



OHIO DEPARTMENT OF TRANSPORTATION

CENTRAL OFFICE • 1980 WEST BROAD STREET • COLUMBUS, OH 43223

TED STRICKLAND, GOVERNOR • JOLENE M. MOLITORIS, DIRECTOR

November 23, 2010

Mr. Chuck Gullackson
Asst. Chef Engineer - Public Projects
CSX Transportation
500 Water Street - J301
Jacksonville, FL. 32202

SUBJECT: Cleveland, Cuyahoga County, Ohio
Broadview Road bridge painting over CSX
Agency Reference: CUY-480-10.54/VAR, PID No. 85150
CSX Reference: Cleveland Shortline, Great Lakes Division
AARDOT # 524293E
MP QDS-12.72 66

Dear Mr. Gullackson:

This Letter Agreement is authorization for CSX Transportation and/or their consultants to begin engineering-review tasks for the above-referenced project.


The proposed work for this project includes bridge painting at the above-referenced bridge location over CSX in the City of Cleveland, Cuyahoga County, OH.

- 1) No work will commence until the Railway has approved the State's final plans for the project. All work will be performed in accordance with the approved plans, specifications and the attached Special Clauses in the Proposal.
- 2) During the performance of the work, temporary construction clearances of 22'-0" vertically above the top of rail and 13'-0" horizontally from the centerline of a track shall be maintained to any form work, false work or other temporary obstruction.
- 3) The State's Contractor will not be allowed to commence work on or over Railway property until the following conditions have been met:
 - a) The State has received notice from the Railway that the required insurance is satisfactory.
 - b) The State has received written authorization from the Railway to begin work on Railway property. The written authorization will include the name and telephone number of the local representative who must be contacted to arrange for flag protection.

- c) The State shall reimburse the Railway for all necessary force account work to accommodate the project, including but not limited to flagging and construction engineering.
 - d) All obligations of the State provided for in this agreement which require the expenditure of funds by the State shall terminate at the end of the present biennium, being June 30, 2011. If construction covered under said agreement is not completed by June 30, 2011, it is the expressed intention of the parties to renew said obligations for one successive biennium period; with the renewal period beginning July 1, 2011 and ending no later than June 30, 2013; until such time as construction covered under said agreement is complete. Said renewal is conditioned upon the State determining future appropriations will permit the State to renew said obligations.
 - e) Contingent upon meeting requirements indicated above, railroad shall permit the State and/or its contractor to enter upon lands owned or operated by the company to permit construction and/or maintenance referenced herein.
- (4) The State shall reimburse the railroad for applicable construction and engineering costs, based upon project billings rendered from the railroad in accordance with Federal Aid Policy Guide 140(1) of the Federal Highway Administration. The railroad shall render its billings to the State within 90 days in accordance with said rules and regulations, and further agrees to provide and furnish such itemized records and substantiating data for such costs as may be necessary.

If you agree with the terms of this letter, please indicate your concurrence by signing in the space below and return one copy of this letter to me. Please contact Rich Behrendt, Program Mgr./ State Rail Coordinator at (614) 387-3097, or by email at richard.behrendt@dot.state.oh.us if you have any questions or concerns, or wish to discuss this project further.

Sincerely,


Jolene M. Molitoris
Director

Accepted by CSX Transportation:

By: 

Title: _____

Date: Dale W. Ophardt
Assistant Vice President Engineering September 8, 2011

CUYAHOGA COUNTY
CUY-480-10.54/var; PID 85150
CSX TRANSPORTATION INC.

CSX Great Lakes Division, Cleveland Shortline
MP QDS-12.72 66

SPECIAL CLAUSES IN THE PROPOSAL

The bidder, if awarded the contract for this improvement agrees:

