

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION 1

PROPOSAL

DATE AND TIME OF BID OPENING: APRIL 15, 2026 AT 2:00 PM

CONTRACT ID: DA00645

WBS ELEMENT NO.: 16.71001, 50801.3.2

FEDERAL AID NO.: 5080111

COUNTY: DARE AND HYDE

TIP NO.: FF-0001A

MILES: N/A

ROUTE NO.: NC-12

LOCATION: HATTERAS ISLAND AND OCRACOKE ISLAND

★ TYPE OF WORK: DREDGING AND PASSENGER FERRY DOCK REPLACEMENT ★

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 \$30,000 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 STRUCTURE PROJECT.

BID BOND IS REQUIRED.

NAME OF BIDDER

ADDRESS OF BIDDER

**PROPOSAL FOR THE CONSTRUCTION OF
CONTRACT No. DA00645 IN DARE AND HYDE COUNTIES, 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. **DA00645**; 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. **DA00645** in **Dare and Hyde Counties**, 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 Article 102-8(B) of the *Standard Specifications*.

Bidders that bid electronically on Raleigh Central-Let projects will need a separate Digital Signature from the approved electronic bidding provider for Division Contracts.

ELECTRONIC ON-LINE BID:

1. Download entire proposal from Connect NCDOT website. Download the electronic submittal file from the approved electronic bidding provider website.
2. 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.
3. Prepare and submit the electronic submittal file using the approved electronic bidding provider software.
4. Electronic bidding software necessary for electronic bid preparation may be downloaded from the Bid Express website following the directions at: <https://connect.ncdot.gov/letting/Pages/Electronic-Bidding.aspx>.
5. Questions should be emailed 7 calendar days prior to the bid opening to **Mark S. Winslow** at **mswinslow@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****MANDATORY PRE-BID CONFERENCE (Prequalifying To Bid):**

(7-18-06) (Rev. 12-23-25)

SPI 1-14A

In order for all prospective bidders to have an extensive knowledge of the project, all prospective bidders shall attend a mandatory pre-bid conference on **Thursday March 26, 2026, at 12:30 PM**. The meeting will be held at:

**Hatteras Ferry Terminal
59063 NC 12 S
Hatteras, NC 27943**

For any questions about the pre-bid conference, please contact:

- John Abel - (252) 217-5856, ext-jsabel@ncdot.gov

The pre-bid conference will include a thorough discussion of the plans, contract pay items, special provisions, etc.

Only bidders who have attended and properly registered at the above scheduled pre-bid conference and who have met all other prequalification requirements will be considered prequalified to bid on this project. A bid received from a bidder who has not attended and properly registered at the above scheduled pre-bid conference will not be accepted and considered for award. There is not a virtual or call-in option for this mandatory pre-bid conference.

Attendance at the pre-bid conference will not meet the requirements of proper registration unless the individual attending has registered at the pre-bid conference in accordance with the following:

- (A) The individual will ensure his name and all required information has been recorded on the official roster no later than 10 minutes after the above noted time for the beginning of the conference. Attendees can request that the names and their companies' names on the official roster be read aloud.
- (B) The individual has written in the name and address of the company he or she represents.
- (C) Only one company has been shown as being represented by the individual attending.
- (D) The individual attending is an officer or permanent employee of the company they are representing.

Attendance at any prior pre-bid conference will not meet the requirement of this provision.

BIDS OVER LIMIT:

(08-01-16)

SPD 01-400

In accordance with GS 136-28.1(b), if the total bid amount of the contract exceeds \$5.0 million, the bid will not be considered for award.

DIVISION LET CONTRACT PREQUALIFICATION:

(07-01-14)(12-1-16)

SPD 01-410

Any firm that wishes to bid as a prime contractor shall be prequalified as a Bidder or PO Prime Contractor prior to submitting a bid. Information regarding prequalification can be found at: <https://connect.ncdot.gov/business/Prequal/Pages/default.aspx>.

Prior to performing the work, the prime contractor and/or subcontractor(s) shall be prequalified in the work code(s) which are identified as work items in the prime contractor's construction progress schedule that they will complete themselves. Any contractor identified as working outside their expertise may be considered in default of contract.

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*.

CONTRACTOR CLAIM SUBMITTAL FORM:

(2-12-14)

104-3

SPD 01-440

If the Contractor elects to file a written claim or requests an extension of contract time, it shall be submitted on the *Contractor Claim Submittal Form (CCSF)* available through the Construction Unit or at <https://connect.ncdot.gov/projects/construction/Pages/Construction-Resources.aspx> as Form CCSF under Construction Forms.

Any claims for additional compensation and/or extensions of the completion date shall be submitted to the Division Engineer in writing, with detailed justification, prior to submitting the final invoice payment. Once an invoice is received and accepted that is marked as "Final", the Contractor shall be barred from recovery.

BUILD AMERICA, BUY AMERICA (BABA):

(11-15-22)(Rev. 4-21-26)

106

SP1 G05 B

Revise the *Standard Specifications* as follows:

Page 1-47 and 1-48, Article 106-1 GENERAL REQUIREMENTS, lines 30-47 and 1-49, delete and replace Article 106-1 with the following:

106-1 MATERIALS AND MANUFACTURING**(A) General Requirements**

The Contractor shall furnish materials that conform to all contract requirements, are suitable for their intended use, and are free from defects. All materials used in the work shall meet the requirements of the contract and shall be subject to inspection, test, or rejection by the Engineer. All materials permanently incorporated into the completed work shall be new, unless otherwise specified in the contract or as approved by the Engineer.

The Contractor is responsible for selecting, procuring, and delivering materials of the types and quantities necessary to perform the work and meet contract requirements. Delays in material delivery or quality control do not relieve the Contractor of obligations for schedule or quality.

All materials incorporated into the work shall be approved before use. Approval is based on testing, certification, or both, as required by the contract. Department review or acceptance does not relieve the Contractor of responsibility for material compliance. The Department may inspect, sample, and test materials at any time before, during, or after installation.

Materials shall be handled, stored, and protected to prevent damage, contamination, or deterioration. Materials determined to be defective, damaged, contaminated, or otherwise not in compliance shall be rejected and promptly removed from the project.

To facilitate inspection and testing, the Contractor shall furnish a complete statement of origin for all materials, including certifications or samples when requested. This information shall be submitted to the Materials and Tests Unit when required by the contract or as directed by the Engineer, in advance of fabrication, shipment, or use to allow for appropriate inspection.

The Contractor shall furnish Safety Data Sheets (SDS) for all paints and hazardous chemicals proposed for use on the project, in accordance with the North Carolina Hazard Communication Standard, 29 CFR 1910.1200 and NCGS § 95-174.

The Contractor shall provide access, equipment, means and assistance for the verification and calibration of any devices used in testing, measurement, or documentation of materials.

If the Contractor proposes to use materials from local deposits not identified in the contract, the Contractor shall be responsible for preliminary sampling, source approval, and production of acceptable material. Preliminary samples shall be furnished at no cost to the Department. If requested in writing, the Department may perform sampling, with costs to be charged to the Contractor as determined by the Engineer.

Sampling or testing by the Department does not constitute pre-approval or acceptance of material. The Contractor remains responsible for ensuring quality and uniformity of all materials produced or delivered, including those from local deposits. The Contractor shall indemnify and hold harmless the Department from any claims, costs, or damages related to the development or use of such sources, including, but not limited to, failure to meet quantity or quality requirements.

Materials covered by Subarticles 106-1(B) and 106-1(C) shall comply with applicable domestic content requirements, including those for iron and steel, construction materials, and manufactured products.

(B) Domestic Material Requirements

Domestic material requirements apply to iron and steel products permanently incorporated into any project in accordance with 23 U.S.C. § 313, 23 CFR 635.410, and NCGS § 136-28.7. Construction materials and manufactured products permanently incorporated into the work are subject to domestic-content requirements only on Federal-aid projects, in accordance with 23 U.S.C. § 313, Build America Buy America Act (IIJA § 70914), 2 CFR 184, and as implemented for the Federal-aid highway program through 23 CFR Part 635.410.

All iron or steel products, construction materials, and manufactured products subject to domestic content requirements shall be of domestic origin and meet the applicable requirements of the contract based on the project's funding source.

Before any materials are delivered to the project, the Contractor shall submit a notarized letter acknowledging their understanding of the domestic material requirements for the specific contract. This acknowledgment is a contract-level affirmation that the Contractor is responsible for ensuring that no iron or steel product, construction material, or manufactured product subject to domestic content requirements is permanently incorporated into the work without the required certification. This acknowledgment does not substitute for product-level certifications from the manufacturer or supplier. The Department reserves the right to deny or recover payment for any material incorporated into the work without valid documentation.

For iron and steel, all manufacturing processes must occur in the United States.

For construction materials, all manufacturing processes must occur in the United States.

For manufactured products, final assembly must occur in the United States.

Before any iron or steel product, construction material, or manufactured product subject to domestic content requirements is eligible for payment, the Contractor shall submit a certification from the manufacturer or supplier confirming compliance with the applicable regulations. A separate certification is required for each shipment or delivery and must clearly identify the items covered, linked to the associated bill of lading, invoice, or packing list.

The Contractor shall ensure that all required certifications from the manufacturer or supplier are obtained and submitted to the Engineer prior to payment for any iron or steel product, construction material, or manufactured product subject to domestic content requirements. The Engineer will retain documentation in accordance with Department procedures. Compliance with domestic material requirements is the responsibility of the Contractor, based on certifications and documentation provided by the manufacturer or supplier.

(C) Material Category Requirements**(1) Iron and Steel Products**

Items are considered iron or steel products if they consist wholly or predominantly of iron or steel. Predominantly means the cost of iron or steel components exceeds 50% of the total cost of all product components.

All steel and iron products that are permanently incorporated into the work shall be produced in the United States. This includes any such item that is melted, cast, rolled, formed, shaped, drawn, extruded, forged, fabricated, finished or otherwise processed in the manufacture of the product. Coatings applied to iron and steel products shall also be applied in the United States.

A minimal amount of foreign iron or steel products may be permitted provided the total value of such foreign material, as delivered to the project, does not exceed 0.1% of the total contract cost or \$2,500, whichever is greater. Documentation establishing the value of the foreign material shall be submitted when requested. This allowance is intended only for incidental quantities that may arise despite good-faith compliance efforts and may not be used to intentionally procure foreign iron or steel.

Domestically produced high-strength fasteners are required, and foreign-produced high-strength fasteners are not permitted under any circumstance.

Raw materials such as pig iron, processed pelletized iron ore, and reduced iron ore may be sourced internationally; however, all manufacturing processes to produce the final product, including coatings, must occur within the United States.

(2) Construction Materials

Construction materials shall consist of a single, listed material type permanently incorporated into the work as defined in 2 CFR 184.3. The following are classified as construction materials:

- (a) Non-ferrous metals (such as aluminum, copper, and zinc);
- (b) Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- (c) Glass (including optical glass);
- (d) Fiber optic cable (including drop cable);
- (e) Optical fiber;
- (f) Lumber;
- (g) Engineered wood;
- (h) Drywall

For construction materials, all manufacturing processes must occur in the United States. If a construction material is combined with other materials, components, or features to form a product with new properties or functions, it shall be classified as a manufactured product.

Minor additions such as binding agents, dyes, or adhesives that do not materially alter the item's properties do not affect classification.

(3) Manufactured Products

Manufactured products are articles, materials, or supplies that are made by combining one or more materials to create a product with new or different properties, functions, or uses. This

includes items that incorporate multiple components, materials, or assemblies and cannot be classified as a single listed construction material.

Final assembly of all manufactured products must occur in the United States. Certification must address the product as a whole, including all incorporated components.

Items that meet the definition of construction materials or iron and steel products shall not be reclassified as manufactured products.

(4) Materials Not Subject to Domestic Content Requirements

The following materials are not subject to domestic content requirements and do not require certification, as identified below:

(a) Materials Excluded by Federal Statute or Regulation

The following materials are excluded from domestic content requirements under applicable Federal law or regulation:

- (i) Cement and cementitious materials
- (ii) Aggregates such as stone, sand, or gravel
- (iii) Aggregate binding agents or additives

(b) Materials Not Permanently Incorporated into the Work

Materials that are not permanently incorporated into the completed project are not subject to domestic content requirements. Materials are not permanently incorporated when they are used solely to facilitate construction activities and do not perform an ongoing structural, operational, or functional role after construction is complete. Determinations regarding whether a material is permanently incorporated will be made by the Engineer.

(D) Classification and Clarification of Materials

All items subject to domestic content requirements shall be classified as either an iron or steel product, construction material, manufactured product, or a material not subject to domestic content requirements based on their final form as delivered to the project site. Each item may be classified into only one category and shall not be reclassified to avoid more stringent requirements. Classification of a manufactured product does not relieve the Contractor of compliance with iron and steel domestic manufacturing requirements applicable to embedded iron or steel components when required by Federal law or regulation. When an item's classification is uncertain or does not clearly fall within the listed categories, the Contractor shall submit the item for review by the Engineer. Approval must be obtained prior to procurement or incorporation into the project.

CONTRACT TIME AND LIQUIDATED DAMAGES:

(7-20-99) (Rev. 5-16-23)

108

SP1 G06

The date of availability for this contract is **October 1, 2026**, 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 **March 20, 2027**.

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 **One Thousand Six Hundred Dollars (\$ 1,600.00)** per calendar day.

INTERMEDIATE CONTRACT TIME NUMBER 1 AND LIQUIDATED DAMAGES:

The Contractor shall not impact Ferry Operation without a closure/impact plan approved 2 weeks in advance of the work. The closure/impact plan shall be approved by NCDOT and EOR. The contractor shall provide NCDOT and EOR 1 week minimum to review the closure/impact plan.

The intermediate contract time begins upon unapproved impact to Ferry Operations.

The intermediate contract time ends upon removal of the unapproved impact to Ferry Operations.

The liquidated damages are **Five Hundred Dollars (\$500.00)** per hour or portion thereof.

INTERMEDIATE CONTRACT TIME NUMBER 2 AND LIQUIDATED DAMAGES:

The Contractor shall not perform any work on this project during the following time restrictions:

DAY AND TIME RESTRICTIONS

SUNDAY- SATURDAY FROM 9:00PM UNTIL 6:00AM THE FOLLOWING DAY UNLESS OTHERWISE APPROVED

The time of availability for this intermediate contract work shall be the time the Contractor begins work.

The completion time for this intermediate contract work shall be the time the Contractor completes work.

The liquidated damages are **Two Hundred Fifty Dollars (\$250.00)** per hour or portion thereof.

PROSECUTION OF WORK:

(7-1-95) (Rev. 8-21-12)

108

SP1 G15R

The Contractor will be required to prosecute the work in a continuous and uninterrupted manner from the time he begins the work until completion and final acceptance of the project. The Contractor will not be permitted to suspend his operations except for reasons beyond his control or except where the Engineer has authorized a suspension of the Contractor's operations in writing.

In the event that the Contractor's operations are suspended in violation of the above provisions, the sum of \$ **250.00** will be charged the Contractor for each and every calendar day that such suspension takes place. The said amount is hereby agreed upon as liquidated damages due to extra engineering and maintenance costs and due to increased public hazard resulting from a suspension of the work. Liquidated damages chargeable due to suspension of the work will be additional to any liquidated damages that may become chargeable due to failure to complete the work on time.

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
34	Generic Structure Item 24" Steel Fender Pipe Piles

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
23 - 28	Erosion Control

STEEL PRICE ADJUSTMENT:

(4-19-22)(Rev. 12-20-22)

SP1 G47

Description and Purpose

Steel price adjustments will be made to the payments due the Contractor for items as defined herein that are permanently incorporated into the work, when the price of raw steel mill products utilized on the contract have fluctuated. The Department will adjust monthly progress payments up or down as appropriate for cost changes in steel according to this provision.

Eligible Items

The list of eligible bid items for steel price adjustment can be found on the Departments website at the following address:

<https://connect.ncdot.gov/letting/LetCentral/Eligible%20Bid%20Items%20for%20Steel%20Price%20Adjustment.xlsx>

Nuts, bolts, anchor bolts, rebar chairs, connecting bands and other miscellaneous hardware associated with these items shall not be included in the price adjustment.

Adjustments will only be made for fluctuations in the material cost of the steel used in the above products as specified in the Product Relationship Table below. The producing mill is defined as the source of steel product before any fabrication has occurred (e.g., coil, plate, rebar, hot rolled shapes, etc.). No adjustment will be made for changes in the cost of fabrication, coating, shipping, storage, etc.

No steel price adjustments will be made for any products manufactured from steel having an adjustment date, as defined by the Product Relationship Table below, prior to the letting date.

Bid Submittal Requirements

The successful bidder, within 14 calendar days after the notice of award is received by him, shall provide the completed Form SPA-1 to the Department (State Contract Officer or Division Contract Engineer) along with the payment bonds, performance bonds and contract execution signature sheets in a single submittal. If Form SPA-1 is not included in the same submittal as the payment bonds, performance bonds and contract execution signature sheets, the Contractor will not be eligible for any steel price adjustment for any item in the contract for the life of the contract. Form SPA-1 can be found on the Department's website at the following address:

<https://connect.ncdot.gov/letting/LetCentral/Form%20SPA-1.xlsm>

The Contractor shall provide Form SPA-1 listing the Contract Line Number, (with corresponding Item Number, Item Description, and Category) for the steel products they wish to have an adjustment calculated. Only the contract items corresponding to the list of eligible item numbers for steel price adjustment may be entered on Form SPA-1. The Contractor may choose to have steel price adjustment applied to any, all, or none of the eligible items. However, the Contractor's selection of items for steel price adjustment or non-selection (non-participation) may not be changed once Form SPA-1 has been received by the Department. Items the Bidder chooses for steel price adjustment must be designated by writing the word "Yes" in the column titled "Option" by each Pay Item chosen for adjustment. Should the bidder elect an eligible steel price item, the entire quantity of the line item will be subject to the price adjustment for the duration of the Contract. The Bidder's designations on Form SPA-1 must be written in ink or typed and signed by the Bidder (Prime Contractor) to be considered complete. Items not properly designated, designated with "No", or left blank on the Bidder's Form SPA-1 will automatically be removed from consideration for adjustment. No steel items will be eligible for steel price adjustment on this Project if the Bidder fails to return Form SPA-1 in accordance with this provision.

Establishing the Base Price

The Department will use a blend of monthly average prices as reported from the Fastmarkets platform to calculate the monthly adjustment indices (BI and MI). This data is typically available on the first day of the month for the preceding month. The indices will be calculated by the Department for the different categories found on the Product Relationship Table below. For item numbers that include multiple types of steel products, the category listed for that item number will be used for adjusting each steel component.

The bidding index for Category 1 Steel items is **\$ 48.00** per hundredweight.
 The bidding index for Category 2 Steel items is **\$ 55.81** per hundredweight.
 The bidding index for Category 3 Steel items is **\$ 75.00** per hundredweight.
 The bidding index for Category 4 Steel items is **\$ 50.26** per hundredweight.
 The bidding index for Category 5 Steel items is **\$ 57.44** per hundredweight.
 The bidding index for Category 6 Steel items is **\$ 66.87** per hundredweight.
 The bidding index for Category 7 Steel items is **\$ 50.10** per hundredweight.

The bidding index represents a selling price of steel based on Fastmarkets data for the month of **February 2026**.

MI = Monthly Index. – in Dollars (\$) per hundredweight (CWT). Use the adjustment indices from the month the steel was shipped from the producing mill, received on the project, or member cast as defined in the Product Relationship Table.

BI = Bidding Index. - in Dollars (\$) per hundredweight (CWT). Use the adjustment indices as listed in the proposal.

<i>Product Relationship Table</i>			
<i>Steel Product (Title)</i>	BI, MI*	Adjustment Date for MI	Category
Reinforcing Steel, Bridge Deck, and SIP Forms	Based on one or more Fastmarkets indices	Delivery Date from Producing Mill	1
Structural Steel and Encasement Pipe	Based on one or more Fastmarkets indices	Delivery Date from Producing Mill	2
Steel H-Piles, Soldier Pile Walls	Based on one or more Fastmarkets indices	Delivery Date from Producing Mill	3
Guardrail Items and Pipe Piles	Based on one or more Fastmarkets indices	Material Received Date**	4
Fence Items	Based on one or more Fastmarkets indices	Material Received Date**	5
Overhead Sign Assembly, Signal Poles, High Mount Standards	Based on one or more Fastmarkets indices	Material Received Date**	6
Prestressed Concrete Members	Based on one or more Fastmarkets indices	Cast Date of Member	7

* BI and MI are in converted units of Dollars per Hundredweight (\$/CWT)

** Material Received Date is defined as the date the materials are received on the project site. If a material prepayment is made for a Category 4-6 item, the Adjustment Date to be used will be the date of the prepayment request instead of the Materials Received Date.

Submit documentation to the Engineer for all items listed in the Contract for which the Contractor is requesting a steel price adjustment.

Submittal Requirements

The items in categories 1,2, and 3, shall be specifically stored, labeled, or tagged, recognizable by color marking, and identifiable by Project for inspection and audit verification immediately upon arrival at the fabricator.

Furnish the following documentation for all steel products to be incorporated into the work and documented on Form SPA-2, found on the Departments website at the following address:

<https://connect.ncdot.gov/projects/construction/Construction%20Forms/Form%20SPA-2.xlsx>

Submit all documentation to the Engineer prior to incorporation of the steel into the completed work. The Department will withhold progress payments for the affected contract line item if the documentation is not provided and at the discretion of the Engineer the work is allowed to proceed. Progress payments will be made upon receipt of the delinquent documentation.

Step 1 (Form SPA -2)

Utilizing Form SPA-2, submit separate documentation packages for each line item from Form SPA-1 for which the Contractor opted for a steel price adjustment. For line items with multiple components of steel, each component should be listed separately. Label each SPA-2 documentation package with a unique number as described below.

- a. Documentation package number: (Insert the contract line-item) - (Insert sequential package number beginning with "1").

Example: 412 - 1,

412 - 2,

424 - 1,

424 - 2,

424 - 3, etc.

- b. The steel product quantity in pounds
 - i. The following sources should be used, in declining order of precedence, to determine the weight of steel/iron, based on the Engineers decision:
 1. Department established weights of steel/iron by contract pay item per pay unit;
 2. Approved Shop Drawings;
 3. Verified Shipping Documents;
 4. Contract Plans;
 5. Standard Drawing Sheets;

6. Industry Standards (i.e., AISC Manual of Steel Construction, AWWA Standards, etc.); and
 7. Manufacture's data.
- ii. Any item requiring approved shop drawings shall have the weights of steel calculated and shown on the shop drawings or submitted and certified separately by the fabricator.
- c. The date the steel product, subject to adjustment, was shipped from the producing mill (Categories 1-3), received on the project (Categories 4-6), or casting date (Category 7).

Step 2 (Monthly Calculator Spreadsheet)

For each month, upon the incorporation of the steel product into the work, provide the Engineer the following:

- 1) Completed NCDOT Steel Price Adjustment Calculator Spreadsheet, summarizing all the steel submittal packages (Form SPA-2) actually incorporated into the completed work in the given month.
 - a. Contract Number
 - b. Bidding Index Reference Month
 - c. Contract Completion Date or Revised Completion Date
 - d. County, Route, and Project TIP information
 - e. Item Number
 - f. Line-Item Description
 - g. Submittal Number from Form SPA-2
 - h. Adjustment date
 - i. Pounds of Steel
- 2) An affidavit signed by the Contractor stating the documentation provided in the NCDOT Steel Price Adjustment Calculator Spreadsheet is true and accurate.

Price Adjustment Conditions

Download the Monthly Steel Adjustment Spreadsheet with the most current reference data from the Department's website each month at the following address:

<https://connect.ncdot.gov/projects/construction/Construction%20Forms/Form%20SPA-3%20NCDOT%20Steel%20Price%20Adjustment%20Calculator.xlsx>

If the monthly Fastmarkets data is not available, the data for the most recent immediately preceding month will be used as the basis for adjustment.

Price Adjustment Calculations

The price adjustment will be determined by comparing the percentage of change in index value listed in the proposal (BI) to the monthly index value (MI). (See included sample examples). Weights and date of shipment must be documented as required herein. The final price adjustment dollar value will be determined by multiplying this percentage increase or decrease in the index by the represented quantity of steel incorporated into the work, and the established bidding index (BI) subject to the limitations herein.

Price increase/decrease will be computed as follows:

$$\text{SPA} = ((\text{MI} / \text{BI}) - 1) * \text{BI} * (\text{Q} / 100)$$

Where;

SPA = Steel price adjustment in dollars

MI = Monthly Shipping Index. – in Dollars (\$) per hundredweight (CWT). Use the adjustment indices from the month the steel was shipped from the producing mill, received on the project, or member cast as defined in the Product Relationship Table.

BI = Bidding Index. - in Dollars (\$) per hundredweight (CWT). Use the adjustment indices as listed in the proposal.

Q = Quantity of steel, product, pounds actually incorporated into the work as documented by the Contractor, or Design Build Team and verified by the Engineer.

Calculations for price adjustment shall be shown separate from the monthly progress estimate and will not be included in the total cost of work for determination of progress or for extension of Contract time in accordance with Subarticle 108-10(B)(1).

Any apparent attempt to unbalance bids in favor of items subject to price adjustment may result in rejection of the bid proposal.

