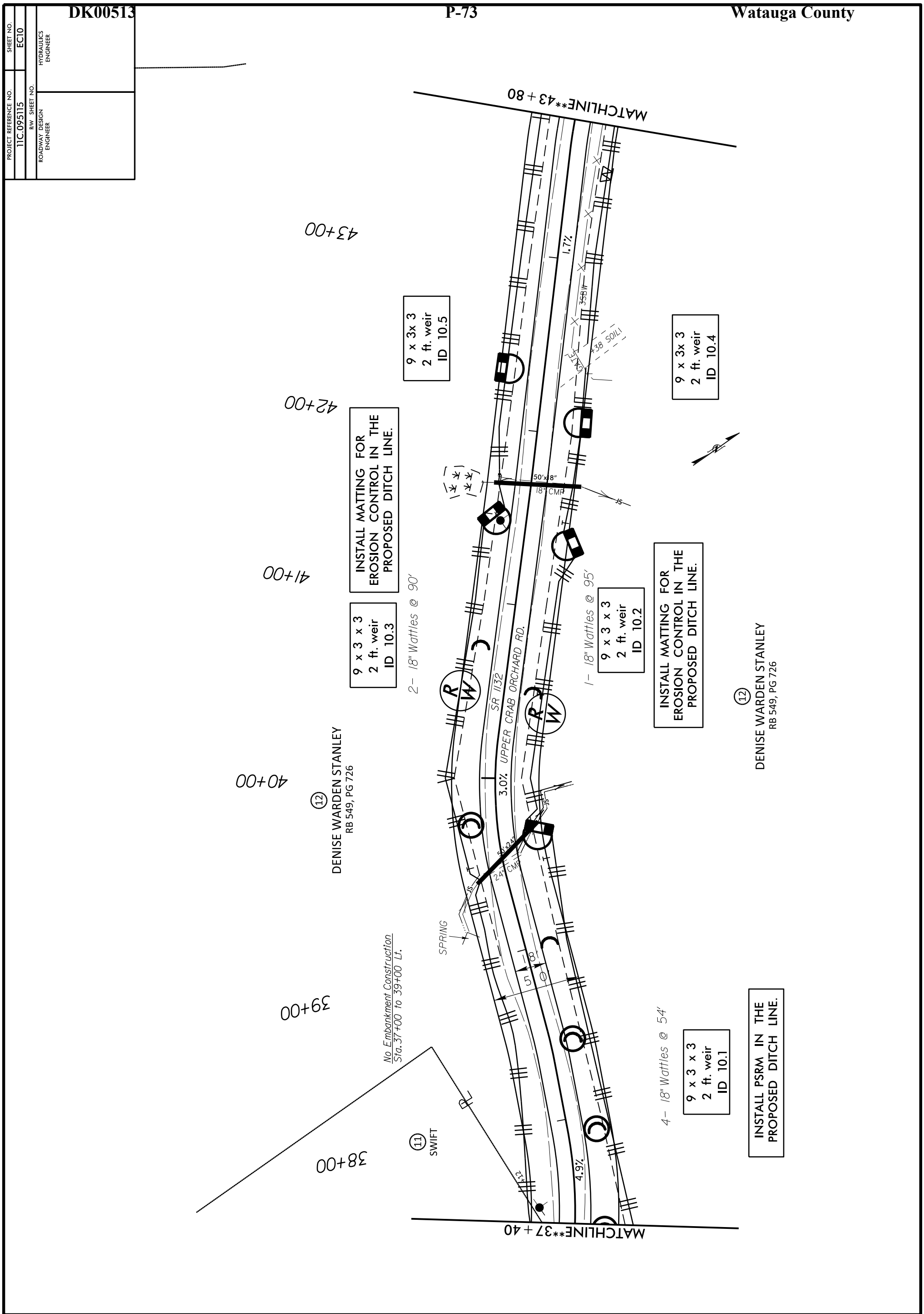
REVISIONS


PROJECT REFERENCE NO.
11C.095115
SHEET NO.
EC10
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
MATCHLINE**43+80
43+00
42+00
41+00
40+00
39+00
38+00
MATCHLINE**37+40
9 x 3x 3
2 ft. weir
ID 10.5
9 x 3x 3
2 ft. weir
ID 10.4
INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.
9 x 3 x 3
2 ft. weir
ID 10.3
2- 18" Wattles @ 90'
1- 18" Wattles @ 95'
9 x 3 x 3
2 ft. weir
ID 10.2
INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.
12
DENISE WARDEN STANLEY
RB 549, PG 726
12
DENISE WARDEN STANLEY
RB 549, PG 726
SR 1132
UPPER CRAB ORCHARD RD.
3.0%
1.7%
50'x18"
18" CMP
50'x24"
24" CMP
SPRING
No Embankment Construction
Sta. 37+00 to 39+00 Lt.
4- 18" Wattles @ 54'
9 x 3 x 3
2 ft. weir
ID 10.1
INSTALL PSRM IN THE PROPOSED DITCH LINE.
11
SWIFT
4.9%
REVISIONS
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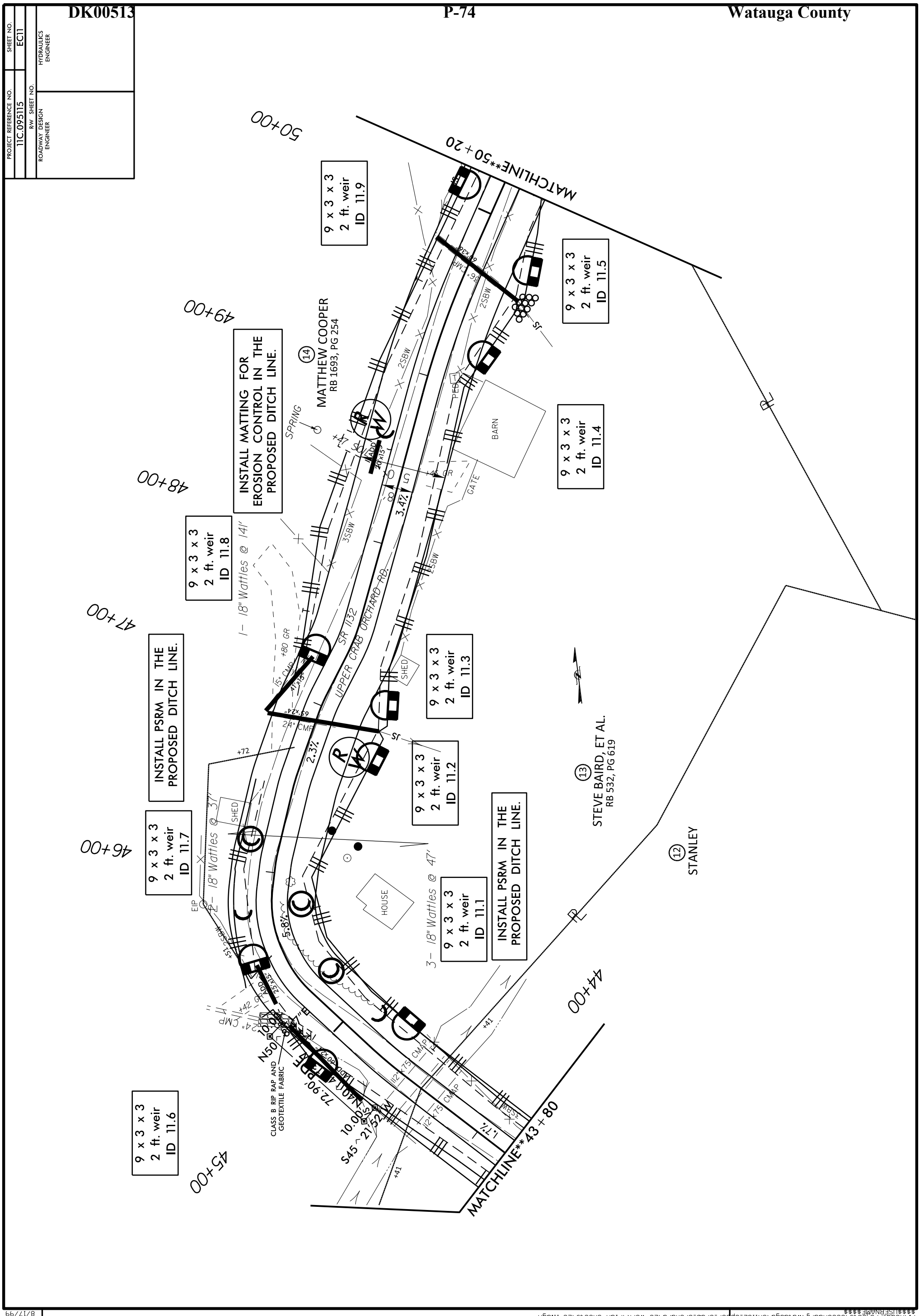