1. To cooperate at all times with the local officials of the railroad company.
2. To use all reasonable care and diligence in the work in order to avoid accidents, damage or unnecessary delay to, or interference with the trains and other property of the railroad company.
3. To conduct his work in a manner satisfactory to the Chief Engineer of the railroad company or his authorized representative, to perform his work in such manner and at such time as not to unnecessarily interfere with the movements of trains or railroad traffic, and to hold his work at all times open to inspection of railroad company inspectors.
4. To cooperate with a public utility, railroad or other organizations having occasion to do work on or in connection with the improvement.
5. To avoid unnecessary use of railroad property without written permission of the railroad company and to leave railroad roadbed and property in a condition acceptable to the Chief Engineer of the railroad company.
6. To execute a bond conditioned according to Section 5525.16 of the Revised Code of Ohio, in favor of the State of Ohio and further to carry insurance of the following kinds and amounts:

a) **Railroad Protective Liability Insurance.**

In addition to the above, he shall furnish evidence to the highway department that, with respect to the operations he or any of his sub-contractors perform, he has provided for and in behalf of CSX Transportation Inc. in the amount of \$5,000,000 per occurrence and subject to that limit per occurrence, an aggregate limit in the amount of \$10,000,000 for each annual period.

The above railroad protective policy of insurance shall conform to the Railroad Liability requirements prescribed by the Federal Highway Administration in Federal-Aid Policy Guide 23 CFR 646A as amended. The insurer must be rated B+ or better by A.M. Best Company, Inc.

The corporate name and address of the "Named Insured" as listed on the policy shall be as follows:

CSX Transportation, Inc.
500 Water Street, C-907
Jacksonville, FL 32202

The description of operations must appear on the Declarations, must match the project description in this agreement and must include the appropriate MP and/or OP number as identified at the top of pg. 1

The job location must appear on the Declarations page and must include the city, state and appropriate highway name/number.

The name and address of the prime contractor must appear on the Declarations.

The name and address of the Department must be identified on the Declarations as the "Involved Governmental Authority or Other Contracting Party."

Endorsements that **must** be included:

- Pollution Exclusion Amendment – CG 28 31 (not required with CG 00 35 01 96 and newer versions)
- Delete Common Policy Conditions – Section E. Premiums

Other endorsements/forms that will be accepted are:

- Broad Form Nuclear Exclusion – Form IL 00 21
- 30-day Advance Notice of Non-renewal or cancellation
- Required State Cancellation Endorsement
- Quick Reference or Index Form CL/IL 240

Endorsements/forms that are NOT acceptable are:

- Any Pollution Exclusion Endorsement except CG 28 31
- Any Punitive or Exemplary Damages Exclusion
- Any other endorsement/form not specifically authorized above.
- Any type of deductible policy

The number of trains operating through the improvement at both locations is estimated to be:

0 Passenger trains per day @ ____ miles per hour.

46 Freight trains per day @ 50 miles per hour.

Additional Terms

1. Contractor must submit its original insurance policies and two (2) copies and all notices and correspondence regarding the insurance policies to:

Donna Melton
CSX Corporation
500 Water Street – C907
Jacksonville, FL. 32202
Phone: 904-359-1247
FAX: 904-245-2833
Email: donna_melton@csx.com

- 2 Neither Agency nor Contractor may begin work on the Project until it has received CSXT's written approval of the required insurance policies.

Certificate must be provided which evidences the following coverages and lists the Certificate Holder as:

CSX Transportation, Inc.
500 Water Street, C-907
Jacksonville, FL 32202

Commercial General Liability: as required by the Department's Construction and Material Specification, Section 107.12, and lists CSX Transportation, Inc. as additional insured.

Automobile Liability: Limits of minimum of \$1,000,000 per occurrence, and lists CSX Transportation, Inc. as additional insured.

(b) General Insurance Requirements

The insurance hereinbefore specified shall be with an acceptable insurance company authorized to do business in the State of Ohio, and shall be taken out before execution of the Contract by the Director and kept in effect until all work required to be performed under the terms of the contract is satisfactorily completed as evidenced by the formal acceptance by the State. Such policies shall include thirty (30) days canceling notice. The cost of insurance hereinbefore specified in subsection (a) will be a specific bid item.

Notwithstanding the Department's Construction and Material Specification No. 107.12 "Evidence" as above set forth shall consist of furnishing the Director of Transportation three (3) certified copies of the railroad policy.