Adjustments will be paid or charged to the Contractor only. Any Contractor receiving an adjustment under this provision shall distribute the proper proportional part of such adjustments to the subcontractor who performed the applicable work.

Delays to the work caused by steel shortages may be justification for a Contract time extension but will not constitute grounds for claims for standby equipment, extended office overhead, or other costs associated with such delays.

If an increase in the steel material price is anticipated to exceed 50% of the original quoted price, the contractor must notify the Department within 7 days prior to purchasing the material. Upon receipt of such notification, the Department will direct the Contractor to either (1) proceed with the work or (2) suspend the work and explore the use of alternate options.

If the decrease in the steel material exceeds 50% of the original quoted price, the contractor may submit to the Department additional market index information specific to the item in question to dispute the decrease. The Department will review this information and determine if the decrease is warranted.

When the steel product adjustment date, as defined in the Product Relationship Table, is after the approved contract completion date, the steel price adjustments will be based on the lesser value of either the MI for the month of the approved contract completion date or the MI for the actual adjustment date.

If the price adjustment is based on estimated material quantities for that time, and a revision to the total material quantity is made in a subsequent or final estimate, an appropriate adjustment will be made to the price adjustment previously calculated. The adjustment will be based on the same indices used to calculate the price adjustment which is being revised. If the adjustment date of the revised material quantity cannot be determined, the adjustment for the quantity in question, will be based on the indices utilized to calculate the steel price adjustment for the last initial documentation package submission, for the steel product subject to adjustment, that was incorporated into the particular item of work, for which quantities are being finalized.

Example: Structural steel for a particular bridge was provided for in three different shipments with each having a different mill shipping date. The quantity of structural steel actually used for the bridge was calculated and a steel price adjustment was made in a progress payment. At the conclusion of the work an error was found in the plans of the final quantity of structural steel used for the bridge. The quantity to be adjusted cannot be directly related to any one of the three mill shipping dates. The steel price adjustment for the quantity in question would be calculated using the indices that were utilized to calculate the steel price adjustment for the quantity of structural steel represented by the last initial structural steel documentation package submission. The package used will be the one with the greatest sequential number.

Extra Work/Force Account:

When steel products, as specified herein, are added to the contract as extra work, in accordance with the provisions of Article 104-7 or 104-3, the Engineer will determine and specify in the supplemental agreement, the need for application of steel price adjustments on a case-by-case basis. No steel price adjustments will be made for any products manufactured from steel having an adjustment date prior to the supplemental agreement execution date. Price adjustments will be made as provided herein, except the Bidding Index will be based on the month in which the supplemental agreement pricing was executed.

For work performed on force account basis, reimbursement of actual material costs, along with the specified overhead and profit markup, will be considered to include full compensation for the current cost of steel and no steel price adjustments will be made.

Examples Form SPA-2

Steel Price Adjustment Submission Form

Contract Number C203394 Bid Reference Month January 2019

Submittal Date 8/31/2019

Contract Line Item 237

Line Item Description APPROX....LBS Structural Steel

Sequential Submittal Number 2

Supplier	Description of material	Location information	Quantity in lbs.	Adjustment Date
XYZ mill	Structural Steel	Structure 3, Spans A-C	1,200,000	May 4, 2020
ABC distributing	Various channel & angle shapes	Structure 3 Spans A-C	35,000	July 14, 2020
		Total Pounds of Steel	1,235,000	

- Note: Attach the following supporting documentation to this form.
- Bill of Lading to support the shipping dates
 - Supporting information for weight documentation (e.g., Pay item reference, Shop drawings, shipping documents, Standards Sheets, industry standards, or manufacturer's data)

By providing this data under my signature, I attest to the accuracy of and validity of the data on this form and certify that no deliberate misrepresentation in any manner has occurred.

Printed Name

Signature

Examples Form SPA-2
Steel Price Adjustment Submission Form

Contract Number C203394 Bid Reference Month January 2019

Submittal Date August 31, 2019

Contract Line Item 237

Line Item Description SUPPORT, OVRHD SIGN STR -DFEB – STA 36+00

Sequential Submittal Number 2

Supplier	Description of material	Location information	Quantity in lbs.	Adjustment Date
XYZ mill	Tubular Steel (Vertical legs)	<u>-DFEB – STA 36+00</u>	12000	December 11, 2021
PDQ Mill	4” Tubular steel (Horizontal legs)	<u>-DFEB – STA 36+00</u>	5900	December 11, 2021
ABC distributing	Various channel & angle shapes (see quote)	<u>-DFEB – STA 36+00</u>	1300	December 11, 2021
	Catwalk assembly	<u>-DFEB – STA 36+00</u>	2000	December 11, 2021
Nucor	Flat plate	<u>-DFEB – STA 36+00</u>	650	December 11, 2021
		Total Pounds of Steel	21,850	

Note: Attach the following supporting documentation to this form.

- Bill of Lading to support the shipping dates
- Supporting information for weight documentation (e.g., Pay item reference, Shop drawings, shipping documents, Standards Sheets, industry standards, or manufacturer's data)

By providing this data under my signature, I attest to the accuracy of and validity of the data on this form and certify that no deliberate misrepresentation in any manner has occurred.

Printed Name

Signature

Price Adjustment Sample Calculation (increase)

Project bid on September 17, 2019

Line Item 635 "Structural Steel" has a plan quantity of 2,717,000 lbs.

Bidding Index for Structural Steel (Category 2) in the proposal was \$36.12/CWT = BI

450,000 lbs. of Structural Steel for Structure 2 at Station 44+08.60 were shipped to fabricator from the producing mill in same month, May 2021.

Monthly Index for Structural Steel (Category 2) for May 2021 was \$64.89/CWT = MI

The Steel Price Adjustment formula is as follows:

$$\text{SPA} = ((\text{MI} / \text{BI}) - 1) * \text{BI} * (\text{Q} / 100)$$

Where; SPA = Steel price adjustment in dollars

BI = Bidding Index – in dollars (\$) per hundredweight (CWT). Use the adjustment indices as listed in the proposal.

MI = Mill Shipping Index – in dollars (\$) per hundredweight (CWT). Use the adjustment indices from the month the steel was shipped from the producing mill, received on the project, or member cast as defined in the Product Relationship Table.

Q = Quantity of steel product, in pounds (lbs.) actually incorporated into the work as documented by the Contractor, or Design Build Team and verified by the Engineer.

$$\text{BI} = \$36.12 / \text{CWT}$$

$$\text{MI} = \$64.89 / \text{CWT}$$

$$\% \text{ change} = ((\text{MI} / \text{BI}) - 1) = (\$64.89 / \$36.12 - 1) = (1.79651 - 1) = 0.79651162791$$

$$\text{Q} = 450,000 \text{ lbs.}$$

$$\text{SPA} = 0.79651162791 \times \$36.12 \times (450,000 / 100)$$

$$\text{SPA} = 0.79651162791 * \$36.12 * 4,500$$

$$\text{SPA} = \$129,465 \text{ pay adjustment to Contractor for Structural Steel (Structure 2 at Station 44+08.60)}$$

Price Adjustment Sample Calculation (decrease)

Project bid on December 18, 2018

Line Item 635 Structural Steel has a plan quantity of 2,717,000 lbs.

Bidding Index for Structural Steel (Category 2) in the proposal was \$46.72/CWT = BI

600,000 lbs. of Structural Steel for Structure 1 at Station 22+57.68 were shipped to fabricator from the producing mill in same month, August 2020.

Monthly Index for Structural Steel (Category 2) for August 2020 was \$27.03/CWT = MI

The Steel Price Adjustment formula is as follows:

$$\text{SPA} = ((\text{MI} / \text{BI}) - 1) * \text{BI} * (\text{Q} / 100)$$

Where; SPA = Steel price adjustment in dollars

BI = Bidding Index – in dollars (\$) per hundredweight (CWT). Use the adjustment indices as listed in the proposal.

MI = Mill Shipping Index – in dollars (\$) per hundredweight (CWT). Use the adjustment indices from the month the steel was shipped from the producing mill, received on the project, or member cast as defined in the Product Relationship Table.

Q = Quantity of steel product, in pounds (lbs.) actually incorporated into the work as documented by the Contractor, or Design Build Team and verified by the Engineer.

$$\text{BI} = \$46.72 / \text{CWT}$$

$$\text{MI} = \$27.03 / \text{CWT}$$

$$\% \text{ change} = ((\text{MI} / \text{BI}) - 1) = (\$27.03 / \$46.72 - 1) = (0.57855 - 1) = -0.421446917808$$

$$\text{Q} = 600,000 \text{ lbs.}$$

$$\text{SPA} = -0.421446917808 * \$46.72 * (600,000 / 100)$$

$$\text{SPA} = -0.421446917808 * \$46.72 * 6,000$$

$$\text{SPA} = \$ 118,140.00 \text{ Credit to the Department for Structural Steel (Structure 1 at Station 22+57.68)}$$

Price Adjustment Sample Calculation (increase)

Project bid on July 16, 2020

Line Item 614 Reinforced Concrete Deck Slab has a plan quantity of 241974 lbs.

Bidding Index Reference Month was May 2020. Bidding Index for Reinforced Concrete Deck Slab (Category 1) in the proposal was \$29.21/CWT = BI

51,621 lbs. of reinforcing steel and 52,311 lbs. of epoxy coated reinforcing steel for Structure 2 at Station 107+45.55 -L- was shipped to fabricator from the producing mill in same month, May 2021.

Monthly Index for Reinforced Concrete Deck Slab (Category 1) for May 2021 was \$43.13/CWT = MI

The Steel Price Adjustment formula is as follows:

$$\text{SPA} = ((\text{MI} / \text{BI}) - 1) * \text{BI} * (\text{Q} / 100)$$

Where; SPA = Steel price adjustment in dollars

BI = Bidding Index – in dollars (\$) per hundredweight (CWT). Use the adjustment indices as listed in the proposal.

MI = Mill Shipping Index – in dollars (\$) per hundredweight (CWT). Use the adjustment indices from the month the steel was shipped from the producing mill, received on the project, or member cast as defined in the Product Relationship Table.

Q = Quantity of steel product, in pounds (lbs.) actually incorporated into the work as documented by the Contractor, or Design Build Team and verified by the Engineer.

$$\text{BI} = \$29.21 / \text{CWT}$$

$$\text{MI} = \$43.13 / \text{CWT}$$

$$\% \text{ change} = ((\text{MI} / \text{BI}) - 1) = (\$43.13 / \$29.21 - 1) = (1.47655 - 1) = 0.47654912701$$

$$\text{Q} = 103932 \text{ lbs.}$$

$$\text{SPA} = 0.47654912701 * \$29.21 * (103,932 / 100)$$

$$\text{SPA} = 0.47654912701 * \$29.21 * 1,039.32$$

SPA = \$14,467.33 Pay Adjustment to Contractor for Reinforced Concrete Deck Slab (Category 1) at Station 107+45.55 -L-

DISADVANTAGED BUSINESS ENTERPRISE (DIVISIONS):

(10-16-07)(Rev. 10-21-25)

102-15(J)

SP1 G62

Description

The purpose of this Special Provision is to carry out the U.S. Department of Transportation's policy of ensuring nondiscrimination in the award and administration of contracts financed in whole or in part with Federal funds. This provision is guided by 49 CFR Part 26.

Definitions

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

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

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

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

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

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

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) DBE firm.

North Carolina Unified Certification Program (NCUCP) - A program that provides comprehensive services and information to applicants for DBE certification, such that an applicant is required to apply only once for a DBE certification that will be honored by all recipients of USDOT funds in the state and not limited to the Department of Transportation only. The Certification Program is 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.

Forms and Websites Referenced in this Provision

DBE Payment Tracking System - On-line system in which the Contractor enters the payments made to DBE 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 DBE 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 DBE Replacement Request Form - Form for replacing a committed DBE.
<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 DBE subcontractor, manufacturer or regular dealer that affirms that a portion of said contract is going to be performed by the signed DBE 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 DBE Subcontractors Form - Form for entering DBE subcontractors on a project that will meet this DBE goal. This form is for paper bids only.

[http://connect.ncdot.gov/municipalities/Bid%20Proposals%20for%20LGA%20Content/08%20DBE%20Subcontractors%20\(Federal\).docx](http://connect.ncdot.gov/municipalities/Bid%20Proposals%20for%20LGA%20Content/08%20DBE%20Subcontractors%20(Federal).docx)

Subcontractor Quote Comparison Sheet - Spreadsheet for showing all subcontractor quotes in the work areas where DBEs 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>

DBE Goal

There is NO goal for participation by Disadvantaged Business Enterprises for this contract.

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 DBE certified shall be used to meet the DBE goal. The Directory can be found at the following link. [https:// www.ebs.nc.gov/VendorDirectory/default.html](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 DBE Subcontractors

At the time of bid, bidders shall submit all DBE participation that they anticipate to use during the life of the contract. Only those identified to meet the DBE goal will be considered committed, even though the listing shall include both committed DBE subcontractors and additional DBE subcontractors. Additional DBE subcontractor participation submitted at the time of bid will be used toward the Department's overall race-neutral goal. Only those firms with current DBE certification at the time of bid opening will be acceptable for listing in the bidder's submittal of DBE participation. The Contractor shall indicate the following required information:

(A) Electronic Bids

Bidders shall submit a listing of DBE participation in the appropriate section of the electronic submittal file.

- (1) Submit the names and addresses of DBE firms identified to participate in the contract. If the bidder uses the updated listing of DBE firms shown in the electronic submittal file, the bidder may use the dropdown menu to access the name and address of the DBE firm.
- (2) Submit the contract line numbers of work to be performed by each DBE firm. When no figures or firms are entered, the bidder will be considered to have no DBE participation.
- (3) The bidder shall be responsible for ensuring that the DBE 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 DBE's participation will not count towards achieving the DBE goal.

(B) Paper Bids

- (1) *If the DBE goal is more than zero,*
 - (a) Bidders, at the time the bid proposal is submitted, shall submit a listing of DBE participation, including the names and addresses on *Listing of DBE 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 DBE participation for the contract.
 - (b) If bidders have no DBE participation, they shall indicate this on the *Listing of DBE 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 DBE 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 DBE 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 DBE's participation will not count towards achieving the DBE goal.
- (2) *If the DBE goal is zero,* entries on the *Listing of DBE Subcontractors* are not required, however any DBE participation that is achieved during the project shall be reported in accordance with requirements contained elsewhere in the special provision.

DBE Prime Contractor

When a certified DBE firm bids on a contract that contains a DBE goal, the DBE 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 DBE bidder on a contract will meet the DBE goal by virtue of the work it performs on the contract with its own forces. However, all the work that is performed by the DBE bidder and any other DBE subcontractors will count toward the DBE goal. The DBE bidder shall list itself along with any DBE subcontractors, if any, in order to receive credit toward the DBE goal.

For example, if the DBE goal is 45% and the DBE bidder will only perform 40% of the contract work, the prime will list itself at 40%, and the additional 5% shall be obtained through additional DBE participation with DBE subcontractors or documented through a good faith effort.

DBE prime contractors shall also follow Sections A or B listed under *Listing of DBE Subcontractor* just as a non-DBE bidder would.

Written Documentation – Letter of Intent

The bidder shall submit written documentation for each DBE that will be used to meet the DBE goal of the contract, indicating the bidder's commitment to use the DBE 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 DBE to be used toward the DBE goal, or if the form is incomplete (i.e. both signatures are not present), the DBE participation will not count toward meeting the DBE goal. If the lack of this participation drops the commitment below the DBE goal, the Contractor shall submit evidence of good faith efforts, completed in its entirety, to the Engineer no later than 2:00 p.m. on 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.

Submission of Good Faith Effort

If the bidder fails to meet or exceed the DBE goal the apparent lowest responsive bidder shall submit to the Department documentation of adequate good faith efforts made to reach the DBE 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 DBE 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 DBE Goals 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 DBE participation. Adequate good faith efforts also mean that the bidder actively and aggressively sought DBE 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 goal 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 DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within at least 10 days prior to bid opening to allow the DBEs to respond to the solicitation. Solicitation shall provide the opportunity to DBEs within the Division and surrounding Divisions where the project is located. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
- (B) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved.
 - (1) Where appropriate, break out contract work items into economically feasible units to facilitate DBE 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 contract DBE goal when the work to be sublet includes potential for DBE participation (2nd and 3rd tier subcontractors).
- (C) Providing interested DBEs 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 DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence

of such negotiation includes the names, addresses, and telephone numbers of DBEs 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 DBEs to perform the work.

- (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE 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 DBEs if the price difference is excessive or unreasonable.
- (E) Not rejecting DBEs 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 DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or bidder.
- (G) Making efforts to assist interested DBEs 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 DBEs. 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 DBE quotes.
- (I) Any other evidence that the bidder submits which shows that the bidder has made reasonable good faith efforts to meet the DBE 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 DBE goal.
- (2) The bidders' past performance in meeting the DBE goals.
- (3) The performance of other bidders in meeting the DBE goal. For example, when the apparent successful bidder fails to meet the DBE 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 DBE goal, but meets or exceeds the average DBE 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 DBE goal can be met or that an adequate good faith effort has been made to meet the DBE 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 DBE Participation Toward Meeting DBE Goal

(A) Participation

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

(B) Joint Checks

Prior notification of joint check use shall be required when counting DBE 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 DBE may enter into subcontracts. Work that a DBE subcontracts to another DBE firm may be counted toward the contract goal requirement. Work that a DBE subcontracts to a non-DBE firm does not count toward the contract goal requirement. If a DBE 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 DBE is not performing a commercially useful function. The DBE may present evidence to rebut this presumption to the Department. The Department's decision on the rebuttal of this presumption is subject to review by the Federal Highway Administration but is not administratively appealable to USDOT.

(D) Joint Venture

When a DBE 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 DBE in the joint venture, that portion of the total dollar value being a distinct clearly defined portion of work that the DBE performs with its forces.

(E) Manufacturer, Regular Dealer, Distributor

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

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

- (1) The fees or commissions charged by a DBE 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 DBE, 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 DBE 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) DBE Utilization

The Contractor may count toward its contract goal requirement only expenditures to DBEs that perform a commercially useful function in the work of a contract. A DBE 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 DBE 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 DBE 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 DBE credit claimed for its performance of the work, and any other relevant factors.

(B) DBE Utilization in Trucking

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

- (1) The DBE 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 DBE goals.
- (2) The DBE shall itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
- (3) The DBE 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 DBE may subcontract the work to another DBE firm, including an owner-operator who is certified as a DBE. The DBE who subcontracts work to another DBE receives credit for the total value of the transportation services the subcontracted DBE provides on the contract.
- (5) The DBE may also subcontract the work to a non-DBE firm, including from an owner-operator. The DBE who subcontracts the work to a non-DBE is entitled to credit for the total value of transportation services provided by the non-DBE subcontractor not to exceed the value of transportation services provided by DBE-owned trucks on the contract. Additional participation by non-DBE 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 DBE and the Contractor will not count towards the DBE contract requirement.
- (6) A DBE may lease truck(s) from an established equipment leasing business open to the general public. The lease must indicate that the DBE 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 DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. This type of lease may count toward the DBE's credit as long as the driver is under the DBE's payroll.
- (7) Subcontracted/leased trucks shall display clearly on the dashboard the name of the DBE 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.

DBE Replacement

When a Contractor has relied on a commitment to a DBE subcontractor (or an approved substitute DBE subcontractor) to meet all or part of a contract goal requirement, the contractor shall not terminate the DBE 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 DBE subcontractor, a non-DBE 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 DBE subcontractor, with a copy to the Engineer of its intent to request to terminate a DBE subcontractor or any portion of its work, and the reason for the request. The Contractor must give the DBE subcontractor five (5) business days to respond to the Contractor's Notice of Intent to Request Termination and/or Substitution. If the DBE subcontractor objects to the intended termination/substitution, the DBE, 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 DBE subcontractor.

A committed DBE 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 DBE 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 DBE was engaged, or so that the Contractor can substitute another DBE or non-DBE contractor after contract award. For purposes of this section, good cause shall include the following circumstances:

- (a) The listed DBE subcontractor fails or refuses to execute a written contract;
- (b) The listed DBE 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 DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (c) The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;
- (d) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (e) The listed DBE 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 DBE subcontractor is not a responsible contractor;
- (g) The listed DBE voluntarily withdraws from the project and provides written notice of withdrawal;
- (h) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (i) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract; and
- (j) Other documented good cause that compels the termination of the DBE subcontractor.

The Contractor shall comply with the following for replacement of a committed DBE:

(A) Performance Related Replacement

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

If a replacement DBE is not found that can perform at least the same amount of work as the terminated DBE, 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 DBEs that their interest is solicited in contracting the work defaulted by the previous DBE or in subcontracting other items of work in the contract.
- (2) Efforts to negotiate with DBEs for specific subbids including, at a minimum:
 - (a) The names, addresses, and telephone numbers of DBEs who were contacted.
 - (b) A description of the information provided to DBEs regarding the plans and specifications for portions of the work to be performed.
- (3) A list of reasons why DBE quotes were not accepted.
- (4) Efforts made to assist the DBEs contacted, if needed, in obtaining bonding or insurance required by the Contractor.

(B) Decertification Replacement

- (1) When a committed DBE 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 DBE 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 DBE'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 DBE's ineligibility is caused solely by its acquisition by or merger with a non-DBE 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 DBE that was later decertified.

- (2) When a committed DBE is decertified prior to the Department receiving the SAF (*Subcontract Approval Form*) for the named DBE firm, the Contractor shall take all necessary and reasonable steps to replace the DBE subcontractor with another DBE subcontractor to perform at least the same amount of work to meet the DBE goal requirement. If a DBE 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 DBE 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 DBE, 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 DBE based upon the Contractor's commitment, the DBE shall participate in additional work to the same extent as the DBE 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 DBEs 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 DBE, the Contractor shall seek participation by DBEs 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 DBE, the Contractor shall seek additional participation by DBEs equal to the reduced DBE 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 DBE subcontractor. The Department reserves the right to require copies of actual subcontract agreements involving DBE 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 DBE 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 DBE credit.

Reporting Disadvantaged Business Enterprise Participation

The Contractor shall provide the Engineer with an accounting of payments made to all DBE 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 DBEs, 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 work on future projects until the required information is submitted.

Contractors reporting transportation services provided by non-DBE 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.

CERTIFICATION FOR FEDERAL-AID CONTRACTS:

(3-21-90)

SP1 G85

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (A) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (B) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, *Disclosure Form to Report Lobbying*, in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by *Section 1352, Title 31, U.S. Code*. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

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. 3-17-26)

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, 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.

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.

U.S. DEPARTMENT OF TRANSPORTATION HOTLINE:

(11-22-94)

108-5

SP1 G100

To report bid rigging activities call: **1-800-424-9071**

The U.S. Department of Transportation (DOT) operates the above toll-free hotline Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the hotline to report such activities.

The hotline is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

COOPERATION BETWEEN CONTRACTORS:

(7-1-95)(Rev. 1-16-24)

105-7

SP1 G133

The Contractor's attention is directed to Article 105-7 of the Standard Specifications.

DA00668 – Milling and Resurfacing of various Primary and Secondary Routes, and the Parking Lot at the Hatteras Ferry Docks, in Dare County. [Anticipated Let Date, 6/10/2026 with 18 Month duration]

The Contractor on this project shall cooperate with the Contractor working within or adjacent to the limits of this project to the extent that the work can be carried out to the best advantage of all concerned.

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.

NOTES TO CONTRACTOR:

(8-19-25)

SP1 G999B

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

*Any construction associated with the project will follow the U.S. Fish and Wildlife Service (USFWS) Raleigh Field Office "Guidelines for Avoiding Impacts to West Indian Manatee" to avoid impacts to the manatee.

*NCDOT will continue to coordinate with the National Park Service (NPS) throughout the development and implementation of the project to obtain a Special Use Permit and ensure compliance with NPS policy/regulations.

*Should construction unearth cultural resources, work will be stopped in the area of discovery and the park will consult with the State Historic Preservation Officer and the in accordance with §36 CFR 800.13, Post Review Discoveries. In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) will be followed

*-Per Green Sheet Commitments.

PROJECT SPECIAL PROVISIONS**ROADWAY****TIMBER AND LUMBER:**

(4-21-26)

235, 866, 1046, 1050, 1082, 1084, 1089, 1540

SP10 R82

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 AWWA 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 AWP Standards” with “AASHTO M 133 and AWP 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 AWP Standards U1” with “AASHTO M 133 and AWP Standards U1”.

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

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

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

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

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:

<u>Restricted Noxious Weed</u>	<u>Limitations per Lb. Of Seed</u>	<u>Restricted Noxious Weed</u>	<u>Limitations per Lb. of Seed</u>
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)	Bermudagrass
Kobe Lespedeza	Browntop Millet
Korean Lespedeza	German Millet – Strain R
Weeping Lovegrass	Clover – Red/White/Crimson
Carpetgrass	

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	Japanese Millet
Crownvetch	Reed Canary Grass
Pensacola Bahiagrass	Zoysia

Creeping Red Fescue

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. 4-21-26)

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 1-36, 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 6-50, 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”.

