

ABERDEEN & ROCKFISH RAILROAD COMPANY - RAILROAD SPECIAL PROVISIONSNOTICE TO THE RAILROAD COMPANY OF START OF WORK:

The Contractor shall notify Aberdeen & Rockfish Railroad Company (A&R) herein called the Railroad Company, at least thirty (30) days in advance of the date on which he expects to start work on the railroad right-of-way. A written notice is required. No work shall commence on A&R right-of-way until the Railroad Company has received and approved the Contractor's insurance policy.

RELOCATION OF WIRE LINES:

Any temporary or permanent changes in wire lines necessitated by the construction of the project will be made by others without cost to the Contractor. However, the Contractor will be required to bear the cost of any changes that are made at his request solely for his convenience in the conduct of his operations.

DELAYS CAUSED BY OPERATIONS OF OTHERS:

The Contractor's attention is called to the fact that neither the North Carolina Department of Transportation, herein called the Department of Transportation, nor the Railroad Company assumes any responsibility for any work performed by others in connection with the construction of the project, and the Contractor shall have no claim whatsoever against the Department of Transportation or the Railroad Company for any inconvenience, delay, or additional cost incurred by him on account of such operations by others.

COOPERATION WITH OTHERS:

The Contractor shall cooperate with others participating in the construction of the project to the end that all work may be carried on to the best advantage.

AUTHORITY OF RAILROAD ENGINEER:

The authorized representative of the Railroad Company hereinafter referred to as Railroad Engineer, shall have the final authority in all matters affecting the safe maintenance of railroad traffic of his company.

CONSTRUCTION CORRESPONDENCE AND SUBMITTALS:

Initially, direct all correspondence to:

Mr. Garland Horton  
President  
Aberdeen and Rockfish Railroad Company  
101 E. Main St.  
P.O. Box 917  
Aberdeen, NC 28315

All required construction submittals shall be forwarded to and approved in writing by the Railroad Company prior to proceeding with construction of each applicable phase. Thirty (30) days will be required to review all construction submittals. An additional thirty (30) day will be required to review any subsequent submissions returned not approved.

EMERGENCY ACTION PLAN:

The Contractor shall develop and submit an emergency action plan indicating the location of the site, contact names and phone numbers, access to the site, instructions for emergency response, and location of the nearest hospitals. The plan shall also cover the Contractor's means of fire suppression that may include the phone number and location of the nearest fire department. The plan shall cover all items required in the event of an emergency at the site.

CONSTRUCTION SCHEDULE:

The Contractor shall prepare and submit a detailed construction schedule for the duration of the project clearly indicating the time periods while working on and around A&R right-of-way.

INTERFERENCE WITH RAILROAD OPERATIONS:

The Contractor shall so arrange and conduct his work that there will be no interference with railroad operations, including train, signal, telephone and telegraphic services, or damage to the property of the Railroad Company or to the poles, wire, and other facilities of tenants on the rights-of-way of the Railroad Company. Wherever work is liable to affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad Engineer for approval, but such approval shall not relieve the Contractor from liability.

Should conditions arising from or in connection with the work, require that immediate and unusual provisions be made to protect train operations and property of the Railroad Company, it shall be a part of the required services by the Contractor to make such provisions and if, in the judgement of the Railroad Engineer such provisions is insufficient, the Railroad Engineer or the Highway Engineer, may at the expense of the Contractor, require or provide such provisions as may be deemed necessary.

The Contractor will not be permitted to provide less than the following temporary clearances during construction of the proposed overhead bridge:

15'-0" horizontal clearance measured to track from centerline of track to falsework.

22'-0" vertical clearance from top of rail to falsework.

STRUCTURE EXCAVATION AND SHORING:

The Contractor shall furnish evidence to the Department of Transportation and the Railroad Company that, upon starting construction of the proposed grade separation structure, he shall expedite the excavation and bridge work continuously and diligently to completion.

The Contractor will be required to take special precaution and care in connection with excavating and shoring pits, and in driving piles, for highway bridge footings adjacent to track to provide adequate lateral support for the track and loads which it carries without disturbance of track alignment and service, and to avoid obstructing track clearances with working equipment, tools or other material. The procedure for doing such work, including need of and plans for shoring, shall first be approved by the Railroad, but such approval shall not relieve the contractor from liability.

Shoring or sheeting protection shall be provided when excavating adjacent to an active railroad track, except as noted below.

Shoring will not be required if both the following conditions are satisfied:

1. Excavation does not encroach upon a 1½ horizontal: 1 vertical theoretical slope line starting 1'-6" below top of rail and at 12'-0" minimum from centerline of the track.
2. Track is on level ground or in a cut section and on stable soil.

When track is on embankment, excavating the toe of embankment without shoring may affect the stability of the embankment. Therefore, excavation of embankment toe without shoring will not be permitted.