7. To indemnify, defend, and hold CSXT and its affiliates harmless from and against all claims, demands, payments, suits, actions, judgments, settlements, and damages of every nature, degree, and kind (including direct, indirect, consequential, incidental, and punitive damages), for any injury to or death to any person(s) (including, but not limited to the employees of CSXT, its affiliates, the State or the Contractor), for the loss of or damage to any property whatsoever (including but not limited to property owned by or in the care, custody, or control of CSXT, its affiliates, the State or the Contractor, and environmental damages and any related remediation brought or recovered against CSXT and its affiliates), arising directly or indirectly from the negligence, recklessness or intentional wrongful misconduct of the Contractor, the State, and their respective agents, employees, invitees, contractors, or its contractor's agents, employees or invitees in the performance of work in connection with the project or activities incidental thereto, or from their presence on or about CSXT's property. The foregoing indemnification obligation shall not be limited to the insurance coverage required in paragraph 6 above
8. The Railroad company will assign, at the sole cost and expense of the Department, railroad flaggers or other protective services and devices as necessary to insure the safety and continuity of the work to be performed as a part of this contract. Said services and devices will be provided when necessary, as determined by the railroad company, because of any of the Contractor's operations over, under or adjacent to tracks over which trains are operating. The provision of such protective personnel and devices does not relieve the Contractor from the liability of payment for damage caused by his operations.

Such protection will be required when men or equipment are working within clearances limits of 25 feet of a rail or when work being performed adjacent to operating tracks may present hazards to tracks, train operation, or when equipment does or may infringe upon such limits.

The Contractor will not be permitted to operate any of his own equipment on railroad tracks except under an acceptable arrangement with the railroad company. Such equipment and the operation of such equipment, or equipment rented from the railroad company, shall be arranged for by the Contractor with the railroad and the cost for its use, including protection or railroad traffic, shall be borne by the Contractor.

The Contractor shall notify the following named individual for each railroad company at least 30 days, or as directed by the authorized representative of the Railroad, in advance of starting any work which might require protection:

Mr. Dave Fette, Regional Director R/W Construction
CSX Transportation, Inc.
1717 Dixie Highway, Suite 400
Fort Wright, KY 41011 - 2785
Telephone: (859) 344- 8137

The Contractor shall notify the railroad at least 5 working days in advance of suspending or ceasing operations that require a flagger.

Railroad protective personnel assigned to the project will be responsible for notifying the Engineer upon arrival at the job site on the first working day that protective services begin and on the last day that he performs such services. This will be required for each separate period that such services are provided. The Engineer will document such notification in the project diary.

The Contractor will be responsible for protective services provided at his request and not utilized due, in the opinion of the Engineer, to a change in the Contractor's construction schedule or if it is determined by the Engineer that the requested services were not necessary. The actual costs for such protective services so assessed to the Contractor will be deducted from the Contract.

The decision of the Director of Transportation shall be final in the event of controversy as to the necessity for any protection services provided and not utilized by the Contractor as described in the preceding paragraph.

9. To pay the railroad or owning company for any changes, requested for his convenience, to railroad property, facilities, wire, fiber optic and/or pipe lines other than shown on the plans for the project.
10. If at any time the contractor desires a temporary crossing of the railroad's tracks, he shall make a request for a temporary crossing from the railroad. If approved, he shall arrange with the railroad company, execute its regular form of private grade crossing agreement covering the crossing desired, paying all construction, maintenance, removal, protection and other costs.

11. Methods and procedures for performing work on property of **CSX Transportation, Inc.** must be approved by:

David J. Fette, Regional Director Right of Way Construction
CSX Transportation, Inc.
1717 Dixie Highway, Suite 400
Fort Wright, KY 41011-2785
Phone: (859) 344-8137

End of Special Clauses

CSX TRANSPORTATION

CONSTRUCTION SUBMISSION CRITERIA

TABLE OF CONTENTS

	Page Number
INTRODUCTION	1
SECTION I: Definitions	1
SECTION II: Demolition Procedure	2
SECTION III: Erection Procedure	5
SECTION IV: Excavation and Shoring	7
SECTION V: Track Monitoring	10

Office of Chief Engineer Design, Construction & Capacity

Jacksonville, Florida

Date Issued: April 3, 2009

CONSTRUCTION SUBMISSION CRITERIA

INTRODUCTION

The information in this document is intended to improve communication and clarify the CSXT criteria related to construction submissions that may involve CSXT property. All work must be performed in a manner as to not adversely impact existing CSXT operations. Please note that there are other standards associated with construction that must be adhered to including but not limited to the CSXT Special Provisions, CSXT Insurance Requirements as well as governing local, county, state and federal requirements. This document and other CSXT standards are subject to change without notice, and future revisions will be available at the CSXT website www.csx.com.