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**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 U.S.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. (<i>Executive Order 13166</i>)
Color	Color of skin, including shade of skin within a racial group	Black, White, brown, yellow, etc.	
National Origin (<i>Limited English Proficiency</i>)	Place of birth. Citizenship is not a factor. (<i>Discrimination based on language or a person's accent is also covered</i>)	Mexican, Cuban, Japanese, Vietnamese, Chinese	
Sex	Gender. The sex of an individual. <i>Note: Sex under this program does not include sexual orientation.</i>	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) (<i>Religion/ Creed in all aspects of any aviation or transit-related construction</i>)	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. <i>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.</i>	Muslim, Christian, Sikh, Hindu, etc.	Title VII of the Civil Rights Act of 1964; 23 CFR 230; FHWA-1273 Required Contract Provisions. (<i>49 U.S.C. 5332(b); 49 U.S.C. 47123</i>)

(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**MINORITY AND FEMALE EMPLOYMENT REQUIREMENTS**

Z-7

NOTICE OF REQUIREMENTS FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (*EXECUTIVE NUMBER 11246*)

1. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, see as shown on the attached sheet entitled "Employment Goals for Minority and Female participation".

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in *41 CFR Part 60-4* shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in *41 CFR 60-4.3(a)*, and its effort to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the executive Order and the regulations in *41 CFR Part 60-4*. Compliance with the goals will be measured against the total work hours performed.

2. As used in this Notice and in the contract resulting from this solicitation, the "covered area" is the county or counties shown on the cover sheet of the proposal form and contract.

**EMPLOYMENT GOALS FOR MINORITY
AND FEMALE PARTICIPATION**

Economic Areas

Area 023 29.7%

Bertie County
Camden County
Chowan County
Gates County
Hertford County
Pasquotank County
Perquimans County

Area 024 31.7%

Beaufort County
Carteret County
Craven County
Dare County
Edgecombe County
Green County
Halifax County
Hyde County
Jones County
Lenoir County
Martin County
Nash County
Northampton County
Pamlico County
Pitt County
Tyrrell County
Washington County
Wayne County
Wilson County

Area 025 23.5%

Columbus County
Duplin County
Onslow County
Pender County

Area 026 33.5%

Bladen County
Hoke County
Richmond County
Robeson County
Sampson County
Scotland County

Area 027 24.7%

Chatham County
Franklin County
Granville County
Harnett County
Johnston County
Lee County
Person County
Vance County
Warren County

Area 028 15.5%

Alleghany County
Ashe County
Caswell County
Davie County
Montgomery County
Moore County
Rockingham County
Surry County
Watauga County
Wilkes County

Area 029 15.7%

Alexander County
Anson County
Burke County
Cabarrus County
Caldwell County
Catawba County
Cleveland County
Iredell County
Lincoln County
Polk County
Rowan County
Rutherford County
Stanly County

Area 0480 8.5%

Buncombe County
Madison County

Area 030 6.3%

Avery County
Cherokee County
Clay County
Graham County
Haywood County
Henderson County
Jackson County
McDowell County
Macon County
Mitchell County
Swain County
Transylvania County
Yancey County

SMSA Areas

Area 5720 26.6%

Currituck County

Area 9200 20.7%

Brunswick County

New Hanover County

Area 2560 24.2%

Cumberland County

Area 6640 22.8%

Durham County

Orange County

Wake County

Area 1300 16.2%

Alamance County

Area 3120 16.4%

Davidson County

Forsyth County

Guilford County

Randolph County

Stokes County

Yadkin County

Area 1520 18.3%

Gaston County

Mecklenburg County

Union County

Goals for Female

Participation in Each Trade

(Statewide) 6.9%

FHWA-1273 -- Revised October 23, 2023

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.*

Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901-3907](#).

3. Records and certified payrolls (29 CFR 5.5)

a. Basic record requirements (1) Length of record retention. All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) Information required. Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) Additional records relating to fringe benefits. Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) Additional records relating to apprenticeship. Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. Certified payroll requirements (1) Frequency and method of submission. The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) Information required. The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) Statement of Compliance. Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) Use of Optional Form WH-347. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access (1) Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices (1) Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

- a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;
- b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;
- c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or
- d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or

cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS** (23 CFR 633, Subpart B, Appendix B)
This provision is applicable to all Federal-aid projects funded
under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

STANDARD SPECIAL PROVISION**ON-THE-JOB TRAINING**

(10-16-07) (Rev. 4-21-15)

Z-10

Description

The North Carolina Department of Transportation will administer a custom version of the Federal On-the-Job Training (OJT) Program, commonly referred to as the Alternate OJT Program. All contractors (existing and newcomers) will be automatically placed in the Alternate Program. Standard OJT requirements typically associated with individual projects will no longer be applied at the project level. Instead, these requirements will be applicable on an annual basis for each contractor administered by the OJT Program Manager.

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

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.

Minorities and Women

Developing, training and upgrading of minorities and women toward journeyman level status is a primary objective of this special training 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 Manager, will assign training goals for a calendar year based on the contractors' past three years' activity and the contractors' anticipated upcoming year's activity with the Department. At the beginning of each year, all contractors eligible 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 provide a self-imposed on-the-job training program for the calendar year. This agreement will include a specific number of annual training goals agreed to by both parties. The number of training assignments may range from 1 to 15 per contractor per calendar year. The Contractor shall sign an agreement 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. Preference shall be given to providing training in the following skilled work classifications:

Equipment Operators	Office Engineers
Truck Drivers	Estimators
Carpenters	Iron / Reinforcing Steel Workers
Concrete Finishers	Mechanics
Pipe Layers	Welders

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 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 apprentices or trainees in each occupation shall be in their first year of apprenticeship or 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 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 employed by him on the contract work who is 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.

STANDARD SPECIAL PROVISION
MINIMUM WAGES
GENERAL DECISION NC20260091 01/02/2026 NC91

Z-091

Date: January 2, 2026

General Decision Number: NC20260091 01/02/2026 NC91

Superseded General Decision Numbers: NC20250091

State: North Carolina

Construction Type: HIGHWAY

COUNTIES:

Beaufort	Granville	Pasquotank
Bertie	Halifax	Perquimans
Bladen	Harnett	Robeson
Camden	Hertford	Sampson
Carteret	Hyde	Scotland
Chowan	Jones	Tyrrell
Columbus	Lenoir	Vance
Craven	Martin	Warren
Dare	Northampton	Washington
Duplin	Pamlico	Wilson
Gates		

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Modification Number
0

Publication Date
01/02/2026

SUNC2014-006 11/17/2014

	Rates	Fringes
BLASTER	21.85	
CARPENTER	13.72	
CEMENT MASON/CONCRETE FINISHER	14.26	
ELECTRICIAN		
Electrician	18.69	2.66
Telecommunications Technician	14.72	1.67
IRONWORKER	16.32	
LABORER		
Asphalt Raker and Spreader	12.42	
Asphalt Screed/Jackman	13.48	
Carpenter Tender	10.85	
Cement Mason/Concrete Finisher Tender	11.35	
Common or General	10.12	
Guardrail/Fence Installer	13.39	
Pipelayer	13.31	
Traffic Signal/Lighting Installer	16.88	

	Rates	Fringes
PAINTER		
Bridge	19.62	
POWER EQUIPMENT OPERATORS		
Asphalt Broom Tractor	13.28	
Bulldozer Fine	18.46	
Bulldozer Rough	14.09	
Concrete Grinder/Groover	24.66	
Crane Boom Trucks	17.25	
Crane Other	21.48	
Crane Rough/All-Terrain	19.00	
Drill Operator Rock	15.43	1.61
Drill Operator Structure	19.12	
Excavator Fine	17.61	
Excavator Rough	12.99	
Grader/Blade Fine	16.73	
Grader/Blade Rough	15.28	
Loader 2 Cubic Yards or Less	10.28	
Loader Greater Than 2 Cubic Yards	13.58	
Material Transfer Vehicle (Shuttle Buggy)	17.39	
Mechanic	18.63	
Milling Machine	14.38	
Off-Road Hauler/Water Tanker	9.30	
Oiler/Greaser	13.45	
Pavement Marking Equipment	11.87	
Paver Asphalt	15.53	
Roller Asphalt Breakdown	12.13	
Roller Asphalt Finish	13.65	
Roller Other	10.48	
Scraper Finish	13.98	
Scraper Rough	10.17	
Slip Form Machine	19.29	
Tack Truck/Distributor Operator	14.56	
TRUCK DRIVER		
GVWR of 26,000 Lbs or Less	10.35	
GVWR of 26,001 Lbs or Greater	12.04	

Welders – Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than "SU", "UAVG", "SA", or "SC" denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The "SU" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted

average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

"SU" wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The "SA" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the "SA" identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

- 1) Has there been an initial decision in the matter? This can be:
 - a) a survey underlying a wage determination
 - b) an existing published wage determination
 - c) an initial WHD letter setting forth a position on a wage determination matter
 - d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, D.C. 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, D.C. 20210

- 2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via mail to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, D.C. 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

- 3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, D.C. 20210

END OF GENERAL DECISION

FERRY DIVISION SPECIAL PROVISIONS

DEMOLITION, REMOVAL OF FLOATING DOCKS AND RAMP

General

This section covers all demolition work indicated in the construction drawings, including removal and disposal of existing structures, components, and appurtenances as shown. The scope includes removal of floating docks, ramps, and any other items designated for demolition and or removal and disposal in the drawings. The Contractor shall furnish all labor, equipment, materials, and incidentals required to complete demolition in accordance with this special provision and the Contract Drawings.

Scope of Work

Demolition shall include, but is not limited to: removal of all structures and components identified in the demolition drawings; removal of floating docks and delivery to the North Carolina Department of Transportation (NCDOT) at the Manns Harbor Facility; removal and disposal of the existing ramp located at South Dock, as identified in the demolition drawings for Ocracoke; and removal of miscellaneous items and debris at Hatteras and Silver Lake Ferry Terminal as defined on the drawings.

Floating Dock Removal And Delivery

Floating docks shall be removed in a manner that prevents damage to adjacent structures, utilities, and the environment. The Contractor shall clean all floating dock components of debris and hazardous materials prior to transport. Delivery shall be coordinated with NCDOT to ensure proper scheduling and acceptance at the Manns Harbor Facility. The Contractor shall provide documentation of removal, cleaning, and delivery for each floating dock unit.

Ramp Removal and Disposal

The existing ramp located at the NCDOT Ocracoke North Ferry Terminal (South Dock) identified in the demolition drawings shall be removed and disposed of off-site in accordance with all applicable regulations. The Contractor shall ensure proper disposal at an approved facility and provide disposal documentation.

Environmental Compliance

Demolition activities shall comply with all applicable environmental regulations, permit conditions, and best management practices. The Contractor shall implement measures to prevent pollution and protect adjacent waters and habitats, including turbidity control using silt curtains or approved methods; spill prevention and response with on-site spill kits; proper waste handling and disposal of all demolition debris and hazardous materials; and protection of nearby areas and habitats.

Execution

Demolition shall be performed in accordance with the Contract Drawings and this special provision. The Contractor shall sequence work to minimize disruption to adjacent facilities and maintain site safety. All removed materials shall be handled and transported in a manner that prevents damage and environmental contamination.

MEASUREMENT AND PAYMENT

Measurement for demolition work will be made based on the lump sum for all demolition activities indicated in the Contract Drawings, including demolition existing structures, components, and appurtenances, removal and delivery of floating docks and removal/disposal of the existing ramp. Payment for demolition work will be made at the lump sum price for Demolition. This price shall include all labor, equipment, materials, transportation, environmental compliance measures, and incidentals necessary to complete the work satisfactorily.

Payment will be made under:

Pay Item	Unit
Demolition – Hatteras and Ocracoke (Silver Lake)	LS
Remove and Dispose Ramp at Ocracoke (South Dock)	LS

DREDGING

Description

The dredge work included in this project is generally described as basin maintenance dredging that involves dredging material from the existing basin and transporting the material to an upland disposal location. The maintenance dredging operations shall be performed using a bucket and barge system. A dredge box of approximately 63,550 square feet with an estimated volume of 9,110 cubic yards of material to be dredged is proposed as part of the Project. The dredged material shall be transported via barge to the designated shore-based offloading site where it will then be transferred from the barge to trucks and transported to a designated disposal area.

The basin shall be dredged to a depth of -10' MLLW within the limits defined in the Contract Drawings. The dredge depth is based on the bottom conditions as of May 29, 2024 and are subject to change based on the bottom conditions at the time of the before-dredge survey. The contractor shall remove sufficient material to provide the required depth and side slopes shown in the Contract Drawings.

Material obtained from the basin maintenance dredging shall be transported from the dredge site to the dredge material offloading site via barges and then loaded onto dump trucks that shall transport the material to a designated disposal area. The material cannot be hauled from the offloading site until the material is dry enough not to leak onto the highway.

The dredging work shall not cause disruptions or impacts to the operation of the car ferries. The contractor shall develop and submit to NCDOT and the EOR a dredging plan that demonstrates how work will be completed with no disruptions to the car ferry operation.

Dredge Plan

Dredge Capacity. The Contractor agrees to keep on the job sufficient equipment to meet the requirements of the Work. The dredge shall be in satisfactory operating condition, shall be reliable in its performance and capable of safely and efficiently performing the Work as set forth in this Special Provision and the Contract Drawings. The dredge shall be of sufficient size and capacity to complete the Work in a timely manner, meeting, or exceeding Contract Document requirements for the construction period.

Over-depth and Side Slopes. The shoaled material shall be removed from within the dredging areas to the required bottom grade as shown on the Contract Drawings but not more than the target depth of - 10 MLLW. To facilitate dredging down to the required depth, the Contractor may disturb one (1) foot below the required dredging depth provided. The Contractor shall take care to avoid permanently removing material beyond the required depth. Material taken from beyond the required depth (-10 MLLW) is not eligible for payment and excessive dredging below the permitted depth (or -10 MLLW) or beyond the limits of the pay slope plane will be considered a violation of the permits and will not be paid for.

Material removed within the limits shown in the Contract Drawings, leaving final side-slopes no flatter than 1 vertical to 3 horizontal, will be paid for, whether accomplished by dredging the

original position or “box cutting” the space below the side slope and allowing up slope materials to fall into the cut.

Channel Infilling. The Contractor is not responsible for the naturally occurring infilling or scouring of any accepted section of the basin after the Engineer has accepted it for payment. The Contractor is responsible for maintaining the material within the Offloading Site and Disposal Area and complying with all permit conditions that govern the Disposal Area.

Excavation

General. Shoaled material shall be dredged by clamshell (bucket) dredge or similar means to the depths and grades shown in the Contract Drawings. The material shall be transported via barge or scow to the Offloading Site designated by NCDOT and then transferred to trucks to be transported to the Disposal Area.

Dredge Box Excavation Limits. All excavation shall be performed within the horizontal and vertical limits shown in the Contract Drawings (the Contractor shall not be held responsible for material migrating into the channel from side slopes of the dredge template). The Contractor will be required to certify in each Daily Quality Control Report that the excavation occurred within the horizontal and vertical limits defined in the Contract Drawings. If any material is removed from below the required depth, or outside of the indicated side-slopes limits, the volume of such material will not be paid to the Contractor.

The Contractor shall pay any and all costs, fines and/or other expenses related to permit violations due to dredging outside of limits or resulting from Contractor negligence in complying with the project permits. If the Contractor does not pay any and all costs, fines and/or other expenses related to dredging outside of the limits and/or for permit violations, the Department will deduct said cost, fines, and expenses from payments due to the Contractor by the Owner, or (if applicable), the expenses may be recovered from the Contractor’s bond.

A permit violation for over-dredging shall be the Contractor’s responsibility if surveys for payment of the dredge box dredging confirm excessive material has been excavated below the permitted depth (-10 MLLW) or outside the dredge box limits as noted in the Contract Drawings. The Contractor shall not operate the excavation device below the permitted depth.

Tides. Contractor shall use measured tides for all hydrographic surveying and tidal corrections (predicted tides are not acceptable).

Uniform Excavation. To the greatest extent practicable, dredging shall be performed in a uniform and continuous manner to avoid creating multiple holes, valleys, or ridges within the dredge areas.

Environmental Compliance

Type 2 turbidity barrier or silt curtain protection is required to complete the dredging. The contractor shall prepare and submit to NCDOT a turbidity barrier control plan for review and approval. Turbidity control plan shall be in accordance with the requirements of Turbidity Control and Monitoring Special Provision. In addition, the contractor shall comply with all

conditions and requirements of State and Federal permits. NCDOT will secure the permit for dredging and placement (disposal) of material. During the life of the contract, provide and maintain environmental protective measures required by the permits. Also, environmental protective measures requires to correct conditions, such as oil spills or debris, that occur during the dredging operations, must be provided that comply with Federal, State and local regulations pertaining to water, air, and noise pollution.

Measurement and Payment

There are two pay items included in this Special Provision. The first pay item, Dredging – Base Bid- is to include the volume of material to be dredged in the area noted as Dredge Area Base Bid in the Contract Drawings.

The second pay item, Dredging Alternate 1, is to include the volume of material to be dredged in the area noted as Dredge Area Alternate 1 that is in addition to the area to be dredged in the area marked as Dredge Area Base Bid.

The dredge material to be dredged on this project will be measured by truck measurement as provided by Subarticle 230-5(B) of the Standard Specifications, as directed by the Engineer. There will be no deduction for shrinkage on this contract. Such price and payment will be full compensation for furnishing, placing, all labor, equipment, and incidentals, necessary to complete the work satisfactorily.

Payment will be made under:

Pay Item	Unit
Dredging – Base Bid	CY
Dredging Alternate 1	CY

TURBIDITY BARRIER**GENERAL****DESCRIPTION**

This section covers requirements for furnishing, installing, maintaining, and removing turbidity barriers to control and contain turbidity generated by construction activities in accordance with regulatory requirements and the Contract Drawings.

SUMMARY OF WORK

The Contractor shall provide all labor, materials, equipment, and incidentals necessary to install and maintain floating turbidity barriers around the work area for the duration of construction activities that may generate turbidity. The work includes monitoring turbidity levels, remedying visible turbidity plumes, and complying with all regulatory requirements. The Contractor is responsible for any fines levied by authorities due to non-compliance.

SUBMITTALS**Turbidity Control Plan**

1. The Contractor shall submit a Turbidity Control Plan for review that shall include:
 - a. A site plan that identifies turbidity control measures designed to enclose the entire work area during all construction phases effectively.
 - b. Detailed design and drawings and/or product sheets of the turbidity curtains to be deployed, including dimensions, composition and anchorage as required.
 - c. Aerial maps showing turbidity curtain surrounding Project Site and location of background compliance and sampling locations as required by the regulatory permits.
 - d. Action steps to be taken if a visible turbidity plume is observed leaving the site at any time.
 - e. Regulatory monitoring, reporting, and notification requirements.
 - f. Other information required by law.
2. Obtain the approval of the Turbidity Control Plan by authorities having jurisdiction.
3. Obtain the approval of the Turbidity Control Plan by Owner.
4. Submit a report of each incidence; identify any noted deficiencies and mitigative measures undertaken, such as installation of turbidity containment devices and/or repairs, revisions to, or replacement of any non-functioning turbidity containment devices, etc. submit a report to Owner and to the authorities having jurisdiction as required by the environmental permits. Indicate condition and specify maintenance or repair required and accomplished.

PRODUCTS**A. Turbidity sensors**

- a. The contractor shall supply one or more in-situ Turbidity Sensors for use in the Turbidity Monitoring Plan in accordance with regulatory requirements. The choice of sensor is subject to approval of the Owner.
- b. The Turbidity Sensor shall be capable of taking a point measurement of turbidity and be capable of being raised and lowered to sample at different depths within the water column.
- c. Data should be recorded and viewed in real-time so that monitoring of turbidity can be done in real-time.
- d. The Turbidity Sensor shall have a range of 1 to 500 NTU with an accuracy of 1 NTU.
- e. If the Turbidity Sensor(s) is of a type that needs to be calibrated before deployment, the calibration should be performed, and the calibration information submitted to the owner before deployment.

B. Floating Turbidity Curtains

- a. The contractor shall design, supply, install and maintain a minimum Type II floating turbidity curtain, as depicted in the Contract Drawings and in accordance with regulatory permit requirements. Any supplemental reinforcement or provisions beyond that of a conventional Type II curtain, shall be assessed by the contractor and incorporated if or as necessary.
- b. The turbidity curtains shall surround, at a minimum, the immediate work area and shall contain all turbidity generated during demolition, pile installation, etc.
- c. The turbidity curtains and anchorages shall be able to withstand wave and current action associated with both environmental conditions and vessels operating proximate to the enclosed work area.
- d. The Contractor shall, at no expense to the Owner, repair or replace turbidity curtains that become damaged during the course of the work. The Contractor shall, at no expense to the Owner, revise the turbidity barrier design, at the direction of the Engineer, if repeated damage occurs throughout the course of the work.

EXECUTION**Background Turbidity Level Monitoring**

- A. Turbidity levels shall be monitored at the site for a period of one business week (i.e., five (5) consecutive business days) prior to the commencement of any work that has the potential to, or does disturb the harbor mudline to establish a baseline reading.
- B. Background turbidity levels shall be recorded twice per day during work hours, a minimum of four hours apart.
- C. Contractor shall note vessel arrivals and departures on turbidity monitoring log to establish baseline readings during vessel transit adjacent to the site. Baseline readings

shall be taken when a vessel has not transited within 300 feet of the area within 4 hours prior.

Compliance Turbidity Level Monitoring

- A. Compliance monitoring shall be performed in accordance with regulatory requirements.

MEASUREMENT AND PAYMENT

Measurement and payment for turbidity barrier control plan and monitoring work will be made Lump Sum. This price shall include all labor, materials and incidentals necessary to develop and implement the Turbidity Control Plan including the turbidity monitoring and obtaining approval of authorities with jurisdiction.

Measurement and payment for turbidity barrier work will be made per square yard price for Turbidity Barrier. This price shall include all labor, materials, equipment, installation, maintenance, removal, and incidentals necessary to complete the work satisfactorily.

Payment will be made under:

Pay Item	Unit
Turbidity Control Plan and Monitoring	LS
Turbidity Barrier (Dredging Base Bid)	SY
Turbidity Barrier (Dredging Alt. 1)	SY
Turbidity Barrier (Basin Work)	SY

CONCRETE WASHOUT:

(10-22-15)(Rev. 4-15-25)

Description

Concrete washouts are impermeable enclosures, above or below grade, to contain concrete wastewater and associated concrete mix from cleaning of ready-mix trucks, drums, pumps, tools or other equipment. Concrete washouts must collect and retain all the concrete washout water and solids, so that this material does not migrate to surface waters or into the ground water. These enclosures are not intended for concrete waste not associated with washout operations.

Acceptable concrete washouts may include constructed earthen structures, above or below ground, or commercially available devices designed specifically to capture concrete wash water.

Materials

Refer to Division 10 of the *Standard Specifications*.

Item	Section
Temporary Silt Fence	1605

Safety Fence shall meet the specifications as provided elsewhere in this contract.

Geomembrane basin liner shall consist of a minimum 10 mil thick polypropylene or polyethylene geomembrane.

Construction Methods

Build an enclosed earthen berm or excavate to form an enclosure in accordance with the details and as directed by the Engineer near the project entrance(s) or at location(s) of concrete operations. Structures shall be constructed a minimum of 50 feet from drainage conveyances or jurisdictional streams or wetlands. Alternate structure designs or plans for management of concrete washout may be submitted for review and approval by the Engineer. Include in the alternate plan the method used to retain, treat and dispose of the concrete washout wastewater generated within the project limits and in accordance with the minimum setback requirements.

Install temporary silt fence around the perimeter of the structure enclosure in accordance with the details and as directed by the Engineer if the structure is not located in an area where existing erosion and sedimentation control devices are capable of containing stormwater runoff.

Post a sign with the words "Concrete Washout" in close proximity of the concrete washout area, so it is clearly visible to site personnel. Install safety fence as directed by the Engineer for visibility to construction traffic.

Install prefabricated concrete washouts, designed specifically to capture concrete wash water, at locations of additional concrete pouring operations. Acceptable systems may include geotextile lined containers, vinyl or plastic containers or roll-off containers, with or without filter bags with

a minimum functional holding capacity of 36 cubic feet (1.33 cubic yards). Submit prefabricated concrete washout system for approval by the Engineer prior to installation. Place prefabricated concrete washout devices to a minimum 50 foot setback from drainage conveyances and jurisdictional streams and wetlands. If the minimum setback cannot be achieved, provide secondary containment to prevent accidental release of wastewater from reaching drainage conveyances or streams.

Prefabricated concrete washouts must be clearly and visibly labeled as such, either by the manufacturer on the product itself, or by a sign with the words "Concrete Washout" in close proximity of the concrete washout area so it is clearly visible to site personnel.

Maintenance and Removal

Maintain the concrete washout structure(s) to provide adequate holding capacity plus a minimum freeboard of 12 inches. Remove and dispose of hardened concrete and return the structure to a functional condition after reaching 75% capacity. Inspect concrete washout structures for damage to liner or structure to maintain functionality.

Maintain prefabricated concrete washout systems per manufacturer's recommendations. Inspect concrete washout structures for damage to linings or structure and repair or replace as necessary.

Remove the concrete washout structures and sign upon project completion. Grade the area to match the existing topography and permanently seed and mulch area. Dispose of prefabricated concrete washout structures according to state or local waste regulations.

Measurement and Payment

Concrete Washout Structure will be measured and paid per each enclosure installed in accordance with the details in the plans. If alternate plans or details are approved, those structures will also be paid for per each approved and installed structure. Such price and payment will be full compensation for all work including, but not limited to, furnishing all materials, labor, equipment, signage, slurry solidification and incidentals necessary to construct, maintain and remove *Concrete Washout Structure* and dispose of residual concrete washout wastewater and concrete solids.