Preferred protection is the cofferdam type that completely encloses the excavation. Where dictated by conditions, partial cofferdams with open sides away from the track may be used. Cofferdams shall be constructed using steel sheet piling or steel soldier beams with timber lagging. Wales and struts shall be provided as needed. The following shall be considered when designing cofferdams:

- a. Sheeting shall be designed to resist a vertical live load surcharge of 1800 lbs per square foot, in addition to active earth pressure. The surcharge shall be assumed to act on a continuous strip, 8'-6" wide. Lateral pressures due to surcharge shall be computed using the strip load formula shown in A.R.E.M.A. specifications, Chapter 8, Part 20.
- b. Allowable stresses in materials shall be in accordance with A.R.E.M.A. Specifications, Chapter 7, 8, and 15.
- c. A construction procedure for temporary shoring shall be shown on the drawing.
- d. Safety railing shall be installed when temporary shoring is within 12 feet of track.
- e. A minimum distance of 10 feet from centerline of the track to face of sheeting shall be maintained.

The Contractor shall submit the following drawings and calculations for Railroad review and approval.

1. Three (3) sets of detailed drawings of the shoring systems showing sizes of all structural members, details of connections, and distances from centerline of track to face of shoring. Drawing shall show a section showing height of sheeting and track elevation in relation to bottom of excavation.

The subgrade of an operated track shall be maintained with edge of berm at least 10' from centerline of track and not more than 24" below top of rail. Unless so indicated on the plans the Contractor will not be required to make the existing section meet this specification and if substandard, the existing section will be maintained.

#### DEMOLITION OF EXISTING STRUCTURE:

Railroad tracks shall be protected from damage during demolition of existing structure or replacement of deck slab.

During demolition of the deck, a protection shield shall be erected over the track to catch falling debris. The protection shield shall be supported from girders or beams and shall not be lower than allowed temporary clearance. The deck shall be removed by cutting it in sections and lifting out. All cranes and hardware used in picks is to account for a 150% Factor of Safety. Factor of safety implied in crane charts is not to be considered in determination of lifting capacity. Large pieces of deck shall not be allowed to fall on protection shield.

Blasting will not be permitted to demolish a structure over or within railroad right-of-way.

The Contractor shall submit detailed demolition plans, including protection shield details to the Railroad Engineer for approval prior to the start of demolition. The plans shall also indicate the location and capacity of the proposed cranes and estimated lifting loads. The plans shall be prepared by a North Carolina Registered Professional Engineer and shall bear his seal and signature.

#### BLASTING:

Explosives shall not be used adjacent to any track or other railroad property without the advance approval of the Highway Engineer and the Railroad Engineer, but such approval will not relieve the Contractor of any liability. If use of explosives is permitted, the blasting shall be done with light charges under the direct experienced supervision of a responsible officer or employee of the Contractor, or of the Department of Transportation. Electric detonating fuses or charges shall not be used on account of possible premature explosions resulting from operation of 2-way train radios. Every precaution shall be taken to avoid damage to property, injury to persons and interruption of railroad operations.

No blasting shall be done without an authorized Railroad representative present, who will determine the approximate location of trains in order that the Contractor can be certain whether or not sufficient time will be available for blasting and subsequent cleanup without delaying trains. The Contractor shall notify the Railroad Engineer at least 10 days in advance of blasting to permit arrangement for the presence of an authorized Railroad representative and such flagging service as may be deemed necessary.

The Contractor shall have adequate equipment, labor, and materials at the job site and provide sufficient time to clean up the debris resulting from the blasting without delay to trains. He will at his expense correct any track misalignment or other damage to railroad property resulting from the blasting as directed by the Railroad Engineer. If his actions result in delays to trains, the Contractor shall bear the entire cost thereof.

Blasting shall be discontinued immediately upon notice by the Railroad Engineer or the Highway Engineer that it is too hazardous.

#### STORAGE OF MATERIALS:

Materials and equipment shall not be stored where they will interfere with railroad operations, nor on the rights-of-way of the Railroad Company without first having obtained permission from the Railroad Engineer, and such permission will be with the understanding that the Railroad Company will not be liable for damage to such material and equipment from any cause and that the Railroad Engineer may move or require the Contractor to move, at the Contractor's expense, such material and equipment.

#### DAMAGES:

The Contractor shall assume all liability for any and all damages to his work, employees, servants, equipment and materials caused by railroad traffic.

#### MAINTENANCE OF DITCHES ADJACENT TO RAILROAD TRACKS:

The Contractor shall submit plans indicating the proposed methods of erosion control during construction, in particular, excavation for the piers and grading.

The Contractor shall exercise necessary precautions to prevent fouling of track ballast and existing ditches in the excavation of material at the proposed structure site. He shall maintain the existing railroad ditches free from obstruction and silt through the duration of his construction operations and upon completion of the structure shall leave the ditches in conditions satisfactory to the Railroad Engineer.

Should material from excavating at the proposed structure site foul the track ballast, the Contractor will be required to clean or replace the fouled ballast under the direction of and to the satisfaction of the Railroad Engineer.

Any cost incurred by the Railroad Company for repairing damage to its property or to property of its tenants, caused by or resulting from the operations of the Contractor, shall be paid by the Contractor to the Railroad Company.