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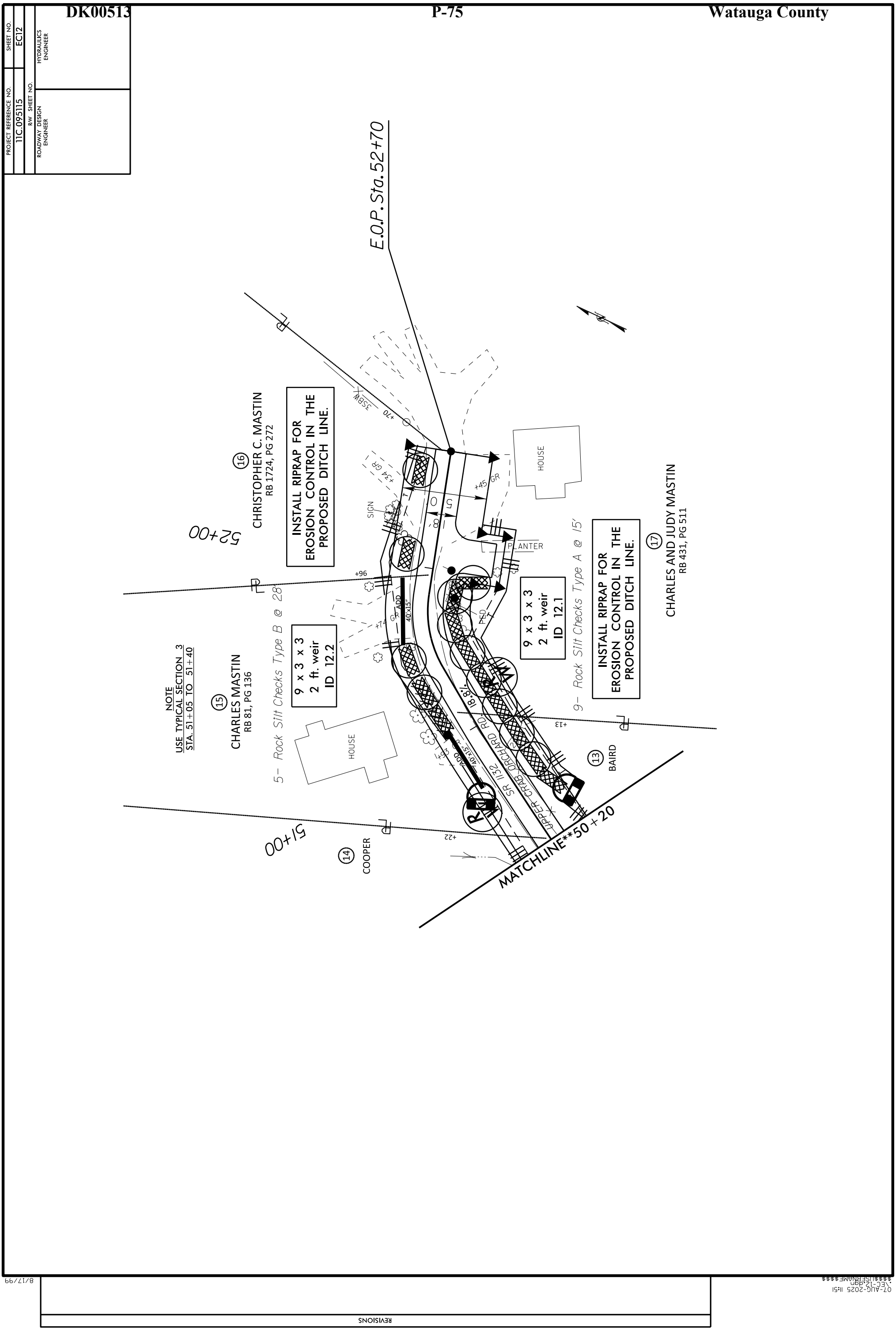
REVISIONS