Prefabricated Concrete Washout will be measured and paid per each system installed in accordance with the manufacturer's recommendations. Such price and payment will be full compensation for all work including, but not limited to, furnishing all materials, labor, equipment, signage, slurry solidification and incidentals necessary to install, maintain and remove *Prefabricated Concrete Washout*, and dispose of residual concrete washout wastewater and concrete solids.

Temporary Silt Fence will be measured and paid for in accordance with Article 1605-5 of the *Standard Specifications*.

Safety Fence shall be measured and paid for as provided elsewhere in this contract.

No measurement will be made for over excavation or stockpiling or other items necessary to complete this work.

Payment will be made under:

Pay Item	Pay Unit
Concrete Washout Structure	Each
Prefabricated Concrete Washout	Each

STEEL FENDER PILES**GENERAL****SUMMARY**

The work of this Special Provision consists of furnishing all plant, equipment, labor and materials and performing all operations in connection with fabricating, coating, transporting, handling, storing, and installing steel pipe piles for the fender systems in accordance with the Contract Drawings using vibratory or impact driving methods. It also includes the splicing and cut-off requirements in accordance with this Special Provision, the referenced standards, and the applicable provisions of pertinent codes. Piling construction work includes:

Supply and install epoxy coated steel pipe piles with white fiberglass bird caps as berthing and anchoring elements for the vessel.

APPLICABLE PUBLICATIONS

The publications listed below form a part of this Special Provision to the extent referenced. The publications are referred to in the text by the basic designation only.

ASTM

A36 Structural Steel

A252 Welded and Seamless Steel Pipe Piles

AWS

“Structural Welding Code – Steel,” AWS D1.1

OSHA

1926.603 Pile driving equipment

1926.605 Marine Operations and Equipment

NCDOT (2024)

Section 450 – Structures Foundations; B. Piling.

RELATED DOCUMENTS

Contract Drawings

PROJECT SITE CONDITIONS

Pile Driving: Use of an impact hammer may be necessary to achieve the pile tip elevations as defined in the Contract Drawings. The Contractor shall mobilize all required equipment for pile

driving work including a vibratory hammer, impact hammer, and any regulatory permit mitigation measures required in the permits.

Sequencing: Scheduling of pile installation shall be conducted with consideration for hard driving conditions.

QUALITY ASSURANCE

The Contractor shall facilitate and assist the Owner in keeping an independent complete record of each pile driven, noting the rate, type, time, location and driving record with blow counts (impact driving) or inches per minute for every foot or fraction of a foot driven (vibratory driving), and energy rating and fuel setting of the hammer. Facilitation and assistance shall include, but not be limited to providing access to the pile driving site, providing visual access to the driving site, and access to Contractor driving records. Data shall be recorded on a "Pile Driving Record Sheet."

Records: The Contractor shall keep a complete and accurate record of each pile driven in accordance with Part 3 of this Section

Provide skilled workman at all times who shall be experienced and familiar with construction of pile supported marine structures. Supervisory personnel shall have a minimum of five (5) years of experience with the work performed in this contract.

Welding

Weld procedure and quality: Welding shall be done in accordance with AWS D1.1, including procedures for repair of defective welds.

Weld inspections: All shop and field welds shall be visually inspected by an AWS Certified Welding Inspector through a Contractor provided independent testing company. Weld inspection reports shall be submitted to the Owner. Non-conforming welds shall be repaired in accordance with AWS D1.1 and retested. The results of both the failed and passing tests shall be submitted to the Owner for all repairs made. The test reports will clearly indicate the component with the failing test, and the location of the repair.

Qualification of Welders and Welding Operators. Welders and welding operators shall be qualified for shop and field welding.

PRODUCT HANDLING

Protection:

Product handling procedures shall be anticipated and accounted for in the Contractor-submitted work plan.

Use all means necessary to protect the materials before, during and after installation, and to protect the installed work and materials of all other trades.

Piles in storage or temporary stockpile shall be supported in such a manner that will not impair the alignment of the piles.

Piles shall be handled and transported only with acceptable equipment and by qualified personnel.

Replacements: In the event of damage, immediately notify the Owner and make all repairs and replacements necessary to comply with the Special Provisions at no additional cost to the Owner.

Dents, gouges, or arc strikes in the piling greater than 1/8-inch shall be removed or repaired as required under AWS. Pile deficiencies greater than 1/8-inch will be rejected, and the pile shall be removed from the site and replaced by the Contractor at no additional cost to the Owner.

SUBMITTALS

Action Submittals

Mill test reports: Certified copies of mill test reports for structural steel. Piling and appurtenant materials shall be tested and certified by the Manufacturer to meet the specified chemical, mechanical, and section property requirements to delivery to the site

Material certificates: Submit for each shipment of steel piles certificates identified with specific lots prior to installing piling. Identification data should include piling type, dimensions, chemical composition, mechanical properties, section properties, heat number, and mill identification mark.

Weld inspection report(s).

Piling cap data: manufacturer or fabricator of cap; name and contact information.

Certificates of treatment or quality of materials from pile manufacturer in accordance with the Special Provision.

Shop drawings: Shop drawings for steel piles, pile assemblies, and any associated weldments/hardware.

Product data for pile/bird caps.

Weld certificates: Certify welders employed in the work with AWS qualifications.

Pile driving work plan including falsework, templates and bracing.

List of equipment intended to be utilized in the driving, noting hammer sizes, lead lengths and crane capacities.

Vibratory hammer: The following vibratory hammer information shall be provided:

Manufacturer

Model

Type

Serial no.

Rated energy

Modifications

Impact hammer: The following hammer information shall be submitted:

Manufacturer

Model

Type

Serial no.

Rated energy/length of stroke

Modifications

Capblock (hammer cushion): The following capblock information shall be provided:

Material

Thickness

Area

Modulus of elasticity

Coefficient of restitution

Pile cap: The weight of the helmet, bonnet, anvil block, and drive head shall be provided.

Pile cushion: The following pile cushion information shall be provided:

Material

Thickness

Area

Modulus of elasticity

Coefficient of restitution

Pile: The following pile information shall be provided:

Type

Length (in feet)

Weight/foot

Wall thickness

Cross-sectional area

Tip treatment

Power plant and leads: a description of the power plant and leads shall be provided.

Wave equation analysis results and driving recommendations: Required for all impact pile driving. Submit in accordance with the requirements of this Special Provision.

Pile placement plan: submit pile placement plan for review. The pile placement plan shall include a narrative and illustrations for the proposed installation sequence, driving procedures, methods for controlling the location and alignment of piles, and driving template design and configuration and top of pile elevation prior to cutoff .

Pile driving records in accordance with this Special Provision.

Inspection records: records verifying fabrication/erection, welding inspection, and nondestructive test (NDT) conformance.

PRODUCTS

GENERAL

All pipe piling shall be new, round pipe and have a minimum outside diameter and wall thickness as indicated on the Contract Drawings. Steel pipe piles shall straight seam ERW welded or seamless pipe and shall conform to the requirements of ASTM A252, Grade 3 (fy = 50 ksi min.), or stronger with chemistry suitable for welding. Spiral weld pile shall not be used.

Marine Coating: Steel pipe piles to be coated shall be prepared in accordance with requirements of this Special Provision.

Welding consumables shall conform to the requirements of the applicable provisions of A.W.S. D1.1, Structural Welding Code and to the appropriate Building Code.

Minimum Cutoff Supply: The length of the pile shall be calculated based on the top and tip elevation, and the cut-off length. The Contractor is to determine the required supply cut-off length, which shall be a minimum of three feet.

COATINGS

The following is a list of coating manufacturers and products that could be used. An equal or similar coating system may be selected by the Contractor. If so, the Contractor shall submit all technical information regarding the proposed system for approval to the Owner. All products used in the coating system are to be provided by the same manufacturer. The coating system shall use the coatings from one supplier only and all coating materials shall be compatible. The coating used shall be applicable for the conditions of the project. Select the coating material to suit the purpose and site conditions of the structural element and location of the coating application, as specified in this section. Materials for coating piles and miscellaneous steel fabrications as specified in the Contract Drawings shall conform to the following (or similar as approved by the Owner. Paint color shall be highly visible, to be selected by the Owner).

Epoxy Coating System Applied in Shop Option 1 (Carboline):

Primer: Carbozinc 11 Series (2-3 mils DFT)

Tiecoat: Carboguard 890 (4-6 mils DFT per coat, two coats)

Top coat: Carbothane 134 Series (2-3 mils DFT)

Epoxy Coating System Applied in Shop Option 2 (Tnemec):

Primer: Series 90-98 Tnemec-Zinc (2-3.5 mils DFT)

Tiecoat: Series 161 Tnemec-Fascure (4-6 mils DFT per coat, two coats)

Top coat: Series 740UVX (2.5-5 mils DFT)

FIBERGLASS PILING CAPS (BIRD CAPS)

Piling caps shall be a heavy duty white conical cap with a cylindrical sleeve to fit over the top of all installed pile sleeves.

The pile cap shall be fiberglass, as manufactured by Cheyanne Manufacturing, Inc. (1-800-424-7575) or approved equivalent. The final outer surface shall be smooth and without apparent waves, wrinkles, or other surface defects.

The cone taper shall be between 40 and 60 degrees. The wall thickness of all surfaces of the cap shall be 1/8 inch minimum.

The inside diameter of the cap shall be sized to fit the pile outer diameter with enough clearance to allow adhesive bonding to the pile.

Adhesive: The piling caps shall be bonded to the pile (as applicable) with an approved marine grade adhesive/sealant compatible with the steel pile and the fiberglass piling cap that is suitable for use in wet environments such as 3M Marine 5200. All adhesive products shall be approved by the Owner.

Stainless Steel Screws: All piling caps are to be secured to the pile with a minimum of four self-tapping stainless screws per cap. Self-tapping screws shall have an unslotted drive hex head and shall be 1/4 inches in diameter.

PILE SHOES

Piles are designed to be driven with an open end inside flanged driving shoe. Pile driving shoes and their associated weld shall be shown on the shop drawings and the manufacturer's cut sheet for the pile driving shoe provided.

EXECUTION

GENERAL

All pile quantities, locations and geometry shall be in accordance with the details and pile schedule in the Contract Drawings.

All pile fabrication installation operations shall be in conformance with OSHA regulations including 1926.603 Pile Driving Equipment and 1926.605 Marine Operations and Equipment.

Preparation: Visually inspect piles when delivered and when in the leads immediately before driving for defects or damage. Repair damages or defects in pile or pile coatings as specified.

Handling. Handle piles so as to protect the piles, pile coatings, and pile markings. Lift steel piling by the use of appropriate rigging as required to prohibit permanent deformations.

Temporary construction: The Contractor shall protect all exposed partially complete work against damage. Any structural component damaged during construction shall be replaced by the Contractor at no cost to the Owner.

Protection of existing structures: When the Contract Drawings require steel pile driving/construction operations in close proximity to existing structures or newly constructed structures, take all reasonable precautions to prevent damage to such structures. The requirements described herein apply to all types of structures that may be adversely affected by construction operations due to vibrations, ground loss, or ground heave. Do not commence work at points where the construction operations are adjacent to utility facilities or other property, until making arrangements with the utility facilities to protect against damage that might result in expense, loss, disruption of service, or other undue inconvenience to the public or to the Owner. The Contractor is solely and directly responsible to the Owner and operators of such properties for all damages, injuries, expenses, losses, inconveniences, or delays caused by the Contractor's operations. Notify the Owner of any movements detected and immediately take any remedial measures required to prevent damage to the existing structures.

Field coating repair: Repair all coated surfaces removed or damaged during welding, shipping, or erection in accordance with manufacturer's recommendations. Repair material shall be same as coating material. Application shall be in accordance with manufacturer's recommendations. Minimum applied thickness shall be the minimum original coating thickness required by this specification for the component, or 4 mils, whichever is greater. Any coating repair conducted by the Contractor, Subcontractor, or supplier which occurs onsite will be subject to approval by the Owner. The Contractor shall notify the Owner when any repair is being performed and provide access to adequately review the repair area before and after the repair.

Pile damage: The Contractor shall remove and replace, at no additional cost to the Owner, any pile that is damaged as determined by the Owner.

FABRICATION

Pile fabrication and markings: Fabricate pile in accordance with ASTM 252. Mark piling with lines of high visibility paint or ink on one-foot intervals from bottom to top. The length from tip shall be marked with the length in five-foot increments, and one-foot increments marked with a line. All markings shall be clearly visible from all sides and legible to the naked eye at a distance of 75 feet. At all times during driving, the marked portion of the pile shall remain visible to the Owner. Paint markings on galvanized pile sections shall be of material approved by the galvanizing manufacturer that is not detrimental to the pile or the pile coating.

Splices

All splices are to be shown on the shop drawings and designated as being either shop splices or field splices.

Shop splices: piles that have a total length of 40 feet or less shall be supplied full length with no splices. Piles that are longer than 40 feet and less than 80 feet shall have a maximum of one splice and shall be installed with the longer section on top. Splices shall be shop welded full penetration groove welds with a backing ring in conformance with AWS D1.1 unless otherwise approved by the Owner. Shop splices shall be inspected in accordance with the requirements of this Special Provision. In no case shall a spliced portion of a pile be less than 10 feet in length.

Field splices: the Contractor shall not mobilize with the intent of performing field splices without explicit written permission of the Owner.

PILE DRIVING

Permit requirements: Pile installation shall also be conducted in accordance with the Owner provided regulatory permits including requirements for environmental protection mitigation (which may include work hour, sound, sediment control restrictions).

All piles installation shall be conducted with the Owner's Representative present. The Contractor shall assist the Owner in monitoring the pile driving.

Records: The Contractor shall keep a complete and accurate record of each pile driven. Indicate pile location, plumbness and direction of lean, diameter, original length, mudline elevation, tip elevation, top elevation, cutoff elevation, penetration in blows per foot for entire impact-hammer driven length, penetration in inches per minute for entire vibratory-hammer driven length, penetration for the pile, total driving time in minutes and seconds for each pile, and hammer data including rate of operation, model, and size, unusual pile behavior, or circumstances experienced during driving such as re-driving, heaving, weaving, obstructions and unanticipated interruption. Submit copy of "pile driving record tests" including Project Record Drawings to the Owner. Submit complete record of all the installed piles to the Owner. The pile records shall be current, and the as-built locations shall be noted on the Project Record Drawings.

Installation templates: steel piles shall be installed using location templates as needed to achieve the specified location tolerances.

Pile driving shall occur only during daylight hours.

All piling shall remain unarmored. No rock riprap or other unauthorized material shall be used as piling protection.

Jetting methods may not be used for pile installation.

Pile driving equipment: Sufficiently sized vibratory or impact hammers shall be used to install steel piles. Use a pile hammer having a delivered force or energy suitable for the total weight of the pile and the character of subsurface material to be encountered. Operate hammer at the

rate(s) recommended by the manufacturer throughout the entire period. All pile installation shall be attempted first with a vibratory hammer.

Premature refusal: If the piles meet refusal as determined by the geotechnical engineer and the Owner prior to reaching their specified tip elevation while using a vibratory hammer, the Contractor shall use an impact hammer to install the piles the remainder of the distance needed to achieve the specified pile depth. Sufficiently sized vibratory hammer shall be used to install steel piles. Selection of the hammer necessary to drive the piles to the required tip elevation is the responsibility of the Contractor. The selected hammer shall be such that it does not damage the piles as determined by a wave equation analysis. The Contractor shall repair damage to piling caused by use of pile hammer with excess delivered force or energy at no additional cost to the Owner.

Wave equation analysis results and driving recommendations: Submit the pile and complete driving equipment data form to the Owner and a wave equation report of the wave equation results sealed by a Licensed Professional Engineer for specific equipment to be used for this work. This report shall include all input parameters assumed in the analysis and complete results of the analysis including items required in this and other sections of this Special Provision. The wave equation analysis shall be used to assess the ability of the proposed driving system to install the pile to the required capacity and desired penetration depth within the allowable driving stresses. The wave equation analysis shall be performed for all tip elevations. The limiting penetration rates and ultimate pile capacities shall be submitted in both tabular and graphical formats and shall be in a manner that can be readily used by field personnel. The results of the bearing graph analysis shall be used to determine limiting penetration rates (blows/inch) such that axial stresses in the piles do not exceed 90 percent of the pile yield stress. The bearing graph analysis shall provide ultimate pile capacities versus blow counts for each hammer being used.

Driving tolerances: Falsework and bracing must be of such a nature as to offer complete assurance of plumbness and alignment. Crooked alignment to avoid interference from obstructions will not be permitted; and such obstructions, when encountered, must be removed before proceeding with driving operations.

Drive piles within the following maximum tolerances. Piles that fail to meet minimum pile tolerance requirement shall be rejected and shall be removed and re-driven by the Contractor at no additional cost to the Owner. If re-driving is attempted and failed, the Contractor shall contact the Owner for guidance. The Contractor shall not be compensated for any delays associated with piles being driven out-of-tolerance. Additional work required due to improper location or installation is the Contractor's responsibility. Lateral pulling of pile heads to proper location will not be allowed under any circumstances.

Location: Pile top within 2 inches of design location shown.

Plumbness and Deviation from Batter: Plumbness within 0.5 percent (1/4 inch in 4 feet) of true vertical. However, in no case shall an un-plumb pile result in a pile location that is more than 2 inches away from those shown in the Contract Drawings.

Top of Pile and Pile Tip: The final top of pile and pile tip elevations are indicated on the Contract Drawings. Should a pile be determined to have reached refusal by the Owner during installation the Contractor shall cut-off the top of the pile at the required elevation (+/- 1 inch tolerance) following completion of restrikes and with the Owner's approval.

The Owner reserves the option, based on the results of pile driving, to modify the tip penetration requirements. Pile refusal criteria shall be developed by the geotechnical engineer in coordination with the Owner's representative. The Contractor shall discuss with the Owner pile refusal criteria prior to initiating any pile driving activities, and any issues and/or requests to define any pile as having reached refusal shall be immediately notified to the owner's representative for review and discussion, in order to ensure that piles achieve required pile capacities.

Achieving minimum tip elevation: Once pile driving has started, each pile shall be driven continuously until the required tip elevation is achieved with exception for equipment break down and change of pile hammer.

Interruptions to driving. When driving must be interrupted, the continued driving after such intermission shall be performed for at least one minute before the average penetration per blow is measured for determining whether the required resistance has been reached.

Obstructions: If obstructions are encountered that result in sudden, unexpected change in penetration resistance and deviation from specified tolerances, the Contractor may be required to perform one or all of the following. If damage occurs to a pile due to the Contractor attempting to drive through obstacles, the damaged pile will be replaced by Contractor at no additional cost to the Owner. The Contractor shall receive Owner approval prior to proceeding with any of the following activities:

Removal of obstruction.

Extraction, repositioning, and re-driving of piles.

Clearing of an obstruction by driving HP piles.

Drill through control pile to remove soil plugging the tip.

Cut-off: The top of driven piles shall be cut-off to a flat surface at the elevation shown in the Contract Drawings. Cutoff shall include all portions of the pile top damaged during driving. Use tools that will not damage area below cut surface. The Contractor shall be responsible for removal and off-site disposal of all cut-off pile pieces. No additional payment shall be made for removal and disposal the pile cut-off. With permission of the Owner, piles may be driven past tip elevations to avoid excessive cut-off lengths at no additional cost at the Contractor's risk.

PILING FIBERGLASS CAPS

Piling bird caps. The piling cap shall be installed with a contractor-selected adhesive. The adhesive/sealant shall be applied around the full circumference of the inside of the cap and the outside of the pile sleeve. Install the cap in a manner assuring a uniform bonding surface around

the interface between the pile sleeve and cap. Piling cap shall be additionally secured to the pile sleeve with four self-tapping stainless screws. Mask the outside surface of the pile cap and pile sleeve before application of the adhesive/sealant and remove after application in a manner that avoids deposition of excess material on the exposed surfaces. Do not allow any materials to enter the water.

SHOP SURFACE PREPARATION

Painting operations shall occur indoors in a controlled shop environment.

Paint products shall be used in full conformance with the manufacturer's recommendations.

Do not apply coatings in snow, rain, fog, or mist; when relative humidity exceeds 85% at temperatures less than 5° F above the dew point; or to damp or wet surfaces.

Steps for surface preparation prior to painting shall be as follows unless otherwise recommended by paint manufacturer:

SSPC SP-1 Solvent Cleaning

SSPC SP-10 Commercial Blast Cleaning with a minimum angular profile of 1.5 mils.

Prior to painting verify that surfaces to be coated are dry, clean and free of dust, dirt, oil, wax, grease or other contaminants.

Field touch-up coating application

General: Coordinate the coating repair work with the work by others. Field coating on items as needed to repair any transportation or installation damages according to the following instructions. In addition, repair observed coating holidays and thin areas. Provide surface preparation in accordance with SSPC SP 11. Where a field applied coating is used that is different from the shop applied coating, mask off the area to be coated so that a neat appearance can be obtained. When practical, and when not in conflict with the manufacturer's instructions, apply field repairs using the same coating system applied in the shop. Apply all field coatings with a brush or roller. Spray painting shall not be allowed in the field. Apply coatings in the field to the thicknesses required for the selected coating.

Field Application of Coating: Field welded joints and field repairs to shop painted coatings shall receive field touch up coating.

Where a field-applied coating is used which is different than the shop applied coating, the area to be coated shall be masked off so that a neat appearance can be obtained. When practicable, and when not in conflict with the following specifications, touch-up shall be applied with the same paint system applied in the shop.

The proposed field coating product shall be compatible with the proposed shop coating product.

All field coatings shall match the color of the shop applied coating system. All coatings applied in the field shall be applied using a brush or roller. Spray paint is not allowed in the field.

PILE ACCEPTANCE CRITERIA

The Contractor shall submit the as-built pile geometries stamped by a licensed surveyor immediately after driving. The as-built pile geometries shall include horizontal coordinates at a stated elevation, and plumbness (direction of lean, extent of lean defined in inches over 4 feet).

The Contractor shall not demobilize pile driving equipment prior to Owner acceptance of pile as-built pile drawings.

Piles may be rejected (not accepted) by the Owner if any one of the following conditions exist:

Piles have not been installed to the minimum tip elevation and minimum penetration resistance as determined by the Owner.

Piles are not installed within the specified tolerances for location, plumbness, or cut-off elevation.

MEASUREMENT AND PAYMENT

Payment will be made under:

Pay Item	Unit
24" Steel Fender Pipe Piles	LF

TIMBER AND LUMBER:**General**

Description

This section covers the supply and installation of timber piles for the construction of the wood dock.

References

The publications listed below form part of this Special Provision to the extent referenced. The publications are referred to in the text by the basic designation only.

American Society for Testing and Materials (ASTM)

ASTM A 123-02 Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

ASTM A 153-01b Zinc Coating (Hot-Dip) on Iron and Steel Hardware

ASTM D 25-Standard Specification for Round Timber Piles

ASTM D 1143-94 Piles Under Static Axial Compressive Load

American Wood-Preservers' Association (AWPA)

AWPA M2 – Standard for Inspection of Treated Wood Products

AWPA M4 – Standard for the Care of Preservative-Treated Wood Products

AWPA M6 – Brands Used on Forest Products

AWPA U1 – Use Category System: User Specification for Treated Wood

Submittals

Submit the following .

Product Data

- Piles and pile supplier name
- Hammer
- Driving equipment
- Driving helmet

Certificates

- MSDS and CIS

Quality assurance

Timber Piles Preservative Treatment

The Contractor shall provide inspection reports from an inspection agency listed on the Department's pre-approved producer/supplier list. The inspection agency shall perform inspections in accordance with AWPA Standard M2. Each item shall bear the brand, hammer mark, ink stamp, or tag of an ALSC-accredited agency indicating it has been inspected. Inspect all preservative-treated wood visually to ensure there are no excessive residual materials or

preservative deposits. Material shall be clean and dry or it will be rejected because of environmental concerns.

MSDS and CIS

Provide Materials and Safety Data Sheets (MSDS) and Consumer Information Sheets (CIS) associated with timber pile preservative treatment. Contractor shall comply with all safety precautions indicated on MSDS and CIS.

Delivery, Storage, and handling

Store and handle piles in accordance with AWWA M4. Comply with paragraph entitled "MSDS and CIS." Timber piles should not be stored in direct contact with the ground or surface water.

PRODUCTS

Timber piles

Provide treated southern pine timber piles meeting the requirements of Section 1082 as modified by Special Provision SP10 R82. All timber piles shall be southern pine graded in accordance with the current SPIB grading rules and shall conform to Grade No. 1 Dense or Select Structural (Sel Str.). Each pile shall bear the grade mark of an ALSC-accredited agency. Preservative treatment shall comply with AASHTO M133 and AWWA U1 for the applicable Use Category, and each treated pile shall bear the quality mark of an ALSC-accredited inspection agency in accordance with AWWA M6.

Provide Type 4 Certified Test Reports and Type 6 Supplier Certifications in accordance with Article 106-3, including documentation of any chain-of-custody changes from the mill to the Department.

Timber piles shall be kiln dried to MC19 or less, shall be supplied in one piece without splices, and shall have an S4S surface texture.

Preservative treatment: Treat piles in accordance with AASHTO M133 and AWWA U1 for the applicable Use Category. Minimum preservative retention shall meet the requirements of AWWA U1 for marine piling.