I. DEFINITIONS

Agency – The project sponsor.

AREMA – American Railway Engineering and Maintenance Association – the North American railroad industry standards group.

Construction Submission – The Agency or its representative shall submit six (6) sets of plans, supporting calculations, and detailed means and methods procedures for the specific proposed activity. All plans and supporting calculations shall be signed/sealed by a Professional Engineer as defined below.

Controlled Demolition – Removal of the existing structure or subcomponents in a manner that prevents any portions from falling onto CSXT employees, equipment or property. The proposed procedures shall be detailed in the means and methods submission for CSXT review and acceptance.

Contractor – The Agency's or CSXT's representative retained to perform the project work.

Engineer – CSXT Engineering Representative or a GEC authorized to act on the behalf of CSXT.

GEC – General Engineering Consultant who has been authorized to act on the behalf of CSXT.

Professional Engineer – An engineer who is licensed in State or Commonwealth (if required by the Agency) in which the project is to occur. The drawings and calculations shall be prepared by the Professional Engineer and shall bear his seal and signature.

Submission Review Period - **a minimum of 30 days in advance of start of work.** Up to 30 days will be required for the initial review response. Up to an additional 30 days may be required to review any/all subsequent submissions or resubmission.

CONSTRUCTION SUBMISSION CRITERIA

Theoretical Railroad Live Load Influence Zone – A 1½ Horizontal to 1 Vertical theoretical slope line starting 1'-6" below top of rail elevation and 12'-0" from the centerline of the nearest track.

II. DEMOLITION PROCEDURE:

The Agency or its contractor shall submit as defined above, a detailed procedure for demolition of the structure over Railroad Tracks.

- A. The Agency or its Contractor shall submit the detailed procedure for demolition of existing structures over or adjacent to CSXT's tracks or right-of-way. This procedure shall include a plan showing the locations of cranes, horizontally and vertically, operating radii, with loading or disposal locations shown, with all dimensions referenced from the center line of the near track, including beam placement on ground or truck loading staging plan. The plan shall also include the location, with relevant dimensions, of all tracks, other railroad facilities; wires, poles, adjacent structures, or buried utilities that could be affected, showing that the proposed lifts are clear of these obstructions should be shown. No crane or equipment may be set on the CSXT rails or track structure and no material may be dropped on CSXT property.
- B. Also included with this submittal the following information:
 - 1. Computations showing weight of picks must be submitted.
Computations shall be made from field verified plans of the existing structure beams being removed and those plans or sections thereof shall also be included in the submittal; the weight shall include the weight of concrete or other materials including lifting rigging.
 - 2. If the sponsor can prove to CSXT that plans do not exist and weights must be calculated from field measurements, the field measurements are to be made under the supervision of the Professional Engineer submitting the procedure and shall include sketches and estimated weight calculations with the procedure. If possible, field measurements shall be taken with a CSXT representative present.
 - 3. Crane rating sheets showing cranes to be adequate for 150% of the actual weight of the pick. A complete set of crane charts, including crane, counterweight, maximum boom angle, and boom nomenclature is to be submitted. Safety factors that may have

CONSTRUCTION SUBMISSION CRITERIA

been "built in" to the crane charts are not to be considered when determining the 150% Factor of Safety.