**TEMPORARY RAILROAD GRADE CROSSINGS:**

Where the plans show or imply that equipment or materials of any nature must be transported across a Railroad, unless the Department of Transportation has included arrangements for such crossings in its agreement with the Railroad, the Contractor will be required to first obtain authority for its installation, maintenance, and removal from the Railroad Engineer. The Contractor shall execute A&R Railroad's standard private road crossing agreement. Railroad Forces will do all work within two feet of the rail and the Contractor will pay all cost associated with the installation, maintenance and removal of the temporary grade crossing. The Contractor shall arrange for any resulting necessity of watching and flagging and to furnish the Railroad Company with a separate Railroad Protective Liability Policy other than the one required by these special provisions. All the above shall be at no cost to the Department of Transportation.

In the event the Department of Transportation has made arrangements for the Temporary Grade Crossings, the Contractor will need to have a railroad flagman on site during any use of the crossing and the crossings must be physically barricaded during such times that it is not required for use. The Contractor shall construct the road and approaches such that it does not interrupt existing drainage patterns and to the satisfaction of the Railroad. Flagman must be on site for construction and the roadway must be removed upon completion of the project. The Contractor shall restore the property including any drainage ditches. The Contractor's attention is called to the fact that he will not be required to bear the cost of the flagging services required by the Railroad Company or provide any additional railroad insurance except that required by the Insurance Special Provision.

**ERECTION PROCEDURE:**

The Contractor shall submit a detailed procedure for erecting the spans over railroad tracks. Equipment used for the erection, or removal of structures over railroad facilities, shall have a minimum lifting capacity of one hundred-fifty percent (150%). Factor of safety implied in crane charts is not to be considered in determination of lifting capacity. The procedure shall indicate the capacity of cranes, location of cranes with respect to the tracks and estimated lifting loads. The erection procedure must follow CSX Construction Guidelines and be prepared by a North Carolina Registered Professional Engineer and shall bear his seal and signature. The procedure must be approved by the Railroad.

**FLAGGING PROTECTION OR WATCHMAN SERVICE:**

The watchman and flagging service required by the Railroad Company for the safety of railroad operations because of work performed by the Contractor or subcontractors in connection with the construction of the proposed overhead bridge will be provided by A&R Railroad and the Contractor's special attention is called to the fact that he will not be required to bear the cost of any watchman or flagging service required by A&R Railroad, other than that required at any temporary grade crossing, as the Railroad Company will be reimbursed by the Department of Transportation on bills rendered monthly. All bills to be prepared in accordance with the Federal-Aid Policy Guide 23 CFR 646B.

When the Contractor's men or equipment are working within eighteen (18) feet of the nearest rail, over, under or adjacent to the track over which trains are operated, or when work is being performed adjacent to an operated track which may present a hazard to train operations, or when equipment is being used which does, or may infringe on such limits, and at other times, when in the opinion of the Railroad Engineer such protection is necessary, the services of a man or men will be used for flagman or watchman service.

The Contractor shall give 10 days advance notice to the Railroad Engineer in order that flagging service can be arranged and provided. No work shall be undertaken until the flagman, or flagmen, are at the job site. The estimated number and classification of men are shown in the Force Account Estimate.

The estimated cost of Flagging Protection or Watchman Service is shown in the Force Account Estimates prepared by A&R Railroad, and made a part of the Plans, Specifications and Estimate.

If the Railroad Company for any reason finds it necessary to furnish a watchman or flagman of a different classification from that shown in the Force Account Estimate, bills will be rendered and shall be paid on the basis of the rate of pay for the men used whether that is above or below the rate given. If the rate of pay of any employee that is to be used for watchman or flagging service is changed before the work is started or during the progress of the work, either by law or agreement between the Railroad Company and its employees, or if the tax rates on labor are changed, bills will be rendered by the Railroad Company and paid by the Department of Transportation on the new rates.

The Contractor's attention is also called to the fact that he will be required to carry on his operations which require flagging protection or watchman service in such a manner and sequence that the cost of such will be as economical as possible.

#### COMPLETION AND ACCEPTANCE OF WORK:

Upon completion of the work, the Contractor shall remove from within the limits of the railroad right of way all machinery, equipment, surplus materials, rubbish or temporary buildings of the Contractor, and leave said rights-of-way in a neat and orderly condition. After the final inspection has been made and work found to be completed in a satisfactory manner acceptable to the Department of Transportation and the Railroad Company, the Department of Transportation will be notified of the Railroad Company's acceptance in writing by the Railroad Engineer within ten (10) days or as soon thereafter as practicable.

INSURANCE SPECIAL PROVISIONS FOR  
ABERDEEN AND ROCKFISH RAILROAD COMPANY

STRUCTURE

WBS 17BP.8.P.1

Hoke County

A. In addition to any other forms of insurance or bonds required elsewhere in the contract documents, the Contractor will be required to provide coverage conforming to the requirements of the Federal-Aid Policy Guide outlined under 23 CFR 646A for all work to be performed on Railroad right(s)-of-way under the terms of the contract by carrying insurance of the following kinds:

1. CONTRACTOR'S COMMERCIAL GENERAL LIABILITY INSURANCE:

a. The Contractor shall furnish an original and one copy of the certificates of insurance and one certified copy of the policy to the Department of Transportation as evidence that, with respect to the operations he performs on railroad right-of-way, he carries Commercial General Liability Insurance including "XCU" coverage providing for limits of liability as follows:

<u>COVERAGE</u>	<u>MINIMUM COMBINED LIMITS OF LIABILITY</u>
Bodily Injury Liability	\$ 5,000,000 Per Occurrence
Property Damage Liability	\$ 5,000,000 Aggregate

b. If any part of the work is sublet, similar insurance and evidence thereof in the same amounts as required of the Prime Contractor, shall be provided by the subcontractor to cover his operations on railroad right-of-way. As an alternative, the Prime Contractor may provide insurance for the subcontractor by means of separate and individual policies.

c. Certificates of Insurance holders are to be sent to the addressees given below. Certificates shall make reference to the project, milepost and county.