Timber piles shall be coated with 21-Poly Vinyl Coatings system (Northstar Vinyl Products LLC, 1-800- 568-6702). Piles shall be coated on the upper ½ length of the pile. 21-Poly coating system shall be provided in accordance with the following properties:

Nominal mil thickness 35-50 mil
 Elongation @ 25deg/77degF . .585% +/-50
 Tensile Strength 3000psl +/-100
 Tear Resistance480 +/-50PLI
 Hardness90 +/- Shore A
 Abrasion Resistance210mg/1000rev/H-18 wheel

Hardware

Bolts with necessary nuts and washers, timber connectors, drift pins, dowels, nails, screws, spikes, and other fastenings. Bolts and nuts shall conform to ASTM A 307. Washers shall be provided for both the bolt head and nut unless otherwise specified. Provide cast-iron ogee, malleable iron washers, or plate or cut washers where indicated. Provide bolts with washers under nut and head. Provide timber connectors and other metal fastenings of type and size shown. Hot-dip galvanize all hardware and fasteners.

Zinc-Coating: Galvanize steel specified or indicated by the hot-dip process in accordance with ASTM A 123 or ASTM A 153, as applicable.

Provide the size, type, material and finish as specified and as indicated on the Drawings and as recommended by applicable standards and building codes, complying with Federal specifications for nails, screws, bolts, nuts, washers and anchoring devices.

Pile shoes

Steel boot or welded-plate point shoe especially fabricated for pile driving. Shoes shall be the product of a manufacturer regularly engaged in the manufacture of pile fittings. Provide size to fit pile tip. Fabricate boot type of 3/16-inch carbon steel fully welded, with at least three straps, each with three 3/16-nail holes. Fabricate welded-plate point type of 3/16 inch or 1/4 inch steel plates, fully welded and sized to adequately cover full pointed area of pile; provide each plate with one 3/16 inch or one 1/4 inch nail hole. Provide on the point of each timber pile as required to protect the pile tip during driving through hard soils.

EXECUTION

Installation

Driving Piles

Piles shall be driven vertical (plumb) using a template for alignment along the positions specified on the drawings. Operate hammer at manufacturer's rated speed, and drive pile without interruption to the indicated tip elevation. Drive all piles with same hammer, cushion, or cap block, and using the same operating conditions. If, in driving, it is found that a pile cannot be driven to the specified tip elevation, notify the Engineer, who will determine the corrective procedure to be followed. Inspect piles when delivered and when in the leads immediately before driving. Secure piles in their proper alignment and cut piles at cutoff grade with pneumatic tools by sawing or other approved method. Pile heads at cutoff shall be sound.

Tolerances in Driving Timber Piles

The top of the timber pile shall be within 1 inch of the location elevation indicated on the Contract Drawings. Manipulation of piles shall not occur. A horizontal variation of not more than 0.25 inch per foot of pile length from the vertical for timber piles is allowed. Inspect piles for heave. Re-drive heaved piles to the required tip elevation. Remove and replace with new piles those damaged, misplaced, driven below the design cutoff, or driven out of alignment, or provide additional piles, driven as directed.

Records

Keep a complete and accurate record of each pile driven. Indicate pile location, deviations from design location, diameter, original length, mudline elevation, tip elevation, cutoff elevation, penetration in blows per foot for the last 10 feet for job piles, hammer data including rate of operation, make, and size, and unusual pile behavior or circumstances experienced during driving such as re-driving, heaving, weaving, obstructions, and unanticipated interruptions.

Survey Data

After driving all piles is complete, provide the Owner with an as-driven survey showing actual location and top elevation of each pile. The Contractor shall not proceed with the work until the Owner has reviewed the survey and verified the safe load for the pile driven. A survey shall be presented in such form that it gives deviation from plan location in two perpendicular directions and elevations of each pile to nearest half inch.

Framing Timber Piles

Treated piles shall not be cut to permit fitting of other structural elements unless otherwise specified by the Engineer or shown on the Contract Drawings. Counter bore holes for bolts where indicated for countersinking bolt heads and washers. After installation of bolts, fill counter bored holes with an approved bituminous material. Drill holes for through bolts 1/16 inch larger than diameter of bolt shank. Timber piles shall have tops beveled outboard.

Pile Driving Equipment

Select and use a pile hammer of sufficient weight and energy to install the specified pile without damage into the soil. Place driving helmet, or cap and cushion block combination capable of protecting the head of the pile between top of pile and the ram to prevent impact damage to pile. If the block is damaged, split, highly compressed, charred or burned, or has become spongy or deteriorated, replace with a new block. The helmet of the block shall uniformly transmit energy to the pile with minimum loss of energy.

Pile hammers shall be air, steam, or diesel powered, and of an approved type with a capacity at least equal to the hammer recommended by the manufacturer for the total weight of pile and character of subsurface material to be encountered.

Driving Cap and Cushion Block: A driving cap shall be used and be capable of protecting the pile heads, minimizing energy absorption, and transmitting hammer energy uniformly and consistently to the piles. The driving cap shall fit snugly on the top of the pile and shall employ a cushion block to prevent impact damages to the pile.

Damaged Piles

Driving of piles shall not subject them to damage. Piles which are damaged, split, broomed, or broken for any reason, or by improper driving so as to impair them for the purpose intended shall be removed and replaced; a second pile shall be driven in its place at no additional expense to the

Owner. Minor damaged areas shall be treated with the same preservative used to treat the pile or in accordance with AWP A M4.

Fastening

Bolts and fasteners shall conform to the requirements specified in this Special Provision for hardware. Use washers of the corresponding size and type under bolt heads and nuts that would otherwise come in contact with wood.

Piling Protection

In accordance with AWP A M4, immediately after pile tops are cut off, protect pile with several heavy applications of the same preservative used to treat the pile or post, or else copper naphthenate solutions containing a minimum of 2 percent copper metal may be used with treated products. Seal ends with a heavy application of coal-tar pitch or other appropriate sealer.

Protection of piles

Square the heads and tips of piles to the driving axis. Laterally support piles during driving, but do not unduly restrain piles from rotation in the leads. Swinging leads will not be permitted. Where pile orientation is essential, take precautionary measures to maintain the orientation during driving. Handle, protect, and field treat piles in accordance with AWP A M4.

MEASUREMENT AND PAYMENT

Payment will be made under:

Pay Item	Unit
Treated Timber Piles	LF

WOOD DOCK**GENERAL**

DESCRIPTION

This special provision covers the supply and installation of timberwork, fasteners, composite decking, and miscellaneous metals for the wood dock.

Related work specified elsewhere:

Miscellaneous Metals

Treated Timber Piles

REFERENCES

The publications listed below form a part of this special provision to the extent referenced. The publications are referred to in the text by the basic designation only.

American Society for Testing and Materials (ASTM)

ASTM A 123-02 Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

ASTM A 153-01b Zinc Coating (Hot-Dip) on Iron and Steel Hardware

ASTM A307-21 Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60,000 PSI Tensile Strength

American Wood-Preservers' Association (AWPA)

AWPA M2 – Standard for Inspection of Treated Wood Products

AWPA M4 – Standard for the Care of Preservative-Treated Wood Products

AWPA M6 – Brands Used on Forest Products

AWPA U1 – Use Category System: User Specification for Treated Wood

Military Specifications (MIL):

MIL-P-21035 (Rev. B) Paint, High Zinc Dust Content, Galvanizing Repair

SUBMITTALS

Shop Drawings

- Dock lumber work for beams, pile caps, diagonal braces, blocking, etc.
- Submit drawings of treated lumber showing dimensions of cut, framed, or bored lumber.
- Submit documentation of compliance with WWPA BMP requirements for preservative treated wood.

Technical Data

- Submit technical product data for all lumber and timber.

DELIVERY AND STORAGE

Open-stack untreated timber and lumber material on skids at least 12 inches above ground, in a manner that will prevent warping and allow shedding of water. Close-stack treated timber and lumber material in a manner that will prevent long timbers of pre-framed materials from sagging or becoming crooked. Keep ground under and within 5 feet of such piles free of weeds, rubbish, and combustible materials. Protect materials from weather. Handle treated timber with ropes or chain slings without dropping, breaking outer fibers, bruising, or penetrating surface with tools. Do not use cant logs, peaveys, hooks, or spike holes. Protect timber and hardware from damage.

QUALITY ASSURANCE

MSDS and CIS

Provide Material Safety Data Sheets (MSDS) and Consumer Information Sheets (CIS) associated with timber pile preservative treatment. Contractor shall comply with all safety precautions indicated on MSDS and CIS.

Lumber Preservative Inspection

Submit the inspection report of an independent inspection agency, for approval by the Engineer, that demonstrate offered products comply with applicable AWPAs Standards. Identify treatment on each piece by the quality mark of an agency accredited by the Board of Review of the American Lumber Standard Committee.

Delivery Inspection List

Field inspect and submit a verification list of each treated timber member and each strapped bundle of treated lumber indicating the working and lettering of the quality control markings, the species and the condition of the wood. Do not incorporate materials damaged in transport from plant to site. Inspect all preservative-treated wood visually to ensure there are no excessive residual materials or preservative deposits. Material shall be clean and dry or it will be rejected due to environmental concerns.

PRODUCTS

MATERIALS

Wood Dock

Solid Sawn Lumber

Provide solid sawn southern pine timber and lumber graded in accordance with the current SPIB grading rules and conforming to Grade No. 1 Dense or Select Structural (Sel Str.). All timber and lumber shall bear the grade mark of an ALSC-accredited agency. Preservative treatment shall comply with AASHTO M133 and AWPAs U1 for the applicable Use Category. Provide Type 4 Certified Test Reports and Type 6 Supplier Certifications in accordance with Article 106-3, including documentation of any chain-of-custody changes from the mill to the Department. All treated timber shall be clean, dry, and free of excessive preservative residue.

Composite Decking

Composite decking shall be used for the dock walking surface in accordance with the Contract

Drawings. Composite decking shall be a solid, marine-grade product suitable for ground contact and waterfront installation, and shall meet the following minimum standards:

- Nominal dimensions: 2 inches by 6 inches.
- Maximum allowable joist span: 24 inches on center.
- Minimum live load rating: 100 pounds per square foot at 24-inch span.
- Slip-resistant surface, UV-resistant, and resistant to mold, mildew, and pests.
- Compliant with ASTM D7032 for structural composite deck boards.
- Product must be warranted for marine or waterfront use.

Submittals for composite decking shall include manufacturer's span tables, load ratings, and documentation of compliance with these requirements. Alternative products must be pre-approved and shall demonstrate equivalent or superior performance.

Preservative Treatment

All sawn lumber supplied for construction on this project shall receive preservative treatment in accordance with AASHTO M133 and AWWA U1 for the specified Use Category. Each treated piece shall bear the quality mark of an ALSC-accredited inspection agency in accordance with AWWA M6. Field cuts, notches, and abrasions shall be treated in accordance with AWWA M4.

Steel Plates and Structural Shapes

All metal products required for the construction of the wood dock shall be supplied in accordance with Special Provision Metal Fabrications and as specified on the Contract Drawings.

Hardware

Hardware for the construction of the wood dock shall consist of bolts with necessary nuts and washers, timber connectors, drift pins, dowels, nails, screws, spikes, and other fastenings as defined in the Contract Drawings. Bolts and nuts for connecting wood shall conform to ASTM A 307. Fasteners for connecting steel shall conform to the requirements of Special Provision Metal Fabrications. Washers shall be provided for both bolt head and nut unless otherwise specified. Provide cast-iron ogee, malleable iron washers, or plate or cut washers where indicated. Provide bolts with washers under nut and head. Provide timber connectors and other metal fastenings of type and size shown. Hot-dip galvanize all hardware and fasteners. Fasteners shall conform to ASTM A307 and ASTM A153.

Zinc-Coating

Fasteners should be hot dipped galvanized per ASTM A153 with 2 ounces of zinc per square foot.

Size, Type, Material, Finish

Provide the size, type, material and finish as specified and as indicated on the Contract Drawings and as recommended by applicable standards and building codes, complying with Federal specifications for nails, screws, bolts, nuts, washers and anchoring devices.

EXECUTION**CONSTRUCTION**

Cut, bevel, and face lumber and timber prior to plant preservative treatment. Provide protective equipment for personnel fabricating, field treating, or handling materials treated with creosote or water-borne salts. Refer to paragraph entitled "MSDS and CIS."

General Framing Requirements

Cut and frame lumber and timber so that joints will fit over contact surface. Secure lumber and piles in alignment. Open joints are unacceptable. Shimming is not allowed. Bore holes for drift pins and dowels with a bit 1/16 inch less in diameter than the pin or dowel. Bore holes for bolts with a bit 1/16 inch larger in diameter than rod or bolt. Bore holes for lag screws in two parts. Make lead hole for shank the same diameter as shank. Make lead hole for the threaded portion approximately two-thirds of the shank diameter. Counter bore for countersinking wherever smooth faces are indicated or specified.

Beams

Place crown up and, if possible, the better edge of deck stringers down. Tops of stringers shall not vary from a plane more than will permit bearing of the floor on stringers. Butt-joint and splice outside stringers, but lap interior stringers to take bearing over full width of cap or floor beam at each end. Break joints if stringers cover two spans. Toe nail or drift bolt stringers as indicated. Stringers may be of sufficient length to cover two spans, except on sharp horizontal curves. Between stringers, frame and toenail cross-bridging or solid-bridging at each end with at least two nails for cross-bridging and four nails for solid-bridging. Make size and spacing of bridging as indicated.

Decking

Decking for the docks shall be composite decking meeting or exceeding the requirements stated above. Install decking in accordance with manufacturer's instructions and the Contract Drawings. Make decking of a single thickness of plank supported by stringers or joists. Screw each plank to each joist or nailing strip in accordance with the Contract Drawings. Provide screws at least 4 inches greater than the thickness of plank. Place screws at least 2 ½ inches from edges of the plank. Cut ends of planks parallel to centerline of walkway.

Fastening

Vertical bolts shall have nuts on the lower end. Where bolts are used to fasten timber to timber, timber to concrete, or timber to steel, bolt members together when they are installed and retighten immediately prior to final acceptance of contract. All bolts shall be supplied with nuts and washers for both ends. Provide bolts having sufficient additional threading to provide at least 3/8 inch per foot thickness of timber for future retightening. Bolt heads, nuts, and shank used to connect the walers to the face piling, shall be countersunk into the face piles as required, to prevent interference.

Steel Plates and Structural Shapes

The fabrication and installation of steel plates and structural shapes shall be conducted in accordance with Special Provision Metal Fabrications.

FIELD TREATMENT**Lumber Work**

Field treat cuts, bevels, notches, refacing and abrasions made in the field in treated lumber or timbers in accordance with AWPA M4, MSDS and CIS. Wood preservatives are restricted use pesticides and shall be applied according to applicable standards. Trim cuts and abrasions before field treatment. Paint depressions or openings around bolt holes, joints, or gaps including recesses formed by counterboring, with preservative treatment used for piles or timber; and after bolt or screw is in place, fill with hot pitch or a bitumastic compound.

Galvanized Surfaces

Repair and recoat zinc coating which has been field or shop cut, burned by welding, abraded, or otherwise damaged to such an extent as to expose the base metal. Thoroughly clean the damaged areas by wire brushing and remove traces of welding flux and loose or cracked zinc oxide-zinc dust paint conforming to MIL-P-21035. Compound paint with a suitable vehicle in a ratio of one part zinc oxide to four parts zinc dust by weight.

MEASUREMENT AND PAYMENT**Wood dock****Measurement:**

Measurement for the wood dock work as specified in this section will be made, based on the number of square feet (SF) of wood dock, constructed at the locations shown on the Contract Drawings and within the lines and grades shown on the Contract Drawings and as specified. Measurement will be made on the surface area of the new decking.

Composite decking

Measurement for composite decking will be made based on the number of square feet (SF) of composite decking installed, meeting or exceeding the minimum requirements for marine-grade composite decking as specified above.

Payment:

Payment for the Wood Dock work will be made at the unit price for Wood Dock. This price includes the material supply, fabrication, installation, and erection of all wood and steel components for the superstructure (decking, beams, framing, connectors, etc.) required for the Wood Dock.

Payment for composite decking will be made at the unit price for Composite Decking. This price includes the supply, fabrication, and installation of composite decking meeting or exceeding the minimum requirements for marine-grade composite decking as specified above.

Payment will be made under:

Pay Item	Unit
Wood Dock	SF
Composite Decking	SF

FOUR PILE CLUSTER TIMBER DOLPHINS**DESCRIPTION**

The work under this item shall consist of furnishing all materials and installing four pile cluster timber dolphins of the type required at the locations shown on the Contract Drawings.

MATERIALS

Treated timber piles shall conform to the applicable Special Provision Treated Timber Piles. All timber piles shall be southern pine graded in accordance with the current SPIB grading rules and shall conform to Grade No. 1 Dense or Select Structural (Sel Str.). Each pile shall bear the grade mark of an ALSC-accredited agency. Preservative treatment shall comply with AASHTO M133 and AWWA U1, Use Category UC5B. CCA preservative is acceptable when used in accordance with AWWA U1 for UC5B applications. Provide Type 4 Certified Test Reports and Type 6 Supplier Certifications in accordance with Article 106-3, including documentation of any chain-of-custody changes from the mill to the Department.

All timber piles shall have a butt diameter of not less than 14 inches and a tip diameter of not less than 7 inches.

Timber blocking shall be southern pine or Douglas fir treated in accordance with AASHTO M133 and AWWA U1 for the applicable Use Category and shall bear the quality mark of an ALSC-accredited inspection agency in accordance with AWWA M6.

Sizes of lateral bracing shown on the plans are nominal size.

Galvanized wire rope shall conform to ASTM A603. Galvanized steel wire staples shall conform to ASTM A641. Stainless steel cable clamps shall conform to ASTM F593.

CONSTRUCTION DETAILS

The Contractor shall verify the location of the utilities prior to installation of the piles.

Preparation of Piles

Points - The pile tips shall be sawed square so that, when cut off, the end is perpendicular to the longitudinal axis of the pile or tapered to a point not less than 4 in in diameter.

Butts - The butts of the piles shall be sawed square.

Splices - The piles shall not be spliced.

Methods of Driving. The driving of piles shall be done with an air/steam, diesel, or hydraulic hammer. The order of driving will be determined by the Engineer. Equipment utilized for driving timber piles shall conform to the requirements of Special Provision Treated Timber Piles.

Length of piles. All piles shall be driven to the depth as shown on the Contract Drawings.

Allowable variation in pile alignment. Piles shall be truly vertical or accurately battered as shown on the plans. The top of any pile driven its full length into the ground shall not vary from the plan location by more than 4 inches, unless otherwise shown on the plans.

Defective piles. All piles forced up by any cause shall be driven down again, as directed by the Engineer. The following shall be causes for rejection of a pile:

Pile location or batter is incorrect

Pile is damaged from any cause whatsoever.

Pile tip elevation is not within the limits called for on the plans, or specified by the Engineer.

Pile is determined by the Engineer to be unserviceable for other reasons related to the furnishing and installing of the pile.

The Contractor shall withdraw such rejected piles and replace them with new longer piles (if necessary) at the Contractor's expense.

Piles that are split, splintered or broomed from driving operations are not acceptable. Any pile broken by reason of internal defects (even though the Engineer permitted it to be put in the leads), or by improper driving shall be rejected.

Cutting off piles. The tops of all piles shall be cut off at the elevation indicated on the Contract Drawings or as specified by the Engineer. The cut shall be clean and to a true plane, in accordance with the detail shown on the plans. All cut off lengths shall become the property of the Contractor and shall be removed by him from the site of the work.

Associated work. All cavities or voids, left by the extraction of damaged piles or from auger bolts or soil deformations necessary to place piles, shall be backfilled as specified by the Engineer.

Storage and Handling. The method of storing and handling of piles shall be such as to avoid injury to the piles.

After each pile in the cluster has been driven to its specified depth, the Contractor shall insert the timber blocking in the positions shown on the plans. The pile cluster shall then be clamped so that the tops of the piles abut each other, and with the clamp in place, the Contractor shall wind the galvanized wire rope around the cluster three times at each of the locations shown on the Contract Drawings. The leading end of the rope shall be fastened to one pile by inserting the end of the rope through a hole to be drilled into the pile. The trailing end of the wire rope shall be clamped as shown on the plans. After wrapping, the top clamp shall be removed.

The tightness of the wire rope shall be subject to the approval of the Engineer. After the Contractor receives approval of the tightness of the wire rope, he shall install a stainless-steel cable clamp and the galvanized steel wire staples as shown on the plans.

METHOD OF MEASUREMENT

The quantity to be paid for under this item shall be the number of four pile cluster timber dolphins installed.

BASIS OF PAYMENT

The unit price bid per four pile cluster timber dolphins shall include all labor, materials, equipment and incidentals necessary to complete the work.

Payment will be made under:

Pay Item	Unit
4-Pile Cluster Timber Dolphin	LF

RUBBER MARINE FENDERS**GENERAL**

Scope

The work in this section consists of furnishing all equipment, labor and materials; and performing all operations in connection with procuring, transporting, handling, storing, and installing new pile mounted elastomeric D fenders, as indicated in this Special Provision and in the Contract Drawings.

DESCRIPTION OF WORK

The work shall include new fender systems and all ancillary components, including steel brackets and bolts required to connect the fenders to the steel piles. The fender systems consist of elastomeric extrusion type "D-D300" fenders as supplied by Trelleborg Marine System USA (337-321-4240) or approved equal and the ancillary components, including steel brackets and bolts required to connect the fenders to the steel piles defined in the Contract Drawings.

The Contractor shall provide a fender which meets the indicated requirements. The Contractor shall utilize the products and materials as specified to provide a fender that will meet the general intent of use and the minimum testing requirements. Whenever minimum limits are given in paragraph entitled "Submittals" the Contractor shall construe these to be the lower construction design limits. These construction minimums shall be exceeded wherever required in order to meet the provisions of this Special Provision.

The extent and location of the work to be performed as part of the Marine Fenders installation is indicated on the Contract Drawings. Material and installation shall meet the requirements of this specification, the Contract Drawings, the reference standards, and the applicable provisions of pertinent codes.

RELATED DOCUMENTS

The provisions and intent of the Contract, apply to this work as specified in this Special Provision. Work related to this Special Provision is described in:

SUBMITTALS

The following items shall be submitted to the Owner for review and approval:

Shop drawing of steel bracket for securing Fenders to the steel piles

Certificate of conformance for the following:

Nuts and bolts

Fender material

Sample Fender system

PRODUCTS**GENERAL**

The Extrusion Fenders shall be fabricated from extruded elastomeric material.

PERFORMANCE**HARDWARE:**

All related hardware including anchor plates, bolts, anchor bolts and steel brackets suitable for mounting the fender system onto the steel fender piles. All metal ancillary materials shall comply with Special Provision Metal Fabrications.

FENDERS

General. The proposed fenders shall be Type D elastomeric fenders capable of absorbing sufficient energy to prevent overloading of the fender and contact of the vessel with the piles.

Performance. The proposed fenders shall be capable of absorbing the design energy with a reaction at the design deflection stated below. The tolerance for performance shall be +/-20%. The fender energy absorption capacity shall be as follows:

Reaction	=	232 kN/m
Energy Absorption	=	13 kN-m/m
Deflection	=	50%

Properties. The rubber for the proposed fender is to be natural or synthetic rubber or a mixture of them. These shall be reinforced with carbon black and resistant to aging, seawater, abrasion, and ultraviolet rays.

The rubber to be homogenous in quality and free from foreign materials, bubbles, injuries, cracks and other harmful defects.

All mounting holes must be drilled a minimum of 6" from the ends of the fender. The spacing of the mount holes shall be equally spaced at $\geq 12"$ and $\leq 16"$.

Rubber Properties

Property Tested		Test Method	Acceptance Requirements
Before Aging	Hardness	ASTM D2240 Shore A	70° +/- 5°
	Tensile Strength	ASTM D412 Die C	11.0 MPa Min
	Ultimate Elongation		300% Min
After Aging	Change in Hardness	ASTM D573 96 hrs @ 70°C	+10° Max
	Change in Tensile Strength		-25% Max
	Change in Ultimate Elongation		-25% Max
Compression Set		ASTM D395 Method B 22 hours at 70°C	25% Max
Ozone Resistance		ASTM D1171 Method A	No Visible Cracks
Abrasion Resistance		BS 903.A9 Method C - 3000 rev	180mm ³ Max (ASTM D5963-04 or BS ISO 4649-2002)
Tear Resistance		ASTM D624 Die B	35 kN/m Min (ASTM D624 Die B)

Performance Verification. The performance of the fender is to be expressed by the value of the energy absorbed during compression of the fender up to the designed deflection and the maximum value of the reaction load generated.

In the performance test of the fender, compression is to be applied toward the top face of the fender. The compression speed shall follow current PIANC Fender Performance Testing guidelines and shall be recorded during testing. Deflection of the fender is to be cycled for three times up to the designed deflection. A fourth deflection cycle shall determine the fender performance.

For the performance test of the fender, the room temperature at the time of the tests shall be recorded. The fenders shall achieve a performance with +/-20% of the stated nominal design performance.

Sampling. The specimen for testing and inspection of the materials, dimensions, and performance shall be sampled as specified below. The specimen to be used for the material test shall be taken directly from the product or from the rubber prepared in the quality check and under the condition of the same vulcanization as the products.