PROJECT REFERENCE NO.
11C.095115
SHEET NO.
EC12
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
E.O.P. Sta. 52+70
52+00
51+00
16
CHRISTOPHER C. MASTIN
RB 1724, PG 272
INSTALL RIPRAP FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.
17
CHARLES AND JUDY MASTIN
RB 431, PG 511
INSTALL RIPRAP FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.
9 x 3 x 3
2 ft. weir
ID 12.1
9 x 3 x 3
2 ft. weir
ID 12.2
NOTE
USE TYPICAL SECTION 3
STA. 51+05 TO 51+40
15
CHARLES MASTIN
RB 81, PG 136
5- Rock Silt Checks Type B @ 28'
9- Rock Silt Checks Type A @ 15'
HOUSE
HOUSE
PLANTER
SIGN
PED
ADD
40'x15"
SR 1132
UPPER CRAB ORCHARD RD.
18.8%
13
BAIRD
14
COOPER
MATCHLINE**50+20
+70
+96
+74
+45
+34
+13
+22
3SBW
8/17/99
REVISIONS
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$$$$USERNAME$$$$

County: WATAUGA

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
			ROADWAY ITEMS			
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	0000400000-N	801	CONSTRUCTION SURVEYING	Lump Sum	L.S.	
0003	0043000000-N	226	GRADING	Lump Sum	L.S.	
0004	0057000000-E	226	UNDERCUT EXCAVATION	100 CY		
0005	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION	300 SY		
0006	0318000000-E	300	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	10 TON		
0007	0321000000-E	300	FOUNDATION CONDITIONING GEOTEXTILE	10 SY		
0008	0335100000-E	305	12" DRAINAGE PIPE	60 LF		
0009	0335200000-E	305	15" DRAINAGE PIPE	266 LF		
0010	0335300000-E	305	18" DRAINAGE PIPE	381 LF		
0011	0335400000-E	305	24" DRAINAGE PIPE	275 LF		
0012	0335500000-E	305	30" DRAINAGE PIPE	40 LF		
0013	0335600000-E	305	36" DRAINAGE PIPE	60 LF		
0014	0995000000-E	340	PIPE REMOVAL	97 LF		
0015	1099500000-E	505	SHALLOW UNDERCUT	75 CY		
0016	1099700000-E	505	CLASS IV SUBGRADE STABILIZATION	200 TON		
0017	1121000000-E	520	AGGREGATE BASE COURSE	3,500 TON		