NCDOT Rail Division  
Engineering & Safety Branch  
c/o State Railroad Agent  
1556 Mail Service Center  
Raleigh, N.C. 27699-1556

A&R Railroad Company  
Mr. Garland Horton  
President  
101 E. Main St.  
P.O. Box 917  
Aberdeen, NC 28315



2. RAILROAD PROTECTIVE LIABILITY INSURANCE:

- a. The Contractor shall furnish to the Department of Transportation an original and one duplicate of the Railroad Protective Liability Insurance Policy with limits of liability as follows:

<u>COVERAGE</u>	<u>MINIMUM COMBINED LIMITS OF LIABILITY</u>
Bodily Injury Liability	\$5,000,000 Per Occurrence
Property Damage Liability	\$10,000,000 Aggregate Per Annual Policy Period
Physical Damage to Property	

- b. The Railroad Protective Liability Policy is to be written on the ISO/RIMA Form No. CG 00 35 10 93 (or updates thereof) including Endorsements CG 28 31 11 85 and IL 00 21 or their equivalents.
- c. The insurer must be financially stable and rated A- or better in A.M. Best & Company's Insurance Reports.
- d. The name and address of Contractor and Department of Transportation must be shown on the Declarations page.
- e. The named insured, description of the work and designation of the job site to be shown on the Policy are as follows:

Named Insured:           Aberdeen and Rockfish Railroad Company  
                                   101 E. Main St.  
                                   P.O. Box 917  
                                   Aberdeen, NC 28315

Description and Designation: Cleaning and painting of steel girders on Bridge No. 3 on US 401 over SR 1313 and NC 211 and the tracks of Aberdeen and Rockfish Railroad Company in Hoke County, North Carolina near Railroad Milepost ML-16.65 identified as State Project WBS 17BP.8.P.1

- B. The Railroad Protective Liability Policy shall contain a clause requiring that sixty (60) days written notice be given the Department of Transportation and the Railroad Company prior to cancellation or change.

All other policies and certificates shall contain a clause requiring that thirty (30) days written notice be given to the Department of Transportation and the Railroad Company

prior to cancellation or change. The notices shall make reference to the project, milepost and county.

NOTICE TO:

Mr. Garland Horton  
President  
Aberdeen and Rockfish Railroad Co.  
101 E. Main St.  
P.O. Box 917  
Aberdeen, NC 28315

COPY NOTICE TO:

NCDOT Rail Division  
Engineering & Safety Branch  
c/o State Railroad Agent  
1556 Mail Service Center  
Raleigh, N. C. 27699-1556

- C. All insurance herein before specified shall be carried until the final inspection and acceptance of the project, or that portion of the project within railroad right-of-way, by the Department of Transportation or, in the case of subcontractors, until the Contractor furnishes a letter to the Engineer stating that the subcontractor has completed his subcontracted work within railroad right-of-way to the satisfaction of the Contractor and that the Contractor will accomplish any additional work necessary on railroad right-of-way with his own forces. It is understood that the amounts specified are minimum amounts and that the Contractor may carry insurance in larger amounts if he so desires. As to "aggregate limits", if the insurer establishes loss reserves equal to or in excess of the aggregate limit specified in any of the required insurance policies, Contractor shall immediately notify the Department of Transportation and shall cease all operations until the aggregate limit is reinstated. If the insurer establishes loss reserves equal to or in excess of one-half of the aggregate limit, Contractor shall arrange to restore the aggregate limit to at least the minimum amount stated in these requirements. Any insurance policies and certificates taken out and furnished due to these requirements shall be approved by the Department of Transportation and the Railroad Company as to form and amount prior to beginning work on railroad right-of-way.

No extra allowance will be made for the insurance required hereunder; the entire cost of same is to be included in the unit contract price bids for the several pay items.

- D. Evidence of insurance as required above shall be furnished for review to the Department of Transportation at the address shown below after which it will be forwarded by the Department of Transportation to the Railroad.

Send to Department:

NCDOT Rail Division  
Engineering & Safety Branch  
c/o State Railroad Agent  
1556 Mail Service Center  
Raleigh, NC 27699-1556

**RAILROAD SITE DATA:**

Number of Trains per day: <1 per day

Train Speed: 25 mph

CSX TRANSPORTATION, INC. - RAILROAD SPECIAL PROVISIONSNOTICE TO THE RAILROAD COMPANY OF START OF WORK:

The Contractor shall notify CSX Transportation, Inc., herein called the Railroad Company, at least thirty (30) days in advance of the date on which he expects to start work on the railroad right-of-way. A written notice is required. No work shall commence on CSXT right-of-way until the Railroad Company has received and approved the Contractor's insurance policy.