Test Item	Number of Sampling
Material	1 set from the lot of compounds for the manufacture of the fenders.
Dimensions	All fenders.
Performance	1 piece per 10 pieces of fender.

EXECUTION

GENERAL EXECUTION

The Contractor shall plan and perform all necessary personnel, equipment, and infrastructure safety precautions prior to the commencement of any fender installation work. The contractor shall coordinate with the Owner the fender system work and abide by Safety Regulations at all times.

The fender systems components shall be installed as per the Manufacturer's recommendations to the elevations, offsets, and with the materials identified to within the tolerances allowed.

Any installation problems due to differing fender components and/or field geometries, damaged materials, or any other factor shall be immediately notified to the Owner's Representative for resolution.

Any accidental damage to the fenders, connectors, etc., shall be immediately notified to the Owner, and repaired to the Owner's satisfaction at no additional cost to the Owner.

Installation of fender mounts shall be installed as recommended by fender manufacturer.

A schedule for delivery of the complete set of fender systems and all related hardware including delivery to the nearest port of import shall be included with the bid proposal.

The rubber fenders shall be packaged while being delivered to the construction site so as to prevent damage to the fenders.

MEASUREMENT AND PAYMENT

Measurement

Measurement for the rubber marine fenders work as specified in this section will be made, based on the unit price of each (EA) rubber fender, constructed as specified at the locations shown on

the Contact Drawings and within the lines and grades on the Contract Drawings and as specified.

PAYMENT

Payment for the Rubber Marine Fenders work will be made at the unit price for Rubber Fender. This price includes the material supply, fabrication, installation, and erection of all wood and steel components including metal framing to attach the fenders to the piles for the Rubber Marine Fenders. Payment will be made under:

Pay Item	Pay Unit
Rubber Fender	Each

METAL FABRICATIONS (Mooring Cleats)**GENERAL****SUMMARY**

This Special Provision covers the detailing, supply, fabrication and installation of steel metal components including all miscellaneous metal fabrication and connection components required to complete the work as required by the Contract Drawings and Special Provisions. Work included in this Special Provision is as follows:

Support Connections

Bolts, nuts, threaded rod, and studs

Miscellaneous Fabricated Metal items

APPLICABLE PUBLICATIONS

The publications listed below form a part of this Special Provision to the extent referenced. Latest editions apply.

AWS

D1.1 Structural Welding Code – Steel

AISC

AISC 303 Code of Standard Practice for Steel Buildings and Bridges

AISC 360 Specifications for Structural Steel Buildings

ASTM

A36 Carbon Structural Steel

A307 Carbon Steel Bolts, Studs, and Threaded Rod

A325 Structural Bolts, Steel, Heat Treated

A563 Carbon and Alloy Steel Nuts

F593 Stainless Steel Bolts, Hex Cap Screws, and Studs

F594 Stainless Steel Nuts

SSPC

Good Painting Practices Vol. 1 & 2

GENERAL

Miscellaneous metals material specification requirements shall apply to all metal items unless otherwise identified or noted on the Contract Drawings.

Temporary construction. The Contractor is responsible for temporary bracing and support of all structures during construction and shall protect all exposed partially complete work against damage. The Contractor shall take precautions to assure that the structure is adequately braced to avoid damage from wave or wake action during construction. Any structural component damaged during construction shall be replaced by the Contractor at no cost to the Owner.

QUALITY ASSURANCE

Fabricate and install steel components in accordance with AISC 303 and AISC 360.

Fabricator qualifications: The Contractor shall engage an experienced fabricator who has completed metal fabrication work similar in material, design, and extent to that indicated for this project and with a record of successful in-service performance. The fabricator shall be an ICBO "Approved Fabricator" as defined in the International Building Code for an AISC Certified Fabricator.

MATERIAL TESTING

Miscellaneous metals and appurtenant materials shall be tested and certified by the manufacturer to meet the specified chemical, mechanical, and section property requirements prior to delivery to the site. Testing of miscellaneous metals for mechanical properties shall be performed after the completion of all rolling and forming operations. Testing of miscellaneous metals shall meet the requirement of ASTM A6.

SUBMITTALS

Action Submittals:

Shop drawings: Drawings and complete bills of material for metal fabrications, frame connection fabrications, attachments, and any other miscellaneous metal fabrications, and all fabricated assemblies. All connections shall be fully detailed, and all welds shall be shown on the Shop drawings. Shop drawings shall be adequate for field-assembly.

Design drawings and supporting calculations for fabrication items designed by the Contractor's chosen fabricator. Such design documentation shall be submitted for review and approval by the Owner prior to fabrication.

Submit manufacturers' mill certificates and certificates of compliance for the following materials as applicable:

Steel

Fasteners

Placement drawings: Show location in the Project of all fabrications, cross-referenced to the shop drawings.

Fabrication work plan: Written description of plan for fabrication and installation including proposed schedule and procedures shall be submitted to the Owner.

Product data:

Installation instructions and general recommendations including warranties from manufacturers for all products used as part of the work and technical data sheets defining performance properties.

Manufacturer's literature and data for products used that demonstrates compliance with the applicable materials specifications.

Copy of the Materials Safety Data Sheets (MSDS) and Consumer Information Safety (CIS) sheets to the Owner.

Company data: The Contractor shall submit the proposed metal fabricator and galvanizing subcontractors' name, address, contact name, phone number and company information, verifying that the company is following the Special Provision, to the Owner for review.

Welder certificates: Provide for proposed welders showing that they have been qualified to AWS D1.1, as applicable.

Welding procedures: Contractor to submit welding procedures for approval of Owner. Welding variations on submitted welding procedures shall conform to weld filler metal manufacturers' recommendations unless a procedure is qualified by testing, in which case procedure qualification records should be submitted with the corresponding procedure. Preheat and interpass temperature shall be in accordance with AWS D1.1 Annex I.

All independent inspection reports required in this Special Provision.

PRODUCTS**Metal Materials**

The Contractor shall supply miscellaneous metal connectors, and other metal items required to fabricate the project components. Miscellaneous structural steel materials shall be new, free from defects and imperfections, and shall, unless otherwise indicated, conform to the following:

Steel W Shapes: ASTM A992 Gr. 50.

Steel HP Shapes: ASTM A572 Gr. 50.

Steel rectangular, round, and square HSS: ASTM A500 Gr. B (46ksi).

Steel plate, flatbar, channels, angles: ASTM A36.

Steel pipe: ASTM A53 Grade B, Type S.

Steel pipe pile: ASTM A252, Grade 3 (fy=50 ksi min.)

All carbon steel to be welded shall have a carbon equivalency (C.E.) less than 0.40 as calculated by the following equation, which is described in more detail in AWS D1.1 Annex I

$$CE = C + (Mn + Si) / 6 + (Cr + Mo + V) / 5 + (Ni + Cu) / 15$$

Where:

CE	= Carbon Equivalency
C	= Carbon
Mn	= Magnesium
Si	= Silicon
Cr	= Chromium
Mo	= Molybdenum
V	= Vanadium
Ni	= Nickel
Cu	= Copper

Material with laminar discontinuities may be rejected by the Owner if the discontinuities are perceived to decrease the connection quality or strength, at discretion of the Owner. Material with laminar discontinuities shall at a minimum be repaired with an Owner approved repair procedure. The Contractor shall notify the Owner immediately if laminar discontinuities are discovered.

Materials for proprietary system or contractor-supplied components shall meet manufacturer's recommendations/specifications, unless otherwise approved by the Owner.

Steel plate, bar and shapes shall be true to line and free from warp or twist.

Substitution of the metal grades specified shall not be performed without written approval from the Owner.

Requirements for Fasteners, Hardware and Weldments

Bolt, anchor bolt, washer, and nut requirements vary depending on the materials being fastened.

Steel to steel:

Standard Connection: Regular hot-dip galvanized hexagon head type bolts shall be used in accordance with ASTM A325, with threads excluded from the shear plane unless otherwise noted. Hardened washers conforming to ASTM F436 shall be used under all nuts and bolt heads unless otherwise noted. Nuts shall be heavy hex nuts conforming to ASTM A563 and shall be lubricated. Lock nuts conforming to ASTM A563 shall be used if shown on the Contract Drawings.

Slip Critical Connections: Regular hot-dip galvanized hexagon head type bolts shall be used in accordance with ASTM A325, with threads excluded from the shear plane unless otherwise noted. Hardened washers conforming to ASTM F436 shall be used under all nuts and bolt heads unless otherwise noted. Nuts shall be heavy hex nuts conforming to ASTM A563 and shall be lubricated. Standard direct tension indicating washers (DTIs) conforming to ASTM F959 shall be used in accordance with manufacturer's recommendations to facilitate proper bolt tensioning. Direct tension indicating washers shall be mechanically galvanized in accordance with ASTM B695.

Aluminum to steel (stainless hardware):

Hardware shall be type 316 stainless steel, with chemistry suitable for marine exposure; and nuts shall be type 304 stainless steel, with chemistry suitable for marine exposure. Regular hexagon head type bolts shall be used in accordance with ASTM F593. Washers shall be used under all nuts and bolts heads unless otherwise noted. Heavy hex nuts and lock nuts conforming to ASTM A563 shall be used on all bolts and shall be lubricated.

Threaded rod. Hot-dip galvanized threaded rod shall be supplied in conformance with ASTM F1554, Grade 36 unless otherwise noted. Hardened washers conforming to ASTM F436 shall be used under all nuts bearing on steel and malleable iron washers conforming to ASTM A47 and lock nuts shall be used under all nuts bearing on timber. Lock nuts shall be provided on each end of threaded rod passing through timber. Nuts shall be heavy hex nuts and shall conform to ASTM A563 and shall be lubricated.

Econ Head Bolts: Hot-dip galvanized Econ head bolts shall be supplied in conformance with ASTM A307 Grade A unless otherwise noted. Hardened washers conforming to ASTM F436 shall be used under nuts. Nuts shall be heavy hex nuts conforming to ASTM A563 and shall be lubricated. Standard direct tension indicating washers (DTIs) conforming to ASTM F959 shall be used in accordance with manufacturer's recommendations to facilitate proper bolt tensioning.

Screws shall be type 316 stainless steel unless otherwise noted.

Nails shall be 3.5 inch 16d double hot-dip galvanized unless otherwise noted.

Beveled washer thickness is measured in the center of the washer.

Plate washers shall be 1/4 inch thick plate, with a diameter matching the equivalent malleable iron washer unless otherwise noted.

Make exposed fastenings of compatible materials, generally matching in color and finish, to which fastenings are applied.

Metal Fabrication

Steel: Fabrication of steel parts shall conform to the applicable provisions of the AISC – Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings and AWS D1.1, Structural Welding Code Steel.

Items shall be shop fabricated to the extent practicable for transportation and handling. Splice details and locations shall be shown in the shop drawings.

Parts shall be match-marked to ensure accurate installation.

Tolerances. Items shall be fabricated to the tolerances indicated herein or on the Contract Drawings, or if not specified, to accepted industry standards.

Work points on beams, braces, columns, gusset plates, etc. shall be concentric unless otherwise noted.

Repair of painted surfaces. Repair all damaged painted surfaces in accordance with the paint manufacturer's recommendations.

Fabrication Marking

Marking the weight. Mark the weight on sub-assemblies and individual members weighing over 200 pounds.

Marking piece marks and directional arrows. Provide piece marks and directional arrows on all members and sub-assemblies requiring on-site assembly. Shop drawings shall show all piece marks.

Marking bare or painted materials. Make all shop markings plainly visible with a non-corrosive waterproof paint stick that will not compromise marking after coating, if applicable. Marking with a Sharpie brand pens is prohibited.

Marking materials to be galvanized. Stamp piece marks or match marks in material to be galvanized with metal dies so that the marks are clearly legible after galvanizing.

EXECUTION

Materials Delivery and Storage

Materials delivered to the site shall be new and undamaged and shall be accompanied by certified test reports. The manufacturer's mill identification mark shall be provided on components for traceability as required by the referenced specifications. Components shall be stored and handled in the manner recommended by the manufacturer to prevent permanent deflection, distortion or damage. Any such permanent deflection, distortion, or damage shall be repaired by the Contractor at the Contractor's expense to the satisfaction of the Owner. Storage of metal materials and/or fabrications should also facilitate required inspection activities.

Quality Assurance

Fabricate and install steel components in accordance with AISC 303 and AISC 360. Fabrication is to occur in accordance with the fabricator's quality program. Upon request, the fabricator may be asked to submit this quality program to the Owner for review.

Fabrication

The Contractor shall obtain all field measurements required for proper and adequate fabrication and installation of the work. Exact field measurements are the Contractor's responsibility.

Metal preparation: All structural steel and miscellaneous metal fabrications shall be fabricated in strict accordance with the approved shop drawings and the referenced standards. Materials must be straight before being laid out or worked. If straightening is necessary, it shall be done by methods that will not damage the metal. Sharp kinks or bends shall be cause for rejection of the material. Material with welds will not be accepted except where welding is specified, indicated or otherwise approved. Bends shall be made by industry standard method such as dies, press brakes or bending rolls. Where heating is required, precautions shall be taken to avoid overheating the metal and it shall be allowed to cool in a manner that will not damage the metal. Proposed flame cutting of material shall be subject to approval and shall be indicated in the shop drawings. Shearing shall be accurate and all portions of the work shall be neatly finished.

Bolt holes shall be provided where required or specified and at the proper location or position. Holes in metals members shall be shop punched and reamed or drilled. Flame cutting or drilling of holes shall not be allowed. Unless otherwise indicated or specified, all bolt holes through metal members shall be standard size; 1/16 inch larger in diameter than the diameter of the fastener being installed. For steel assemblies to be galvanized after assembly, all holes shall be oversize; 1/8 inch larger in diameter than the diameter of the fastener being installed.

Metal may be cut by mechanically guided or hand-guided torches, provided an accurate profile with a surface that is smooth and free from cracks and notches is obtained. Surfaces and edges to be welded shall be prepared in accordance with AWS requirements. Where structural steel is not to be welded, chipping or grinding will not be required except as necessary to remove slag and sharp edges of mechanically guided or hand-guided cuts not exposed to view. Hand-guided cuts that are to be exposed or visible shall be chipped, ground or machined to sound metal.

Fit exposed connections accurately together to form tight hairline joints. Weld connections which are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut or abrade the surfaces of exterior components which have been hot-dip galvanized after fabrication, and are intended for bolted or screwed field connections.

Shop assembly: Structural unit furnished shall be assembled in the shop to determine the correctness of the fabrication and matching of the component parts unless otherwise specified. Tolerances shall not exceed those shown. Each unit assembled shall be closely checked to ensure that all necessary clearances have been provided. Errors or defects disclosed shall be immediately remedied by the Contractor without cost to the Owner. Before disassembly for shipment each piece of a structural unit shall be match-marked to facilitate erection in the field. The location of match-marks shall be indicated by circling with a ring of white paint after the shop coat of paint has been applied or as otherwise directed.

Metal fabrications shall be placed accurately in location, alignment and elevation, plumb, level, true and free of rack, measured from established lines and levels.

Dissimilar metals. Where dissimilar metals are in contact, such as in steel to aluminum connections, the surfaces shall be protected to prevent galvanic action. All bolted connections shall be isolated by using UHMW PE or fiberglass insulating washers a minimum of 1/16 inch thick, spacers and nylon sleeves (ferrules) in the bolt holes to prevent steel bolts from coming in contact with aluminum. Isolating material shall cover the entire contact surface and shall be applied in conformance with the manufacturer's recommendations. Isolating material shall be shown on the shop drawings.

General Welding Requirements

Welding shall be done in accordance with AWS procedures, including procedures for repair of defective welds.

All welds shall be visually inspected by a Contractor provided independent testing company. The components shall be inspected as statically loaded, non-tubular and tubular connections in accordance with AWS requirements.

All welds and edges that may be encountered by the public after construction shall be ground to remove all burrs and weld splatter to the satisfaction of the Owner.

The Owner, at his discretion, may non-destructively test welds in accordance with AWS criteria. Acceptance criteria shall be for non-cyclic loading. Welds failing shall be repaired at the Contractor's expense, which will also include all costs for retesting to achieve a passing inspection test.

Steel Welding

Qualifications. Steel welding shall be performed by welders certified as being qualified in accordance with AWS D1.1, Section 5, Parts C and D or WABO for steel welding. Welders shall be qualified to perform full penetration groove welding in all positions of the relevant type (plate, tube, etc.), using the procedures, materials, and equipment of the type required for the work. All welding shall conform to AWS D1.1. All welds shall be visually inspected by a Contractor provided independent testing company.

Weld filler metal. Weld filler metal shall meet Charpy requirements of 20 foot-pounds at -20 degrees Fahrenheit and shall have chemistry similar to the base metal. Filler metals shall only be used in welding positions recommended by the filler metal manufacturer, and any welds not conforming to manufacturer's recommendations shall be removed and replaced by the Contractor at the Contractor's expense. Welding consumables shall be stored in accordance with the manufacturer's recommendations and in accordance with AWS requirements and recommendations. Overmatching weld filler metals shall be avoided.

Preheat. Preheat shall be based on material grade and thickness in accordance with AWS requirements.

Inspection timeline. Prior to galvanizing, all required weld inspections and required repairs shall be performed.

Welding galvanized/metalized components. All welding shall be done prior to galvanizing if possible, unless otherwise required for field-assembly. Galvanizing/metalizing within one inch of the finished weld location shall be removed prior to welding.

Fillet weld soundness Test. Fillet weld procedures shall be qualified by a fillet soundness test in accordance with AWS requirements.

Surface Preparation

Painting operations shall occur indoors in a controlled shop environment.

Paint products shall be used in full conformance with the manufacturer's recommendations.

Do not apply coatings in snow, rain, fog, or mist; when relative humidity exceeds 85% at temperatures less than 5° F above the dew point; or to damp or wet surfaces.

Steps for surface preparation prior to painting shall be as follows unless otherwise recommended by paint manufacturer or specified in other related Specifications:

SSPC SP-1 Solvent Cleaning

SSPC SP-10 Commercial Blast Cleaning with a minimum angular profile of 1.5 mils.

Prior to painting verify that surfaces to be coated are dry, clean and free of dust, dirt, oil, wax, grease or other contaminants.

Apply primer immediately after blast cleaning, adhering to manufacturer's recommendations for maximum lag time between blasting and painting.

Installation

General. All parts to be installed shall be thoroughly cleaned. Packing compounds, rust, dirt, grit and other foreign matter shall be removed. Holes and grooves for lubrication shall be cleaned. Enclosed chambers or passages shall be examined to make sure that they are free from damaging materials. Where units or items are shipped as assemblies they will be inspected prior to installation. Disassembly, cleaning and lubrication will not be required except where necessary to place the assembly in a clean and properly lubricated condition. Pipe wrenches, cold chisels or other tools likely to cause damage to the surfaces of rods, nuts or other parts shall not be used for assembling and tightening parts.

Alignment and settings. Each structural unit shall be accurately aligned by the use of steel shims or other approved methods so that no binding in any moving parts or distortion of any member occurs before it is fastened in place. The alignment of all parts with respect to each other shall be true within the respective tolerances required.

All galvanized steel hardware surfaces to be in contact with new treated lumber shall be covered with a layer of dielectric grease prior to installation. The Contractor shall take all required measures to ensure that dielectric grease is applied in a careful manner, and excess grease removed prior to hardware installation. Any grease that has been inadvertently applied to other components shall be immediately removed.

All bolts shall be installed at the proper location and set straight and square with connecting members. Bolt installation shall conform to the requirements of AISC specification for structural joints using ASTM A325 Bolts for steel and A276 for stainless steel.

Bolts, nuts, and screws shall be tight in accordance with industry standards. Carbon steel bolts shall be tightened with the turn-of-the-nut method unless otherwise noted. Bolts, nuts, and screws shall be tightened firmly and uniformly but care shall be taken not to overstress the threads. Care shall be exercised when tightening bolts passing through tubular members so as not to distort the member.

When a lock nut is used for a metal-to-metal connection, the lock nut shall be installed first at approximately half-tightness, followed by the full nut installed to full tightness. The lock nut shall be held in place while the full nut is tightened.

Driving or drifting bolts will not be permitted

Holes for concrete anchors shall be made using a steel plate template by either core drilling or hammer drilling with a tool adequate for the task. Diamond-tipped tools shall not be used. Holes shall be thoroughly cleaned with a wire brush and oil-free compressed air.

Concrete anchors shall be installed in accordance with the Manufacturers recommendations. Special inspection is required for all adhesive anchors.

Holes for anchors shall be inspected after final cleaning for conformance with the project requirements and manufacturer’s installation instruction by an independent testing agency. Reports are to be submitted to the Owner for approval and shall be approved prior to making the anchors inaccessible.

Handling and Lifting

Means and methods are the full responsibility of the Contractor. Handling and lifting shall be done in a way so as to prevent damage. Care shall be taken to avoid damaging coatings during handling. The Contractor shall develop and use lifting and handling plans if required for safety reasons (such as overhead lifting), or to ensure that components of the work are protected from damage.

All lifting equipment shall comply with industry standards, and be appropriately labeled if required.

METHOD OF MEASUREMENT

Payment will be made under:

Pay Item	Unit
Metal Fabrications (Mooring Cleats)	EA

ALUMINUM BOARDING RAMPS AND HOIST FRAMES**GENERAL****DESCRIPTION**

The work under this item shall consist of all labor, materials, tools, and equipment necessary to finalize the design, fabricate, assemble, and furnish the aluminum framing for the boarding ramps and associated appurtenant structures including the manual and electrical hoist systems and motors to operate the boarding ramps including the supporting structural frame and manual or motorized hoist systems.

Size, shape and layout of all structures are indicated in the Contract Drawings

The Contractor is responsible for developing final engineering design, layouts and details based on site conditions, design criteria, and Contract Drawings and Special Provisions.

The design, manufacture, and installation of the aluminum structures systems shall be performed by experienced personnel meeting the minimum qualifications as defined in this Special Provision.

APPLICABLE PUBLICATIONS

The publications listed below form a part of this Special Provision to the extent referenced. Latest editions apply.

AA

AA Aluminum Design Manual

AWS

AWS D1.1 – Structural Welding Code, Steel

AWS D1.2 – Structural Welding Code, Aluminum

ASTM

ASTM B308 – Aluminum Alloy 6061-T6 Standard Structural Profiles

ASTM B221 – Aluminum and Aluminum Alloy Extruded Bars, Rods, Wire, Profiles and Tubes

ASCE

ASCE 07 – Minimum Design Loads and Associated Criteria for Buildings and Other Structures

AISC

Code of Standard Practice for Steel Buildings and Bridges

Specification for Structural Steel Buildings

IBC

IBC – International Building Code

CONTRACTOR RESPONSIBILITIES

The aluminum structures and associated connections shall be designed by the Contractor. The Contract Drawings and Special Provisions indicate the minimum requirements for the proposed aluminum structures. The Contract Drawings are intended to indicate basic configuration, performance and appearance criteria. Structural design of the aluminum structures, boarding ramp and hoist frame, is the responsibility of the Contractor.

Design and specification of the hoist and pulley system to operate the boarding ramp is the responsibility of the Contractor. Provisions to provide power to the electric hoists is included in the Contract Drawings. Manufacturer shall coordinate electric hoist power connection with the Contract Drawings, if changes are needed they must be notified in writing to the Owner prior to Contractor procuring the electrical work items.

The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures used for fabrication of the aluminum structures. The Contractor shall be responsible for overseeing that the finished work complies accurately with the Contract Drawings and Special Provisions and approved Shop Drawings.

The Contractor shall furnish all necessary materials, equipment, labor, testing, and incidentals for the successful completion of all work identified on the Contract Drawings and in these Special Provisions.

SUBMITTALS

Shop Drawings: Submit aluminum structures (boarding ramp and hoist frame) and hoist system shop drawings at least 30 days prior to those structures being fabricated. The submittal shall include signed and sealed engineering calculations. The shop drawings shall include layout plans, elevations, cross-sections, fabrication details, dimensions, materials, hardware finishing details and colors of the aluminum structures to be fabricated for the project. Shop drawings shall also include the detail of the connections to the dock, including weld details of fixed hinges and other assemblies connecting to the supporting dock and hoist frame. The shop drawings shall also include the design of the hoist system. The shop drawings shall comply with performance criteria specified in this Contract. Fabrication of the aluminum structures shall not begin until the shop drawings are approved.

The Contractor shall examine the site conditions and drawings and discuss any other requirements with his supplier prior to preparing shop drawings to avoid conflicts and verify dimensions, all physical conditions, and surroundings. The Contractor shall notify the Owner in writing of any unsuitable conditions. Commencement of work without such notification shall be construed as acceptance of all conditions.

Submit final engineering design calculations and aluminum structures drawings demonstrating that the aluminum structures including connections to the dock, transition plate and appurtenant structures comply with all design requirements. The aluminum structures drawings shall show all materials, member shapes and sizes, dimensions, quantities, connecting details and accessories.

Calculations and drawings shall be affixed with the appropriate stamps and signatures of a registered professional engineer in the state of North Carolina and who is experienced in the design of aluminum structures.

Shop drawings and samples required by the Special Provision shall be provided prior to the commencement of any fabrication work.

Submit manufacturers' mill certificates and certificates of compliance for the following materials:

Aluminum.

Fasteners.

The Delegated Engineer for the aluminum structures system structural design shall be a registered professional engineer in the State of North Carolina and who is experienced in the design of gangway and boarding ramp structures. The Engineer shall have at least five years documented work experience in the design of aluminum structures with at least 10 projects of similar scope.