County: WATAUGA

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0018	1220000000-E	545	INCIDENTAL STONE BASE	2,000 TON		
0019	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	1,850 TON		
0020	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	91 TON		
0021	1836000000-E	660	ASPHALT SURFACE TREATMENT, TRIPLE SEAL	10,540 SY		
0022	1838000000-E	660	EMULSION FOR ASPHALT SURFACE TREATMENT	9,500 GAL		
0023	2022000000-E	815	SUBDRAIN EXCAVATION	100 CY		
0024	2026000000-E	815	GEOTEXTILE FOR SUBSURFACE DRAINS	300 SY		
0025	2036000000-E	815	SUBDRAIN COARSE AGGREGATE	500 CY		
0026	2044000000-E	815	6" PERFORATED SUBDRAIN PIPE	500 LF		
0027	2070000000-N	815	SUBDRAIN PIPE OUTLET	4 EA		
0028	2143000000-E	818	BLOTTING SAND	50 TON		
0029	2286000000-N	840	MASONRY DRAINAGE STRUCTURES	2 EA		
0030	2364000000-N	840	FRAME WITH TWO GRATES, STD 840.16	1 EA		
0031	2396000000-N	840	FRAME WITH COVER, STD 840.54	1 EA		
0032	3030000000-E	862	STEEL BEAM GUARDRAIL	500 LF		
0033	3045000000-E	862	STEEL BEAM GUARDRAIL, SHOP CURVED	50 LF		
0034	3145000000-E	862	EXTRA LENGTH GUARDRAIL POST (**' STEEL) 8'	25 EA		

County: WATAUGA

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0035	3287000000-N	862	GUARDRAIL END UNITS, TYPE TL-3	4 EA		
0036	3288000000-N	862	GUARDRAIL END UNITS, TYPE TL-2	1 EA		
0037	3360000000-E	863	REMOVE EXISTING GUARDRAIL	25 LF		
0038	3569000000-E	867	BARBED WIRE FENCE RESET	600 LF		
0039	3635000000-E	876	RIP RAP, CLASS II	100 TON		
0040	3649000000-E	876	RIP RAP, CLASS B	500 TON		
0041	3656000000-E	876	GEOTEXTILE FOR DRAINAGE	500 SY		
0042	3677000000-E	SP	GENERIC EROSION CONTROL ITEM PERMANENT SOIL REINFORCEMENT MAT	1,070 SY		
0043	4457000000-N	SP	TEMPORARY TRAFFIC CONTROL	Lump Sum	L.S.	
0044	4810000000-E	1205	PAINT PAVEMENT MARKING LINES (4")	42,500 LF		
0045	6000000000-E	1605	TEMPORARY SILT FENCE	11,000 LF		
0046	6006000000-E	1610	STONE FOR EROSION CONTROL, CLASS A	300 TON		
0047	6009000000-E	1610	STONE FOR EROSION CONTROL, CLASS B	600 TON		
0048	6012000000-E	1610	SEDIMENT CONTROL STONE	600 TON		
0049	6015000000-E	1615	TEMPORARY MULCHING	5 ACR		
0050	6018000000-E	1620	SEED FOR TEMPORARY SEEDING	500 LB		
0051	6021000000-E	1620	FERTILIZER FOR TEMPORARY SEEDING	2 TON		

County: WATAUGA

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0052	6024000000-E	1622	TEMPORARY SLOPE DRAINS	250 LF		
0053	6029000000-E	SP	SAFETY FENCE	500 LF		
0054	6030000000-E	1630	SILT EXCAVATION	200 CY		
0055	6036000000-E	1631	MATTING FOR EROSION CONTROL	8,000 SY		
0056	6037000000-E	1629	COIR FIBER MAT	300 SY		
0057	6042000000-E	1632	1/4" HARDWARE CLOTH	250 LF		
0058	6071002000-E	1642	FLOCCULANT	200 LB		
0059	6071010000-E	1642	WATTLE	500 LF		
0060	6071030000-E	1640	COIR FIBER BAFFLE	280 LF		
0061	6071050000-E	1644	**" SKIMMER 1" TO 5"	1 EA		
0062	6084000000-E	1660	SEEDING & MULCHING	5 ACR		
0063	6090000000-E	1661	SEED FOR REPAIR SEEDING	250 LB		
0064	6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	0.75 TON		
0065	6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	150 LB		
0066	6108000000-E	1665	FERTILIZER TOPDRESSING	3 TON		
0067	6111000000-E	SP	IMPERVIOUS DIKE	25 LF		
0068	6117000000-N	1675	RESPONSE FOR EROSION CONTROL	20 EA		

1649/Nov17/Q100633.75/D226491892000/E68 **Total Amount Of Bid For Entire Project :**