RELOCATION OF WIRE LINES:

Any temporary or permanent changes in wire lines necessitated by the construction of the project will be made by others without cost to the Contractor. However, the Contractor will be required to bear the cost of any changes that are made at his request solely for his convenience in the conduct of his operations.

DELAYS CAUSED BY OPERATIONS OF OTHERS:

The Contractor's attention is called to the fact that neither the North Carolina Department of Transportation, herein called the Department of Transportation, nor the Railroad Company assumes any responsibility for any work performed by others in connection with the construction of the project, and the Contractor shall have no claim whatsoever against the Department of Transportation or the Railroad Company for any inconvenience, delay, or additional cost incurred by him on account of such operations by others.

COOPERATION WITH OTHERS:

The Contractor shall cooperate with others participating in the construction of the project to the end that all work may be carried on to the best advantage.

AUTHORITY OF RAILROAD ENGINEER:

The authorized representative of the Railroad Company hereinafter referred to as Railroad Engineer, shall have the final authority in all matters affecting the safe maintenance of railroad traffic of his company.

CONSTRUCTION CORRESPONDENCE AND SUBMITTALS:

Initially, direct all construction related correspondence to the Philadelphia AECOM office, CSXT's General Engineering Contractor. The Philadelphia office address is:

Mr. Brian V. Harrison, PE  
AECOM  
1700 Market Street  
Suite 1600  
Philadelphia, PA 19103

And a copy to:

Clyde Gray  
CSX Transportation  
1610 Forest Avenue  
Suite 120  
Richmond, VA 23229

All required construction submittals shall be forwarded to and approved in writing by the Railroad Company prior to proceeding with construction of each applicable phase. Thirty (30) days will be required to review all construction submittals. An additional thirty (30) day will be required to review any subsequent submissions returned not approved.

EMERGENCY ACTION PLAN:

The Contractor shall develop and submit an emergency action plan indicating the location of the site, contact names and phone numbers, access to the site, instructions for emergency response, and location of the nearest hospitals. The plan shall also cover the Contractor's means of fire suppression that may include the phone number and location of the nearest fire department. The plan shall cover all items required in the event of an emergency at the site.

CONSTRUCTION SCHEDULE:

The Contractor shall prepare and submit a detailed construction schedule for the duration of the project clearly indicating the time periods while working on and around CSXT right-of-way.

INTERFERENCE WITH RAILROAD OPERATIONS:

The Contractor shall so arrange and conduct his work that there will be no interference with railroad operations, including train, signal, telephone and telegraphic services, or damage to the property of the Railroad Company or to the poles, wire, and other facilities of tenants on the rights-of-way of the Railroad Company. Wherever work is liable to affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad Engineer for approval, but such approval shall not relieve the Contractor from liability.

Should conditions arising from or in connection with the work, require that immediate and unusual provisions be made to protect train operations and property of the Railroad Company, it shall be a part of the required services by the Contractor to make such provisions and if, in the judgement of the Railroad Engineer such provisions is insufficient, the Railroad Engineer or the Highway Engineer, may at the expense of the Contractor, require or provide such provisions as may be deemed necessary.

The Contractor will not be permitted to provide less than the following temporary clearances during construction of the proposed overhead bridge:

15'-0" horizontal clearance measured to track from centerline of track to falsework.

23'-0", or no less than existing vertical clearance from top of rail to falsework. Any temporary reduction in vertical clearance must be requested in writing for further review and approval by the Railroad.

STRUCTURE EXCAVATION AND SHORING:

The Contractor shall furnish evidence to the Department of Transportation and the Railroad Company that, upon starting construction of the proposed grade separation structure, he shall expedite the excavation and bridge work continuously and diligently to completion.

The Contractor will be required to take special precaution and care in connection with excavating and shoring pits, and in driving piles, for highway bridge footings adjacent to track to provide adequate lateral support for the track and loads which it carries without disturbance of track alignment and service, and to avoid obstructing track clearances with working equipment, tools or other material. The procedure for doing such work, including need of and plans for shoring, shall first be approved by the Railroad, but such approval shall not relieve the contractor from liability.

Shoring or sheeting protection shall be provided when excavating adjacent to an active railroad track, except as noted below.

Shoring will not be required if both the following conditions are satisfied:

1. Excavation does not encroach upon a 1½ horizontal: 1 vertical theoretical slope line starting 1'-6" below top of rail and at 12'-0" minimum from centerline of the track.
2. Track is on level ground or in a cut section and on stable soil.

When track is on embankment, excavating the toe of embankment without shoring may affect the stability of the embankment. Therefore, excavation of embankment toe without shoring will not be permitted.

Preferred protection is the cofferdam type that completely encloses the excavation. Where dictated by conditions, partial cofferdams with open sides away from the track may be used. Cofferdams shall be constructed using steel sheet piling or steel soldier beams with timber lagging. Wales and struts shall be provided as needed. The following shall be considered when designing cofferdams:

- a. Sheeting shall be designed to resist a vertical live load surcharge of 1800 lbs per square foot, in addition to active earth pressure. The surcharge shall be assumed to act on a continuous strip, 8'-6" wide. Lateral pressures due to surcharge shall be computed using the strip load formula shown in A.R.E.M.A. specifications, Chapter 8, Part 20.
- b. Allowable stresses in materials shall be in accordance with A.R.E.M.A. Specifications, Chapter 7, 8, and 15.
- c. A construction procedure for temporary shoring shall be shown on the drawing.
- d. Safety railing shall be installed when temporary shoring is within 12 feet of track.