Welders Qualifications:

Welders shall be currently certified in accordance with AWS D1.1 for structural steel and AWS D1.2 for aluminum welding, submit qualification test reports, and bearing witness certification of independent laboratory and inspection service approved by the Owner.

If the welder has not been engaged in the welding process for three or more months, requalify before permitting them to do structural welding work.

Manufacturer Qualifications:

Experience: Contractor supplier must be regularly engaged in the design and fabrication of aluminum gangway and boarding ramp structures and shall show proof of having five years of consecutive experience and successfully completed a minimum of ten similar projects within the last three years.

Qualification of Workers: Provide sufficient supervisors and skilled workers who shall be thoroughly familiar with the type of fabrication involved and the techniques required for the proper execution of the work.

Manufacturer's Instructions: Submit all manufacturers' manuals and maintenance literature to the Owner.

PRODUCTS

ALUMINUM STRUCTURES DESIGN CRITERIA

The following criteria shall be considered as minimum requirements. Overall design shall conform to IBC code requirements. Mere conformance to the minimum sizes, strengths and design parameters provided in this section and the Contract Drawings will not automatically

ensure approval of the final design. The proposed aluminum structures shall be subject to thorough engineering analysis using all relevant criteria in applicable IBC and local codes. The aluminum structures for this project shall conform to the following criteria:

The aluminum structures shall be designed to withstand the loading and motions without damage to allow for a minimum design life of 25 years.

The nominal aluminum structures dimensions are shown on the drawings. The aluminum structures shall be open top with no top cross members (3-sided).

Vertical Design Load: In addition to the dead weight of the structure (DL), the aluminum structures shall be designed to withstand the following vertical loads:

Uniform Live Load (ULL): 60 pounds per square foot of surface area.

Live Point Load (LPL): 400 pounds applied at any point on the surface. The point load should be assumed to act on a one (1) square foot area.

Uniform Snow Load (USL): 30 pounds per square foot of surface.

Load case (structural survivability): (DL + LL)

Load cases (boarding float design): (DL + LL) and (DL + USL)

Horizontal Design Load: In combination of the dead weight of the structure, the aluminum structures shall be designed to withstand the following horizontal loading conditions:

Uniform wind load of 141 mph, exposure "D" category winds.

Deflection: Maximum deflection under uniform live load plus dead load of $L/360$. Live load only maximum deflection of $L/500$.

Handrails: The handrails shall be designed in accordance with IBC requirements for a minimum of 200 lbs. of concentrated lateral load and 50 lbs./ft. of uniform live load.

Kick plate: Provide at base of each guardrail, 4 inches tall.

The deck and structural components shall be designed with a minimum safety factor on working stress as specified in AA "Specifications for Aluminum Structures" for bridge type structures. For non-aluminum structural components, similar safety factors shall apply.

Design shall consider construction and transportation stresses resulting from aluminum structures handling and installation.

The aluminum structures shall also be designed to withstand horizontal drift due to wind loads without structure interferences or overstress, including fatigue of aluminum structures members and supports.

Contractor shall provide drain holes at lower end of the gangway bottom chord for drainage.

MATERIALS

Materials shall meet the following requirements:

Structural Members: All aluminum used in the fabrication shall conform to Alloy 6061-T6 as applicable and welding in accordance with AWS D1.2.

Fasteners: Any fasteners between aluminum components shall be Type 316 stainless steel. Fasteners between any steel components and aluminum shall be Type 316 stainless steel.

Welds: Use a filler metal alloy for welds to produce a weld compatible with base structural metal for corrosion resistance in accordance with AWS D1.2. All connections to be welded shall be of new material, clean and free of any contaminants. All joints shall fit properly and be prepared for the appropriate weld as described in the shop drawings.

Polyethylene: Use UHMW PE for any skids, rollers, bushings, edge strips, dielectric isolators, and other non-metallic parts in gangway manufacture. UHMW PE parts shall be black in color and ultraviolet stabilized.

Dissimilar Metals: Where dissimilar metals are in contact, such as in steel to aluminum connections the surfaces shall be protected to prevent galvanic action. All bolted connections shall be isolated by using UHMW insulating washers, spacers, and nylon sleeves (ferrules) in the bolt holes to stop the bolts touching the aluminum. A non-conductive uncompressible spacer such as fiberglass shall be sandwiched between the two materials and sealed around the perimeter with a flexible sealant such as silicone.

Grating. The walking surface shall be provided with an aggressive high traction grit or non-skid aluminum grating surface. The deck bearing members shall run perpendicular to the long axis of the aluminum structures.

Guardrail: The aluminum structures shall meet guardrail requirements with openings in the aluminum structures that shall not permit passage of a 4-inch diameter sphere on each side of the walk surface. Aluminum handrails and kick plates shall be provided.

Handrails: The aluminum structures shall be fitted with a handrail on each side of the walking surface having the same length as the walking surface with a handrail extending a minimum of one (1) foot beyond the ends of the structures, with required return at the ends. The handrail shall be fabricated of aluminum with a 1-1/2 inch outside diameter and a smooth gripping surface. Handrail shall be designed to not allow for the collection of material including water and bird droppings between the aluminum structures frame and the handrail surface. Aluminum handrail configuration and dimension shall comply with IBC and OSHA requirements.

Transition and Toe Plates: The transition and toe plates shall make a smooth, gap-free transition between the aluminum structures deck and the offshore and onshore landings. The transition plate shall be a minimum 1/4 inch material and shall be attached to the aluminum structures by means of a continuous pipe hinge. The plate shall be the full width of the aluminum structures and have a maximum slope not in excess of the maximum slope that occurs on the aluminum structures itself. The sliding edge shall be fitted with a continuous UHMW PE wear block a

minimum of ½-inch thick, which shall be beveled conforming to code requirements for accessibility and safety. Transition plates shall have arc-sprayed “Thermion” Ceramic Core TH604 anti-skid aluminum garnet traction coating. The maximum slope for the transition plate shall not exceed 1:12 and 1:4 for the toe plate.

Rollers and Roller Guide Tracks: The boarding ramp shall be supplied with two solid UHMW PE rollers or UHMW PE skid shoes. Rollers shall have a solid stainless axle. Rollers, axles, and skid shoes shall be designed to accommodate all loads to ramps and any job specific requirements. Roller/skid shoe tracks shall be provided ready to install to the float surface. These guide tracks shall be long enough to allow for full longitudinal movement through all water elevation changes. The guide tracks shall restrict any lateral movement of the gangway and transfer ramp at the landing.

EXECUTION

FABRICATION AND WORKMANSHIP

The aluminum structures system including all hardware and accessories shall be designed, fabricated, and securely fastened to resist all conditions normally encountered within marinas for similar sized aluminum structures. All work shall conform to the approved shop drawings and Contract Documents. Fabrication details, finishing details and colors shall be consistent throughout. Work shall be accurately set to established lines and elevations, and securely fastened in place. Cutting, drilling and punching shall produce clean true lines and surfaces. Exposed surfaces of work shall have a smooth finish.

Design, fabrication, delivery, handling, and installation of the aluminum structures shall conform to the latest revisions of the aluminum construction manual and all applicable standards and data as described by the Aluminum Association. Fabricate aluminum structures in accordance with approved shop drawings. Edges shall be cut true, smooth, and free from burrs. Corner edges shall be ground smooth. Drill or punch all holes required for the attachment of other trades and for bolted connections. Weld splatters, burrs and weld flash shall be removed from all exposed surfaces.

Welding shall be done in accordance with AWS D1.2, including procedures for repair of defective welds. All welds shall be visually inspected by an independent testing company hired by the Contractor.

Items shall be shop fabricated to the extent practicable for transportation and handling. Splices shall be designed and detailed by the Contractor and submitted to the Owner for review.

Parts shall be match-marked to ensure accurate installation.

Aluminum items shall be fabricated in accordance with AA’s Design Manual specifications for aluminum structures and AWS 01.2-03, Structural Welding Code Aluminum.

Materials delivered and stored at the manufacturing facility shall be properly marked and inventoried on vertical racks located in a lockable heated warehouse.

Completed boarding ramp, transition plates, etc. shall be stored on dunnage or by other appropriate means to prevent direct contact with the ground and unnecessary damage. Completed aluminum structures shall bear an identification decal showing the date of manufacture, live load capacity, and identifying serial number. Every ramp shall be directly traceable to the manufacturer.

The Contractor shall establish lifting and handling methods to avoid damage to aluminum structures during storage, assembly, and transport as directed by the manufacturer.

Job files for each aluminum structures shall be kept, including all information including shop drawings, submittals, material purchase orders, as-built shop drawings, material certifications for all components, shipping information and any correspondence.

All inspection and testing required on the aluminum structures, the cost of welding procedures and welder certifications will be considered as included in the payment for this item, and no additional compensation will be allowed.

TRANSPORT, DELIVERY, & HANDLING

Handle aluminum structures by lifting points and methods as identified by the manufacturer. Use of alternate lifting points shall not be allowed.

Use all means necessary to protect the aluminum structures before, during, and after installation and to protect the installed work and materials of all other trades.

The Contractor shall assume full responsibility for any damages or losses resulting from the handling or transporting of the aluminum structures during loading, shipping, transport, and delivery to the Project Site, as well as the subsequent handling required on site for installation.

Damage that occurs during transport and delivery and/or during other handling operations prior to final inspection shall be repaired or replaced by the Contractor at the discretion of the Owner, and at no additional cost to the Owner.

All aluminum structures lifting operations shall be performed in accordance with the stamped lifting plan.

ASSEMBLY AND INSTALLATION

Construction methods and products not specifically mentioned in the Contract Documents shall be utilized using reasonable care and the highest quality construction practices. Final inspection and acceptance of all work and products not specifically mentioned in the Contract Documents shall be made by the Owner. Approval shall be based upon conformance to the Contract Documents, quality of workmanship, applicable industry standards, and pertinent manufacturer's recommendations.

The complete aluminum structures assembly shall be installed at the locations shown on the Contract Drawings. Alignment shall be straight and true.

The boarding ramp and hoist frame shall be installed on the dock and adjusted to allow the boarding ramp free movement to travel the full range of water levels without binding or stressing

the ramp or dock system. The boarding ramp roller guide tracks shall be adjusted to suit the full range of lateral movement of the rollers and shall be adequately secured to the dock surface in accordance with the gangway manufacturer recommendations.

The aluminum structures shall be installed to meet all ADA walking surface requirements including a maximum ½” gap and ¼” lip.

COORDINATION WITH OTHERS

The Contractor shall coordinate the design of the boarding ramp with the design of the dock system to ensure proper interaction between installed systems.

WARRANTY

The manufacturer shall provide a two-year written warranty that the aluminum structures and associated appurtenances furnished shall be free from defects in materials and workmanship and performance for a period of two (2) years following completion and acceptance by the Owner.

The two-year warranty period shall commence upon project completion and acceptance by the Owner.

SPARE PARTS

The Contractor shall provide spare parts required to accomplish supplier recommended maintenance for a full three-year period. For the purpose of providing this spare parts inventory, the Contractor shall assume normal wear and tear on the aluminum structures. Spare parts to be provided at a minimum include the following:

Four (4) replacement pulleys

Four (4) cables/chains.

One (1) on/off switch.

Measurement and Payment

Payment will be made under:

Pay Item	Unit
Aluminum Boarding Ramps and Hoist Frames	EA

EMERGENCY CABINET**General**

The work under this item shall consist of all labor, materials, tools and equipment necessary to furnish and install the Emergency Cabinet. The Emergency Cabinet shall comply with the following requirements:

- A. Shall be tested and certified to be in compliance with UL2017 entitled "alarm and emergency signaling equipment."
- B. If a laboratory other than U.L. is used that laboratory must certify, in writing, that the alarm and emergency signaling equipment has been tested and meets all of the requirements of ANSI/UL 2017.
- C. Shall be certified to meet all sections of NFPA 303 DTD "2011 Marinas and Boatyards."
- D. Shall have the capability to house either a 10 lb. or 20 lb. A, B, and C fire extinguisher.
- E. Shall have downward, indirect illumination indicating the device is functioning properly.

Products:**2.1 Type SM (Self-Monitoring) Emergency Signaling Device - General Specification**

- A. Main Housing:
 - a. The housing shall be constructed of 20 gauge, 316L low carbon stainless steel and shall be coated with UV-resistant polyester resin over a powder coating. It shall be UL listed as a type 3R weatherproof enclosure.
 - b. The housing shall have the capacity to house a 10 lb. or 20 lb. A, B, and C fire extinguisher.
- B. Access Door:
 - a. The access door shall be hinged with a stainless-steel latch.
 - b. The door shall have a clear access window made of engineered resin.
 - c. Access to the fire extinguisher shall not require breakage of any part of the unit.
- C. Lighting Assembly / Housing:
 - a. The lighting top housing shall be constructed of 1/8" thick injection molded heavy resin material and shall be coated with a water based acrylic polymer. It shall be UL listed as a type 3R weatherproof enclosure.
 - b. STANDARD - Each pedestal shall be equipped with a non-metered light. The lighting assembly shall include one LED compact fluorescent light, that is protected by a 0.5 amp, in-line fuse.
 - c. OPTION - Each pedestal shall be equipped with a non-metered LED light, that is protected by a 0.5 amp, in-line fuse. 14-watt light

- D. Wiring:
 - a. The alarm and emergency signaling device shall be completely pre-wired at the factory to the load side of the terminal strip.
 - b. All load copper wiring shall be of high stranding and tin plated to resist corrosion.
 - c. The maximum size of the line wiring shall be #6 AWG.
- E. Alarm System - Visual High-Intensity Strobe :
 - a. The audible alarm system shall have an output of 68 dBA, and a strobe light shall simultaneously activate to indicate the removal of the life ring and / or fire extinguisher.
- F. Grounding:
 - a. All exposed metallic parts must have an integral ground that is a part of the equipment grounding system.
- G. Fire Extinguisher:
 - a. Each cabinet shall be equipped with a 10 lb. or 20 lb. ABC fire extinguisher.
- H. Life Ring:
 - a. Each cabinet shall be equipped with a 30" life ring and provisions to sound an alarm system when the life ring is removed.

Measurement and Payment

Payment will be made under:

Pay Item	Unit
Emergency Cabinet	EA

ALUMINUM HANDRAILS AND RAILINGS**GENERAL**

Summary

A. This section includes furnishing and installing all Aluminum Handrails and Guardrails as indicated on Contract Drawings and includes Miscellaneous Aluminum Handrails and Guardrails not included in other sections of these specifications, such as Aluminum Pipe Railing Systems, Ornamental Railing Systems, or Glass Railing Systems.

System performance requirements

General: Engineer handrail and railing systems to withstand structural loads indicated and determine allowable design working stresses of railing materials based on the following:

For Aluminum: The Aluminum Association's specification for Aluminum Structures

Structural Performance of Handrails and Railing Systems:

Engineer, fabricate, and install handrails and railing systems to withstand the following structural loads without exceeding the allowable design working stress of the materials for handrails, railing systems, anchors, and connections. Apply each load to produce the maximum stress in each of the respective components comprising handrails and railing systems.

Top Rail of Guardrail Systems: Capable of withstanding the following loads applied as indicated:

Concentrated load of 200 lb applied at any point and in any direction.

Uniform load of 50 lb per linear ft. applied horizontally and concurrently with uniform load of 100 lb per linear ft. applied vertically downward.

Concentrated load need not be assumed to act concurrently with uniform loads.

Handrails Not Serving as Top Rails: Capable of withstanding the following loads applied as indicated:

Concentrated load of 200 lb applied at any point and in any direction.

Uniform load of 50 lb per linear ft. applied in any direction

Concentrated and uniform loads need not be assumed to act concurrently.

Infill Area of Guardrail Systems: Capable of withstanding a horizontal concentrated load of 200 lb applied to one sq. ft. at any point in the system.

Above load need not be assumed to act concurrently with loads on top rails of railing systems in determining stress on guard.

Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

Thermal Movements: Allow for thermal movement resulting from the following maximum change (range) in ambient temperature in the design, fabrication, and installation of handrails and railings to prevent buckling, opening up of joints, overstressing of components, connections and other detrimental effects. Base design calculation on actual surface temperatures of materials due to both solar heat gain and nighttime sky heat loss.

1. Temperature Change (Range): 100 deg F ambient; 150 deg F material surfaces.

SUBMITTALS

Product Data for each type of product specified.

Shop drawings showing Welding, Fabrication and Installation of handrails including all plans, typical elevations, sections, details of components, and attachment to other units of work.

Where installed products are indicated to comply with certain design loadings, include structural computations, material properties and other information needed for structural analysis review by the design architect and/or engineer of record.

Submit shop drawing product data. Also submit calculations if specifically requested by architect.

Samples for initial selection purposes in the form of manufacturers color chart showing full range of colors available from factories standards:

Submit at least 2'- 6" long samples of the top rail when its shape is other than standard rounds, squares or rectangles and when specifically requested by Engineer.

Quality assurance

Single Source Responsibility: Obtain handrails and railing systems from a single fabricator/manufacturer.

Engineering Responsibility: Engineer handrailing and railing systems by the fabricator/manufacturer unless sizes and configurations are specifically called out on architectural/engineering. drawings.

Storage

A. Store handrails and railing systems in clean, dry location, away from uncured concrete and masonry, protected against damage.

Project conditions

A. Field Measurements: Where handrails and railings are indicated to fit to other construction, check actual dimensions of other construction by accurate field

measurements before fabrication; show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of Work.

Products

Metals

A. Aluminum: Alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, with not less than the strength and durability properties of the alloy and temper designated below for each aluminum form required:

Structural extrusions such as posts shall be 6061-T6 or 6005-T5 Alloy/Temper.

All other extrusions such as Caps, Pickets, Mid and Bottom Rails shall be at least 6063-T5.

Castings: To be high quality prime material or materials remelted from prime extrusion

Grout and anchoring cement

Non-shrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with CE CRD-C 621. Provide grout specifically recommended by manufacturer for interior and exterior applications of type specified in this Special Provision.

Erosion-Resistant Anchoring Cement: Factory-prepackaged, non-shrink, nonstaining, high strength cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure or provide a sealer or waterproof coating recommended for exterior use by manufacturer to be applied by the installer or other qualified contractor or subcontractor.

WELDING MATERIALS, FASTENERS, AND ANCHORS

Welding Electrodes and Filler/Metal: Provide type and alloy of filler metal and electrodes as recommended by producer of metal to be welded and as required for color match, strength, and compatibility in fabricated items.

Fasteners for Anchoring Railings to Other Construction: Select fasteners of the type, grade, and class required to produce connections that are suitable for anchoring railing to other types of construction indicated and capable of withstanding design loadings.

1. For aluminum railings in coastal environments provide fasteners fabricated from stainless steel or aluminum only.

Fasteners for Interconnecting Railing Components: Use fasteners of same basic metal as the fastened metal, unless otherwise indicated. Do not use metals that are corrosive or incompatible with materials joined.

Fabrication

General: Fabricate handrails and railing systems to comply with requirements indicated for design, dimensions, details, finish, and member sizes, including wall thickness of hollow members, post spacings, and anchorage, but not less than those required to support structural loads.

Preassemble railing systems in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for field assembly and coordinated installation. Use connections that maintain structural value of joined pieces.

Assembly shall be in a neat workmanlike manner using M.I.G. or T.I.G. Welding Processes as required. Horizontal Channels shall be punched to receive pickets and welds in this application shall be concealed from view.

Channels to receive a snap cover only when specifically required and noted on drawings.

All Posts shall be structurally welded to Top Rail and Mid and Lower Horizontal Members to assure fixed fastening for the life of the rail.

Corners shall be hairline fitted by mitre and further welded as required to obtain maximum assurance of strength through the railing's useful life.

All splices shall be accomplished by butting one Top Rail to the next with a structural sleeve insert extending from one Top Rail to the next and further secured by means of a Stainless Steel, Aluminum or other proper screw or pop-rivet.

Note: Butt splices to be either hairline fitted or properly gapped to provide for proper expansion and contraction movement. For expansion joints be sure that only one side of the sleeve insert is fastened to the top rail.

End connections required to fasten to the building structure require either a welded end clip or a separate slide clip.

Provide weep holes when necessary to drain closed sections from pretreatment immersion and sprays also for moisture from condensation to escape.

Aluminum finishes

All aluminum railings to receive a baked-on painted finish over full pretreatment except when specified to be natural or mill finish or when anodizing is specified. Note: Anodizing is not recommended for welded railings due to the likelihood of discoloration from:

1. Dissimilar alloys
2. Dissimilar tempers
3. Oxidation

4. Welding Filler Metals
5. Weld heat zones
6. Marring caused during fabrication and handling

Pretreatment Process: A multi-stage pretreatment process is required prior to shop painting.

The railing shall be dipped or sprayed in a concentrated alkaline cleaner then rinsed in clear water. This process provides cleaning, degreasing and deep etching on the surface.

The product shall then be dipped or sprayed in a concentrated acidic treatment to deoxidize, desmut and neutralize the surface then rinsed in clear water.

The product shall then be dipped or sprayed in an acidic conversion coating to act as a bonding coating for paint adhesion.

The product must be completely dried before painting.

Painting

E.S.P. applied thermosetting T.G.I.C. polyester powder paint over pretreatment bond coating. Paint to be 1.5 to 2.0 mills. D.F.T. Paint shall be baked on at approx. 400° F for a minimum of 10 minutes duration. Specification.

Execution

Preparation

A. Coordinate setting drawings, diagrams, templates, instructions, and directions for installation of anchorages, such as sleeves, concrete inserts, anchor bolts, and miscellaneous items having integral anchors, that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to project site.

Installation general

Fit exposed connections accurately together to form tight, hairline joints, except as required for expansion.

Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installation of handrails and railings. Set handrails and railings accurately in location, alignment, and elevation, measured from established lines and levels and free from rack.

Set posts plumb within a tolerance of 1/16" to 1/2".

Align rails so that variations from level for horizontal members and from parallel with rake of steps and ramps for sloping members do not exceed 1/32" in 12".

Corrosion Protection: Coat concealed surfaces of aluminum that will come into contact with grout, concrete, masonry, wood, or dissimilar metals with a heavy coat of paint or epoxy.

Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing handrails and railings to in-place construction.

Anchoring posts

Anchor post in concrete by means of preset sleeves into concrete. After posts have been inserted into sleeves, fill space between post and sleeve solid with the following anchoring material, mixed and placed to comply with anchoring material manufacturer's directions.

Anchor posts in concrete by core drilling holes not less than 3" deep and 1" greater than outside diameter of post. Clean holes of all loose material, insert posts, and fill space between post and concrete with the following anchoring material, mixed and placed to comply with anchoring material manufacturer's directions.

Non-shrink, nonmetallic grout.

Non-shrink, nonmetallic grout or anchoring cement.

Leave anchoring material down approximately 1/2" to allow for final topping with a waterproof material matching the surrounding areas by others. Whenever possible fill hole with waterproof topping slightly higher than the adjacent surfaces and taper and taper away from the post leaning, protection and touch-up painting.

On delivery all railing will have protective cover over cap only. Immediately upon completion of installation of railing installer shall remove cap cover and clean all work for inspection and approval.

After installation the General Contractor or Owner shall be responsible for protecting the railings during the balance of construction.

Painted aluminum surfaces shall be cleaned with plain water containing a mild soap or detergent. No abrasive agents or harsh chemicals are to be used.

Note: All railings require periodic maintenance. All railing surfaces require periodic washing especially those subject to ocean salt air or harmful chemical environments. Waxing after washing is recommended.

Measurement and Payment

- A. The aluminum rail used in this project will be measured by linear feet (LF) . Such price and payment will be full compensation for supply, furnishing, placing, all labor, equipment, and incidentals necessary to complete the work satisfactorily.

Pay Item	Unit
Aluminum Railing	LF

ELECTRICAL WORK**Description**

The North Carolina Department of Transportation is planning to replace the existing Ferry Docks at the Hatteras Island and Ocracoke ferry terminals in North Carolina. Electrical work shall include demolition of existing electrical infrastructure required for demolition of the existing floating docks, installation of new electrical infrastructure to support new fix dock ferry operations and installation of new light poles.

These Special Provision and the Contract Drawings are intended to describe the installation of improvements to the existing electrical system at the Hatteras and Ocracoke ferry terminals. The work to be done under this Special Provision shall include the furnishing of all labor, equipment and materials required to provide a complete and working electrical system as shown on the Contract Drawings and as outlined in these Special Provision. The contract shall include all labor, materials, permits, etc. necessary for the completion of the work. All materials shall be new except as specifically noted and shall have Underwriter's Laboratory or other third-party agency approval or U.L. re-examination listing and shall be installed in accordance with best practices by experienced electricians.

The electrical construction drawings are diagrammatic in nature and are not intended to show all details of the work. The location of all conduit work is approximate, and the Electrical Contractor shall make any necessary changes in the location to avoid piers, beams, footings, plumbing, duct and other obstructions at no additional cost to the Owner.

The spirit as well as the letter of the Contract Drawings and Special Provision shall be followed and all work shall be executed according to the true intent and meaning of drawings and Special Provision, both of which are intended to include everything required for a complete electrical system.

The Electrical Contractor shall comply with all state and Underwriter's requirements, ordinances or rules governing work of the character including the current edition of the National Electrical Code and OSHA.