- e. A minimum distance of 10 feet from centerline of the track to face of sheeting shall be maintained.

The Contractor shall submit the following drawings and calculations for Railroad review and approval.

1. Three (3) sets of detailed drawings of the shoring systems showing sizes of all structural members, details of connections, and distances from centerline of track to face of shoring. Drawing shall show a section showing height of sheeting and track elevation in relation to bottom of excavation.
2. One set of calculations of the cofferdam design prepared in accordance with CSXT's Criteria for Overhead Bridges dated September 14, 2007. The drawings and calculations shall be prepared by a North Carolina Registered Professional Engineer experienced in the design of shoring and cofferdams and shall bear his seal and signature.

The subgrade of an operated track shall be maintained with edge of berm at least 10' from centerline of track and not more than 24" below top of rail. Unless so indicated on the plans the Contractor will not be required to make the existing section meet this specification and if substandard, the existing section will be maintained.

DEMOLITION OF EXISTING STRUCTURE:

Railroad tracks shall be protected from damage during demolition of existing structure or replacement of deck slab.

During demolition of the deck, a protection shield shall be erected over the track to catch falling debris. The protection shield shall be supported from girders or beams and shall not be lower than allowed temporary clearance. The deck shall be removed by cutting it in sections and lifting out. All cranes and hardware used in picks is to account for a 150% Factor of Safety. Factor of safety implied in crane charts is not to be considered in determination of lifting capacity. Large pieces of deck shall not be allowed to fall on protection shield.

Blasting will not be permitted to demolish a structure over or within railroad right-of-way.

The Contractor shall submit detailed demolition plans, including protection shield details to the Railroad Engineer for approval prior to the start of demolition. The plans shall also indicate the location and capacity of the proposed cranes and estimated lifting loads. The plans shall be prepared by a North Carolina Registered Professional Engineer and shall bear his seal and signature.

BLASTING:

Explosives shall not be used adjacent to any track or other railroad property without the advance approval of the Highway Engineer and the Railroad Engineer, but such approval will not relieve the Contractor of any liability. If use of explosives is permitted, the blasting shall be

done with light charges under the direct experienced supervision of a responsible officer or employee of the Contractor, or of the Department of Transportation. Electric detonating fuses or charges shall not be used on account of possible premature explosions resulting from operation of 2-way train radios. Every precaution shall be taken to avoid damage to property, injury to persons and interruption of railroad operations.

No blasting shall be done without an authorized Railroad representative present, who will determine the approximate location of trains in order that the Contractor can be certain whether or not sufficient time will be available for blasting and subsequent cleanup without delaying trains. The Contractor shall notify the Railroad Engineer at least 10 days in advance of blasting to permit arrangement for the presence of an authorized Railroad representative and such flagging service as may be deemed necessary.

The Contractor shall have adequate equipment, labor, and materials at the job site and provide sufficient time to clean up the debris resulting from the blasting without delay to trains. He will at his expense correct any track misalignment or other damage to railroad property resulting from the blasting as directed by the Railroad Engineer. If his actions result in delays to trains, the Contractor shall bear the entire cost thereof.

Blasting shall be discontinued immediately upon notice by the Railroad Engineer or the Highway Engineer that it is too hazardous.

STORAGE OF MATERIALS:

Materials and equipment shall not be stored where they will interfere with railroad operations, nor on the rights-of-way of the Railroad Company without first having obtained permission from the Railroad Engineer, and such permission will be with the understanding that the Railroad Company will not be liable for damage to such material and equipment from any cause and that the Railroad Engineer may move or require the Contractor to move, at the Contractor's expense, such material and equipment.

DAMAGES:

The Contractor shall assume all liability for any and all damages to his work, employees, servants, equipment and materials caused by railroad traffic.

MAINTENANCE OF DITCHES ADJACENT TO RAILROAD TRACKS:

The Contractor shall submit plans indicating the proposed methods of erosion control during construction, in particular, excavation for the piers and grading.

The Contractor shall exercise necessary precautions to prevent fouling of track ballast and existing ditches in the excavation of material at the proposed structure site. He shall maintain the existing railroad ditches free from obstruction and silt through the duration of his construction operations and upon completion of the structure shall leave the ditches in conditions satisfactory to the Railroad Engineer.



Should material from excavating at the proposed structure site foul the track ballast, the Contractor will be required to clean or replace the fouled ballast under the direction of and to the satisfaction of the Railroad Engineer.

Any cost incurred by the Railroad Company for repairing damage to its property or to property of its tenants, caused by or resulting from the operations of the Contractor, shall be paid by the Contractor to the Railroad Company.

#### TEMPORARY RAILROAD GRADE CROSSINGS:

Where the plans show or imply that equipment or materials of any nature must be transported across a Railroad, unless the Department of Transportation has included arrangements for such crossings in its agreement with the Railroad, the Contractor will be required to first obtain authority for its installation, maintenance, and removal from the Railroad Engineer. The Contractor shall execute CSX Railroad's standard private road crossing agreement. Railroad Forces will do all work within two feet of the rail and the Contractor will pay all cost associated with the installation, maintenance and removal of the temporary grade crossing. The Contractor shall arrange for any resulting necessity of watching and flagging and to furnish the Railroad Company with a separate Railroad Protective Liability Policy other than the one required by these special provisions. All the above shall be at no cost to the Department of Transportation.

In the event the Department of Transportation has made arrangements for the Temporary Grade Crossings, the Contractor will need to have a railroad flagman on site during any use of the crossing and the crossings must be physically barricaded during such times that it is not required for use. The Contractor shall construct the road and approaches such that it does not interrupt existing drainage patterns and to the satisfaction of the Railroad. Flagman must be on site for construction and the roadway must be removed upon completion of the project. The Contractor shall restore the property including any drainage ditches. The Contractor's attention is called to the fact that he will not be required to bear the cost of the flagging services required by the Railroad Company or provide any additional railroad insurance except that required by the Insurance Special Provision.

#### ERECTION PROCEDURE:

The Contractor shall submit a detailed procedure for erecting the spans over railroad tracks. Equipment used for the erection, or removal of structures over railroad facilities, shall have a minimum lifting capacity of one hundred-fifty percent (150%). Factor of safety implied in crane charts is not to be considered in determination of lifting capacity. The procedure shall indicate the capacity of cranes, location of cranes with respect to the tracks and estimated lifting loads. The erection procedure must follow CSX Construction Guidelines and be prepared by a North Carolina Registered Professional Engineer and shall bear his seal and signature. The procedure must be approved by the Railroad.

#### FLAGGING PROTECTION OR WATCHMAN SERVICE:

The watchman and flagging service required by the Railroad Company for the safety of railroad operations because of work performed by the Contractor or subcontractors in connection with the construction of the proposed overhead bridge will be provided by CSX Transportation,

Inc. and the Contractor's special attention is called to the fact that he will not be required to bear the cost of any watchman or flagging service required by CSX Transportation, Inc., other than that required at any temporary grade crossing, as the Railroad Company will be reimbursed by the Department of Transportation on bills rendered monthly. All bills to be prepared in accordance with the Federal-Aid Policy Guide 23 CFR 646B.

When the Contractor's men or equipment are working within eighteen (18) feet of the nearest rail, over, under or adjacent to the track over which trains are operated, or when work is being performed adjacent to an operated track which may present a hazard to train operations, or when equipment is being used which does, or may infringe on such limits, and at other times, when in the opinion of the Railroad Engineer such protection is necessary, the services of a man or men will be used for flagman or watchman service.

The Contractor shall give 10 days advance notice to the Railroad Engineer in order that flagging service can be arranged and provided. No work shall be undertaken until the flagman, or flagmen, are at the job site. The estimated number and classification of men are shown in the Force Account Estimate.

The estimated cost of Flagging Protection or Watchman Service is shown in the Force Account Estimates prepared by CSX Transportation, Inc., and made a part of the Plans, Specifications and Estimate.

If the Railroad Company for any reason finds it necessary to furnish a watchman or flagman of a different classification from that shown in the Force Account Estimate, bills will be rendered and shall be paid on the basis of the rate of pay for the men used whether that is above or below the rate given. If the rate of pay of any employee that is to be used for watchman or flagging service is changed before the work is started or during the progress of the work, either by law or agreement between the Railroad Company and its employees, or if the tax rates on labor are changed, bills will be rendered by the Railroad Company and paid by the Department of Transportation on the new rates.

The Contractor's attention is also called to the fact that he will be required to carry on his operations which require flagging protection or watchman service in such a manner and sequence that the cost of such will be as economical as possible.

#### COMPLETION AND ACCEPTANCE OF WORK:

Upon completion of the work, the Contractor shall remove from within the limits of the railroad right of way all machinery, equipment, surplus materials, rubbish or temporary buildings of the Contractor, and leave said rights-of-way in a neat and orderly condition. After the final inspection has been made and work found to be completed in a satisfactory manner acceptable to the Department of Transportation and the Railroad Company, the Department of Transportation will be notified of the Railroad Company's acceptance in writing by the Railroad Engineer within ten (10) days or as soon thereafter as practicable.

At project completion, a complete set of "As Built" plans for the proposed construction shall be submitted to CSXT Bridge Maintenance and Design Group. CSXT will keep these plans on file in Jacksonville for future reference. Please address these plans to:

Mr. Rick Garro  
500 Water Street  
J-350  
Jacksonville, FL 32202

INSURANCE SPECIAL PROVISIONS FOR  
CSX TRANSPORTATION, INC.  
STRUCTURE MAINTENANCE

WBS 17BP.8.P.1

Richmond County

A. In addition to any other forms of insurance or bonds required elsewhere in the contract documents, the Contractor will be required to provide coverage conforming to the requirements of the Federal-Aid Policy Guide outlined under 23 CFR 646A for all work to be performed on Railroad right(s)-of-way under the terms of the contract by carrying insurance of the following kinds:

1. CONTRACTOR'S COMMERCIAL GENERAL LIABILITY INSURANCE:

a. The Contractor shall furnish an original and one copy of the certificates of insurance and one certified copy of the policy to the Department of Transportation as evidence that, with respect to the operations he performs on railroad right-of-way, he carries Commercial General Liability Insurance including "XCU" coverage providing for limits of liability as follows:

<u>COVERAGE</u>	<u>MINIMUM COMBINED LIMITS OF LIABILITY</u>
Bodily Injury Liability	\$ 5,000,000 Per Occurrence
Property Damage Liability	\$ 5,000,000 Aggregate

b. If any part of the work is sublet, similar insurance and evidence thereof in the same amounts as required of the Prime Contractor, shall be provided by the subcontractor to cover his operations on railroad right-of-way. As an alternative, the Prime Contractor may provide insurance for the subcontractor by means of separate and individual policies.

c. Certificates of Insurance holders are to be sent to the addressees given below. Certificates shall make reference to the project, milepost and county.

NCDOT Rail Division  
Engineering & Safety Branch  
c/o State Railroad Agent  
1556 Mail Service Center  
Raleigh, N.C. 27699-1556

CSX Transportation, Inc.  
Risk Manager  
500 Water Street  
Jacksonville, Florida  
32202

2. RAILROAD PROTECTIVE LIABILITY INSURANCE:

- a. The Contractor shall furnish to the Department of Transportation an original and one duplicate of the Railroad Protective Liability Insurance Policy with limits of liability as follows:

<u>COVERAGE</u>	<u>MINIMUM COMBINED LIMITS OF LIABILITY</u>
Bodily Injury Liability	\$5,000,000 Per Occurrence
Property Damage Liability	\$10,000,000 Aggregate Per Annual Policy Period
Physical Damage to Property	

- b. The Railroad Protective Liability Policy is to be written on the ISO/RIMA Form No. CG 00 35 10 93 (or updates thereof) including Endorsements CG 28 31 11 85 and IL 00 21 or their equivalents.
- c. The insurer must be financially stable and rated A- or better in A.M. Best & Company's Insurance Reports.
- d. The name and address of Contractor and Department of Transportation must be shown on the Declarations page.
- e. The named insured, description of the work and designation of the job site to be shown on the Policy are as follows:

Named Insured: CSX Transportation, Inc.  
 Casualty Insurance Department (J-907)  
 500 Water Street  
 Jacksonville, Florida 32202

Description and Designation: Clean and paint steel girders for Bridge No. 25 on US 220 over the tracks of CSX Transportation, Inc. in Richmond County, North Carolina near Railroad Milepost SF-259.64 identified as State Project WBS 17BP.8.P.1

- B. The Railroad Protective Liability Policy shall contain a clause requiring that sixty (60) days written notice be given the Department of Transportation and the Railroad Company prior to cancellation or change.

All other policies and certificates shall contain a clause requiring that thirty (30) days written notice be given to the Department of Transportation and the Railroad Company

prior to cancellation or change. The notices shall make reference to the project, milepost and county.

NOTICE TO:

Jonathan MacArthur  
Insurance Department  
CSX Corporation  
500 Water Street - C907  
Jacksonville, FL 32202  
904.359.3394 (Phone)  
904.306.5325 (Fax)  
Jonathan\_MacArthur@csx.com

COPY NOTICE TO:

NCDOT Rail Division  
Engineering & Safety Branch  
c/o State Railroad Agent  
1556 Mail Service Center  
Raleigh, N. C. 27699-1556

- C. All insurance herein before specified shall be carried until the final inspection and acceptance of the project, or that portion of the project within railroad right-of-way, by the Department of Transportation or, in the case of subcontractors, until the Contractor furnishes a letter to the Engineer stating that the subcontractor has completed his subcontracted work within railroad right-of-way to the satisfaction of the Contractor and that the Contractor will accomplish any additional work necessary on railroad right-of-way with his own forces. It is understood that the amounts specified are minimum amounts and that the Contractor may carry insurance in larger amounts if he so desires. As to "aggregate limits", if the insurer establishes loss reserves equal to or in excess of the aggregate limit specified in any of the required insurance policies, Contractor shall immediately notify the Department of Transportation and shall cease all operations until the aggregate limit is reinstated. If the insurer establishes loss reserves equal to or in excess of one-half of the aggregate limit, Contractor shall arrange to restore the aggregate limit to at least the minimum amount stated in these requirements. Any insurance policies and certificates taken out and furnished due to these requirements shall be approved by the Department of Transportation and the Railroad Company as to form and amount prior to beginning work on railroad right-of-way.

No extra allowance will be made for the insurance required hereunder; the entire cost of same is to be included in the unit contract price bids for the several pay items.

- D. Evidence of insurance as required above shall be furnished for review to the Department of Transportation at the address shown below after which it will be forwarded by the Department of Transportation to the Railroad.

Send to Department:

NCDOT Rail Division  
Engineering & Safety Branch  
c/o State Railroad Agent  
1556 Mail Service Center  
Raleigh, NC 27699-1556

**RAILROAD SITE DATA:**

Number of Trains per day: 14

Train Speed: 65 mph

Type- Passenger

Number of Tracks: 1