Should any error or omission exist in either or both of these Contract Drawings and Special Provision, or conflict between one with the other, the Contractor shall not avail himself of such unintentional error, omission or conflict, but shall have same explained and adjusted before signing the contract or proceeding with the work, otherwise, he shall at his expense supply the proper materials and labor to make good any damage to or defect in his work caused by such error, omission or conflict.

Everything necessary for the completion and successful operation of the work, whether or not here definitely specified or indicated on the drawings, shall be furnished and installed as well and faithfully as if so indicated and specified. Contractor shall acquire and pay for all fees and permits required by authorities.

Sample Materials

All materials, equipment and accessories entering the work area are subject to the approval or disapproval of the Engineer. No samples are required to be submitted with bid documents.

The samples required by the Engineer shall be submitted after the award of the contract and acceptance of the Contractor's bond. All samples shall be delivered to a location designated by the Engineer.

No inspection or test shall be made except upon formal notice to the Engineer from the Contractor by letter or email. Contractor shall furnish all labor and appliances for tests and shall meet all expenses of said test.

In all cases where devices or part of the equipment is herein referred to in the singular number, it is intended that such referral shall apply to as many devices as are required to complete the installation.

Inspection and Testing

The electrical system shall be installed in strict accordance with the regulations of the State Codes and ordinances. The final inspection and tests shall be made only after the Engineer is satisfied that the work described in this Special Provision has been completely installed in accordance with the spirit and intent of the Special Provision. The acceptance of the work shall not in any way prejudice the rights to demand the replacement of defective materials or workmanship. The Electrical Contractor shall furnish instruments, special apparatus, and expert service to make all necessary tests to show that the system is clear of improper grounds and short circuits and to demonstrate that the system has adequate capacity, quality, and completeness and is properly installed to meet all requirements of this Special Provision. Any defects identified shall be remedied without delay. Electrical Certificate shall be by the State Electrical Inspector for the applicable part of the project under their jurisdiction. Electrical contractor shall coordinate all state electrical inspections through the State Construction Office.

Measurement and Payment

Payment will be made under:

Pay Item	Pay Unit
Light Poles	Each
Light Fixture	Each
Electrical Work – Dock receptacles	Each
Electrical Work – Receptacle Cover	Each
Electrical Work – Underground Feeder Run w/ Excavation	Lump Sum
Electrical Work – 20 AMP Breaker	Each
Electrical Work – 15 AMP Breaker	Each
Electrical Work – 200 AMP Breaker	Each

ELECTRICAL RACEWAYS AND BOXES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to this Special Provision.

1.02 SUMMARY

- A. Section Includes:
 - 1. Metal conduits, tubing, and fittings.
 - 2. Nonmetal conduits, tubing, and fittings.
 - 3. Surface raceways.
 - 4. Handholes and boxes for exterior underground cabling.

1.03 DEFINITIONS

- A. CGRC: Coated Galvanized rigid steel conduit (PVC coated).
- B. PVC: Polyvinyl Chloride Conduit Schedule 80.
- C. LFC: Liquid tight Flexible Conduit.

1.04 ACTION SUBMITTALS

- A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.
- B. Shop Drawings: For custom enclosures and cabinets. Include plans, elevations, sections, and attachment details.

1.05 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Conduit routing plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of items involved:
 - 1. Structural members in paths of conduit groups with common supports.
- B. Seismic Qualification Certificates: For enclosures, cabinets, and conduit racks and their mounting provisions, include those for internal components, from manufacturer.

1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
4. Detailed description of conduit support devices and interconnections on which the certification is based and their installation requirements.

C. Source quality-control reports.

PART 2 – PRODUCTS

2.01 METAL CONDUITS, TUBING, AND FITTINGS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. AFC Cable Systems, Inc.
 2. Allied Tube & Conduit.
 3. Anamet Electrical, Inc.
 4. Electri-Flex Company.
 5. O-Z/Gedney.
 6. Picoma Industries.
 7. Republic Conduit.
 8. Robroy Industries.
 9. Southwire Company.
 10. Thomas & Betts Corporation.
 11. Western Tube and Conduit Corporation.
 12. Wheatland Tube Company.
 13. Carlon
 14. or Approved Equal.
- B. Listing and Labeling: Metal conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. CGRC: Comply with ANSI C80.1 and UL 6.
- D. PVC-Coated Rigid Conduit
1. Comply with NEMA RN 1.
 2. Coating Thickness: 0.040 inch (1 mm), minimum.
- E. LFMC: Flexible steel conduit with PVC jacket and complying with UL 360.

- F. Fittings for Metal Conduit: Comply with NEMA FB 1 and UL 514B.
 - 1. Conduit Fittings for Hazardous (Classified) Locations: Comply with UL 886 and NFPA 70.
 - 2. Fittings for EMT:
 - a. Material: Steel.
 - b. Type: compression.
 - 3. Expansion Fittings: PVC or steel to match conduit type, complying with UL 651, rated for environmental conditions where installed, and including flexible external bonding jumper.
 - 4. Coating for Fittings for PVC-Coated Conduit: Minimum thickness of 0.040 inch (1 mm), with overlapping sleeves protecting threaded joints.
- G. Joint Compound for CGRC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

2.02 NONMETALLIC CONDUITS, TUBING, AND FITTINGS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. AFC Cable Systems, Inc.
 - 2. Anamet Electrical, Inc.
 - 3. Arco Corporation.
 - 4. CANTEX Inc.
 - 5. CertainTeed Corporation.
 - 6. Condux International, Inc.
 - 7. Electri-Flex Company.
 - 8. Kraloy.
 - 9. Electrical Products.
 - 10. Niedax-Kleinhuis USA, Inc.
 - 11. RACO; Hubbell.
 - 12. Thomas & Betts Corporation.
 - 13. or Approved Equal.
- B. Listing and Labeling: Nonmetallic conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. See Evaluations for descriptions of nonmetallic conduit types.
- D. RNC: Type EPC-80-PVC, complying with NEMA TC 2 and UL 651 unless otherwise indicated.
- E. RTRC: Comply with UL 1684A and NEMA TC 14.

- F. Fittings for RNC: Comply with NEMA TC 3; match to conduit or tubing type and material.
- G. Fittings for LFNC: Comply with UL 514B.

2.03 BOXES, ENCLOSURES, AND CABINETS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. Adalet.
 2. Cooper Technologies Company; Cooper Crouse-Hinds.
 3. EGS/Appleton Electric.
 4. Erickson Electrical Equipment Company.
 5. FSR Inc.
 6. Hoffman.
 7. Hubbell Incorporated.
 8. Kraloy.
 9. Milbank Manufacturing Co.
 10. Mono-Systems, Inc.
 11. O-Z/Gedney.
 12. RACO; Hubbell.
 13. Robroy Industries.
 14. Spring City Electrical Manufacturing Company.
 15. Stahlin Non-Metallic Enclosures.
 16. Thomas & Betts Corporation.
 17. Wiremold / Legrand.
 18. or Approved Equal.
- B. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- C. Nonmetallic Outlet and Device Boxes: Comply with NEMA OS 2 and UL 514C.
- D. Luminaire Outlet Boxes: Nonadjustable, designed for attachment of luminaire weighing 50 lb (23 kg). Outlet boxes designed for attachment of luminaires weighing more than 50 lb (23 kg) shall be listed and marked for the maximum allowable weight.
- E. Device Box Dimensions: 4 inches square by 2-1/8 inches deep (100 mm square by 60 mm deep), unless otherwise noted.
- F. Gangable boxes are prohibited, unless specifically noted.

- G. Hinged-Cover Enclosures: Comply with UL 50 and NEMA 250, Type 4X Stainless Steel for outdoor locations, Type 12 for indoor locations, with continuous-hinge cover with flush latch unless otherwise indicated.
1. Nonmetallic Enclosures: Fiberglass.
 2. Interior Panels: Steel; all sides finished with manufacturer's standard enamel.
- H. Cabinets:
1. NEMA 250, Type 4X Stainless Steel for outdoor locations, Type 12 for indoor locations, with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
 2. Hinged door in front cover with flush latch and concealed hinge.
 3. Key latch to match panelboards.
 4. Metal barriers to separate wiring of different systems and voltage.
 5. Accessory feet where required for freestanding equipment.
 6. Nonmetallic cabinets shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.04 HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING

- A. General Requirements for Handholes and Boxes:
1. Boxes and handholes for use in underground systems shall be designed and identified as defined in NFPA 70, for intended location and application.
 2. Boxes installed in wet areas shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Polymer-Concrete Handholes and Boxes with Polymer-Concrete Cover: Molded of sand and aggregate, bound together with polymer resin, and reinforced with steel, fiberglass, or a combination of the two.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Armorcast Products Company.
 - b. Carson Industries LLC.
 - c. NewBasis.
 - d. Oldcastle Precast, Inc.
 - e. Quazite: Hubbell Power System, Inc.
 - f. Synertech Moulded Products.
 - g. Or approved equal.
 2. Standard: Comply with SCTE 77.
 3. Configuration: Designed for flush burial with open bottom unless otherwise indicated.
 4. Cover: Weatherproof, secured by tamper-resistant locking devices and having structural load rating consistent with enclosure and handhole location.

5. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
 6. Cover Legend: Molded lettering, as required to identify system indicated on the drawings.
 7. Conduit Entrance Provisions: Conduit-terminating fittings shall mate with entering ducts for secure, fixed installation in enclosure wall.
 8. Handholes 24-inches wide by 24-inches long by 24-inches deep and larger: Have inserts for cable racks and pulling-in irons installed before concrete is poured.
- C. Fiberglass Handholes and Boxes: Molded of fiberglass-reinforced polyester resin, with frame and covers of fiberglass unless otherwise noted.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Armorcast Products Company.
 - b. Carson Industries LLC.
 - c. NewBasis.
 - d. Nordic Fiberglass, Inc.
 - e. Oldcastle Precast, Inc; Christy Concrete Products.
 - f. Quazite: Hubbell Power System, Inc; Hubbell Power Systems.
 - g. Synertech Moulded Products.
 - h. Or Approved Equal.
 2. Standard: Comply with SCTE 77.
 3. Color of Frame and Cover: Gray.
 4. First option in "Configuration" Subparagraph below facilitates bottom conduit entry. Second option may be provided by a separate slab placed in the excavation under an open-bottom enclosure; third option is obtained by molding or fabricating the bottom integrally with the body of unit.
 5. Configuration: Designed for flush burial with open bottom unless otherwise indicated.
 6. Cover: Weatherproof, secured by tamper-resistant locking devices and having structural load rating consistent with enclosure and handhole location.
 7. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
 8. Cover Legend: Molded lettering, as required to identify system indicated on the drawings.
 9. Conduit Entrance Provisions: Conduit-terminating fittings shall mate with entering ducts for secure, fixed installation in enclosure wall.
 10. Handholes 24-inches long by 24-inches deep and larger: Have inserts for cable racks and pulling-in irons installed before concrete is poured.

2.05 SOURCE QUALITY CONTROL FOR UNDERGROUND ENCLOSURES

- A. Handhole and Pull-Box Prototype Test: Test prototypes of handholes and boxes for compliance with SCTE 77. Strength tests shall be for specified tier ratings of products supplied.
1. Tests of materials shall be performed by an independent testing agency.
 2. Strength tests of complete boxes and covers shall be by either an independent testing agency or manufacturer. A qualified registered professional Engineer in the State of North Carolina shall certify tests by manufacturer.
 3. Testing machine pressure gages shall have current calibration certification complying with ISO 9000 and ISO 10012 and traceable to NIST standards.

PART 3 – EXECUTION

3.01 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below unless otherwise indicated:
1. Concealed Conduit, Aboveground: RNC, Type EPC-80-PVC, unless otherwise indicated on drawings.
 2. Underground Conduit: RNC, Type EPC-80-PVC.
 3. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFC unless otherwise indicated on drawings.
 4. Connection between structures (Including between ground storage tanks and stair platforms): LFC unless otherwise indicated on drawings. Power level 120VAC and above LFC between rigid conduit sections or between rigid conduit and equipment shall have an insulated ground jumper installed between insulated ground bushings.
 5. Boxes and Enclosures, Aboveground: NEMA 250, Type 4X Stainless steel unless otherwise indicated on drawings.
- B. Minimum Raceway Size: 3/4-inch (21-mm) trade size.
- C. Raceway Fittings: Compatible with raceways and suitable for use and location.
1. PVC Externally Coated, Rigid Steel Conduits: Use only fittings listed for use with this type of conduit. Patch and seal all joints, nicks, and scrapes in PVC coating after installing conduits and fittings. Use sealant recommended by fitting manufacturer and apply in thickness and number of coats recommended by manufacturer.
 2. Flexible Conduit: Use only fittings listed for use with flexible conduit. Comply with NEMA FB 2.20. Insulated grounding bushings where applicable.

- D. Install nonferrous conduit or tubing for circuits operating above 60 Hz. Where aluminum raceways are installed for such circuits and pass through concrete, install in nonmetallic sleeve.
- E. Do not install aluminum conduits, boxes, or fittings in contact with concrete or earth.
- F. Install surface raceways only where indicated on Contract Drawings.
- G. Do not install nonmetallic conduit where ambient temperature exceeds 120 deg F (49 deg C).

3.02 INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Contract Drawings or in this article are stricter. Comply with NECA 102 for aluminum conduits. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- B. Keep raceways at least 6 inches (150 mm) away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- C. Complete raceway installation before starting conductor installation.
- D. Arrange stub-ups so curved portions of bends are not visible above finished slab.
- E. Install no more than the equivalent of three 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches (300 mm) of changes in direction.
- F. Support conduit within 12 inches (300 mm) of enclosures to which attached.
- G. Raceways Embedded in Slabs:
 - 1. Run conduit larger than 1-inch (27-mm) trade size, parallel or at right angles to main reinforcement. Where at right angles to reinforcement, place conduit close to slab support. Secure raceways to reinforcement at maximum 10-foot (3-m) intervals.
 - 2. Arrange raceways to cross building expansion joints at right angles with expansion fittings.
 - 3. Arrange raceways to keep a minimum of 3 inches of concrete cover in all directions.
 - 4. Do not embed thread less fittings in concrete unless specifically approved by Engineer for each specific location.
 - 5. Some authorities having jurisdiction may not permit nonmetallic tubing in fire-rated slabs in subparagraph below.
 - 6. Change from ENT to CGRC at the transition from horizontal to vertical before rising above floor.

- H. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- I. Coat field-cut threads on PVC-coated raceway with a corrosion-preventing conductive compound prior to assembly.
- J. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch (35mm) trade size and insulated throat metal bushings on 1-1/2-inch (41-mm) trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.
- K. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.
- L. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.
- M. Cut conduit perpendicular to the length. For conduits 2-inch (53-mm) trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.
- N. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire. Clean and cap underground raceways designated as spare above grade alongside raceways in use.
- O. Install raceway sealing fittings at accessible locations according to NFPA 70 and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings according to NFPA 70.
- P. Install devices to seal raceway interiors at accessible locations. Locate seals so no fittings or boxes are between the seal and the following changes of environments. Seal the interior of all raceways at the following points:
 - 1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
 - 2. Where an underground raceway enters a building or structure.
 - 3. Where otherwise required by NFPA 70.
- Q. Comply with manufacturer's written instructions for solvent welding RNC and fittings.
- R. Expansion-Joint Fittings:

1. Provide expansion joint fitting any time conduit systems cross building expansion joints or structural expansion joints.
 2. Provide expansion fittings as recommended by the manufacturer of the conduit.
 3. Provide expansion fittings per NFPA 70.
 4. Formula in first subparagraph below provides about 15 percent safety factor (extra expansion-contraction capability).
 5. Install each expansion-joint fitting with position, mounting, and piston setting selected according to manufacturer's written instructions for conditions at specific location at time of installation. Install conduit supports to allow for expansion movement.
- S. Flexible Conduit Connections: Comply with NEMA RV 3. Use a maximum of 72 inches (1830 mm) of flexible conduit for recessed and semi-recessed luminaires, equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
1. Use LFNC in damp or wet locations subject to severe physical damage.
 2. Use LFNC in damp or wet locations not subject to severe physical damage.
 3. Provide a separate ground jumper for all liquid tight flexible power level conduits runs utilizing insulated grounding bushings sized as follows:
 - a. ¾" to 1" conduit - #12 awg insulated ground.
 - b. 1 ¼" to 2" conduit - #8 awg insulated ground.
 - c. 2 ½" to 6" conduit - #4 awg insulated ground.
- T. Mount boxes at heights indicated on Contract Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to center of box unless otherwise indicated.
- U. Provide a flat surface for a raintight connection between boxes and cover plate or supported equipment and box.
- V. Horizontally separate boxes mounted on opposite sides of walls, so they are not in the same vertical channel.
- W. Locate boxes so that cover or plate will not span different building finishes.
- X. Support boxes of three gangs or more from more than one side by spanning two framing members or mounting on brackets specifically designed for the purpose.
- Y. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.
- Z. Set metal floor boxes level and flush with finished floor surface.
- AA. Set nonmetallic floor boxes level. Trim after installation to fit flush with finished floor surface.

3.03 INSTALLATION OF UNDERGROUND CONDUIT

A. Direct-Buried Conduit:

1. Excavate trench bottom to provide firm and uniform support for conduit.
2. After installing conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Firmly hand tamp backfill around conduit to provide maximum supporting strength. After placing controlled backfill to within 12 inches (300 mm) of finished grade, make final conduit connection at end of run and complete backfilling with normal compaction per 95 percent modified proctor density.
3. Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment and at building entrances through floor. Wrap conduit with 2 coats of 3M Scotch Wrap or Approved Equal.
 - a. Couple steel conduits to ducts with adapters designed for this purpose, and encase coupling with 3 inches (75 mm) of concrete for a minimum of 12 inches (300 mm) on each side of the coupling.
 - b. For stub-ups at equipment mounted on outdoor concrete bases and where conduits penetrate building foundations, extend steel conduit horizontally a minimum of 60 inches (1500 mm) from edge of foundation or equipment base. Install insulated grounding bushings on terminations at equipment.
4. Underground Warning Tape: Install directly above all buried conduit.

3.04 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

- #### A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies.

3.05 PROTECTION

- #### A. Protect coatings, finishes, and cabinets from damage and deterioration.
1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
 2. Repair damage to PVC coatings or paint finishes with matching touchup coating recommended by manufacturer.

Measurement and Payment

Payment will be made under:

Pay Item

12"x12"x6" Junction Boxes, Stainless Steel NEMA 4x

12"x12"x12" Heavy Duty ANSI Tier 15 Hand Hole

Unit

Each

Each

WATER BOX RELOCATION**Description**

The North Carolina Department of Transportation is planning to replace the existing Ferry Docks at the Hatteras Island and Ocracoke ferry terminals in North Carolina. At the Hatteras Island ferry terminal an existing Water Box shall be relocated to the new location shown in the Contract Drawings. The water box relocation work shall include relocation of existing items, whenever possible, and construction of new items as needed for relocation of the water box. Work related to new items to be provided include excavation and construction of new concrete footings, new wood posts to replace existing posts, water connection to the existing water supply line, extension of the water supply pipe to the new water box location, and new access stairs. Reconstruction of the new items shall be in kind.

Measurement and Payment

Payment will be made under:

Pay Item

Water Box Relocation

Unit

Lump Sum

Water Pipe Hold Downs Anchors

Description

Supply and install water pipe hold down in accordance with the Contract Drawings.

Measurement and Payment

Measurement will not be done for this item and work will be incidental to section 1510 Water Lines.

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.

<u>PERMIT</u>	<u>AUTHORITY GRANTING THE PERMIT</u>
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
State Dredge and Fill and/or CAMA	Division of Coastal Management, DEQ State of North Carolina
Special Use Permit	Cape Hatteras National Seashore

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.

County: DARE, HYDE

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	0000900000-N	SP	GENERIC MISCELLANEOUS ITEM DEMOLITION - HATTERAS AND OCRACOCKE (SILVER LAKE)	Lump Sum	L.S.	
0004	0000900000-N	SP	GENERIC MISCELLANEOUS ITEM ELECTRICAL WORK - UNDERGROUND FEEDER RUN W/ EXCAVATION	Lump Sum	L.S.	
0005	0000900000-N	SP	GENERIC MISCELLANEOUS ITEM REMOVE AND DISPOSE RAMP AT OCRACOCKE (SOUTH DOCK)	Lump Sum	L.S.	
0006	0000915000-N	SP	GENERIC MISCELLANEOUS ITEM ELECTRICAL WORK - 15 AMP BREAKER	2 EA		
0007	0000915000-N	SP	GENERIC MISCELLANEOUS ITEM ELECTRICAL WORK - 20 AMP BREAKER	8 EA		
0008	0000915000-N	SP	GENERIC MISCELLANEOUS ITEM ELECTRICAL WORK - 200 AMP BREAKER	1 EA		
0009	0000915000-N	SP	GENERIC MISCELLANEOUS ITEM ELECTRICAL WORK - DOCK RECEPTACLES	6 EA		
0010	0000915000-N	SP	GENERIC MISCELLANEOUS ITEM ELECTRICAL WORK - RECEPTACLE COVER	6 EA		
0011	0000915000-N	SP	GENERIC MISCELLANEOUS ITEM EMERGENCY CABINET	2 EA		
0012	0000920000-E	SP	GENERIC MISCELLANEOUS ITEM DREDGING - ALTERNATE 1	7,220 CY		
0013	0000920000-E	SP	GENERIC MISCELLANEOUS ITEM DREDGING - BASE BID	1,890 CY		
0014	5200000000-E	1410	** #10 W/G FEEDER CIRCUIT IN ***** CONDUIT (3, 1")	550 LF		
0015	5230000000-E	1410	***** FEEDER CIRCUIT IN ** CONDUIT (3, #12, 1")	650 LF		

County: DARE, HYDE

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0016	5270000000-N	SP	GENERIC LIGHTING ITEM 12"x12" x12" HEAVY DUTY ANSI TIER 15 HAND HOLE	2 EA		
0017	5270000000-N	SP	GENERIC LIGHTING ITEM 12"x12"x6" JUNCTION BOXES, STAINLESS STEEL NEMA 4X	5 EA		
0018	5270000000-N	SP	GENERIC LIGHTING ITEM LIGHT FIXTURE	7 EA		
0019	5270000000-N	SP	GENERIC LIGHTING ITEM LIGHT POLES	7 EA		
0020	5889000000-E	1510	GENERIC UTILITY ITEM 2" 304SS NPT	66 LF		
0021	5890000000-N	1510	GENERIC UTILITY ITEM 3/4" 304SS HOSE BIBB	1 EA		
0022	5912000000-N	SP	GENERIC UTILITY ITEM WATER BOX RELOCATION	Lump Sum	L.S.	
0023	6000000000-E	1605	TEMPORARY SILT FENCE	270 LF		
0024	6117500000-N	SP	CONCRETE WASHOUT STRUCTURE	2 EA		
0025	6133000000-N	SP	GENERIC EROSION CONTROL ITEM TURBIDITY CONTROL AND MONITORING	Lump Sum	L.S.	
0026	6141000000-E	SP	GENERIC EROSION CONTROL ITEM TURBIDITY BARRIER DREDGING (BASIN WORK)	830 SY		
0027	6141000000-E	SP	GENERIC EROSION CONTROL ITEM TURBIDITY BARRIER DREDGING (DREDGING ALT. 1)	420 SY		
0028	6141000000-E	SP	GENERIC EROSION CONTROL ITEM TURBIDITY BARRIER DREDGING (DREDGING BASE BID)	565 SY		
STRUCTURE ITEMS						
0029	8070000000-E	410	FOUNDATION EXCAVATION (BRIDGE)	24 CY		
0030	8175000000-E	420	CLASS AA CONCRETE (BRIDGE) CONCRETE FOOTING & RAMP	27 CY		

County: DARE, HYDE

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0031	8322000000-E	SP	TREATED TIMBER PILES 4 PILE CLUSTER TIMBER DOLPHIN	2,834 LF		
0032	8322000000-E	SP	TREATED TIMBER PILES TREATED TIMBER DOCK PILES	1,560 LF		
0033	8328200000-E	450	PILE DRIVING EQUIPMENT SETUP FOR *** STEEL PILES (24")	34 EA		
0034	8867000000-E	SP	GENERIC STRUCTURE ITEM 24" STEEL FENDER PIPE PILES	2,616 LF		
0035	8867000000-E	SP	GENERIC STRUCTURE ITEM ALUMINUM RAILING	330 LF		
0036	8892000000-E	SP	GENERIC STRUCTURE ITEM COMPOSITE DECKING	1,978 SF		
0037	8892000000-E	SP	GENERIC STRUCTURE ITEM WOOD DOCK	1,978 SF		
0038	8897000000-N	SP	GENERIC STRUCTURE ITEM ALUMINUM BOARDING RAMPS AND HOIST FRAMES	4 EA		
0039	8897000000-N	SP	GENERIC STRUCTURE ITEM METAL FABRICATIONS (MOORING CLEATS)	34 EA		
0040	8897000000-N	SP	GENERIC STRUCTURE ITEM RUBBER FENDER	34 EA		

1141/Mar12/Q23970/D189311230000/E40

Total Amount Of Bid For Entire Project :

Execution of Contract

Contract No: DA00645

County: Dare and Hyde Counties

ACCEPTED BY THE DEPARTMENT

Contract Officer

Date

Signature Sheet (Bid) - ACCEPTANCE SHEET