4. A data sheet shall be prepared listing the type, size and arrangements of slings, shackles, or other connecting equipment. Include copies of a catalog or information sheets for specialized equipment. All specific components proposed for use shall be clearly identified and highlighted in the submitted documents. The safe working load capacity of the connecting equipment shall be 150% above the calculated weight of the pick.
5. A complete written procedure is to be included that describes the sequence of events, indicating the order of lifts and any repositioning or rehitching of the crane or cranes.
6. A time schedule for each of the various stages must be shown as well as a schedule for the entire lifting procedure. The proposed time frames for all critical subtasks (i.e., torch/saw cutting various portions of the superstructure or substructure, dismantling splices, installing temporary bracing, etc.) shall be furnished so that the potential impact(s) to CSXT operations may be assessed and eliminated or minimized.
7. The names and experience of the key Contractor personnel involved in the operation shall be included in the Contractor's means and methods submission.
8. Design and supporting calculations prepared by the Professional Engineer for items including the temporary support of components or intermediate stages shall be submitted for review. A guardrail will be required to be installed in a track where a temporary bent is located within twelve (12) feet from the centerline of that track. The guardrail will be installed by CSXT forces at the expense of the Agency or its contractor.
9. Existing, obsolete, bridge piers shall be removed to a minimum of 3'-0" below the finished grade, final ditch line invert, or as directed by the Engineer.
10. A minimum quantity of 25 Tons of CSXT approved track ballast may be required to be furnished and stockpiled on site by the Contractor, or as directed by the Engineer.

CONSTRUCTION SUBMISSION CRITERIA

11. CSXT's tracks, signals, structures, and other facilities shall be protected from damage during demolition of existing structure or replacement of deck slab.

NOTE: On-track or ground level debris shields such as crane mats are prohibited for use by CSXT.

- C. Overhead Demolition Debris Shield - Shall be installed prior to the demolition of the bridge deck or other relevant portions of the superstructure.
1. The demolition debris shield shall be erected from the underside of the bridge over the track area to catch all falling debris.
 2. The Contractor shall include the demolition debris shield installation/removal means and methods as part of the proposed Controlled Demolition procedure submission.
 3. The demolition debris shield shall provide 23'-0" minimum vertical clearance or maintain the existing vertical clearance if the existing clearance is less than 23'-0" as approved by CSXT. Horizontal clearance to the centerline of the track should not be reduced unless approved by the Engineer.
 4. The vertical clearance ATR (above top of rail) is measured from the top of rail to the lowest point on the overhead shielding system measured within a distance of 6'-0" out from each side of the track centerline.
 5. The demolition debris shield design and supporting calculations all signed/sealed by a Professional Engineer, shall be submitted for review and acceptance.
 6. The demolition debris shield shall have a **minimum** design load of 50 pounds per square foot **plus** the weight of the equipment, debris, personnel, and other loads to be carried.
 7. The Contractor shall include the proposed bridge deck removal procedure in its demolition means and methods and shall verify that the size and quantity of the demolition debris generated by the procedure does not exceed the shield design loads.
 8. The contractor shall clean the demolition debris shield daily or more frequently as dictated either by the approved design parameters or as directed by the Engineer.

CONSTRUCTION SUBMISSION CRITERIA

- D. Vertical Demolition Debris Shield – This type of shield may be required for substructure removals in close proximity to CSXT track and other facilities, as determined by the Engineer.
1. Prior to commencing the demolition activity, the Contractor shall install a ballast protection system consisting of geotextile to keep the railroad ballast from becoming fouled with construction or demolition debris and fines. The geotextile ballast protection system shall be installed and maintained by the Contractor for the project duration in accordance with the attached plan, or with additional measures as directed by the Engineer.
 2. The Agency, or its Contractor, shall submit detailed plans, with detailed calculations, prepared and submitted by a Professional Engineer of the protection shield and ballast protection systems for approval prior to the start of demolition.
 3. Blasting will not be permitted to demolish a structure over or within CSXT's right-of-way.
- E. The Controlled Demolition procedure must be approved by the **Engineer** prior to undertaking work on the project.
- F. The Contractor shall provide timely communication to the Engineer when scheduling the demolition related work so that the Engineer may be present during the entire demolition procedure.
- G. At any time during demolition activities, the Engineer may require revisions to the previously approved procedures to address weather, site conditions or other circumstances which may create a potential hazard to rail operations or CSXT facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the Engineer's satisfaction. CSXT and its GEC shall not be responsible for any additional costs or time claims associated with such revisions.

III. **ERECTION PROCEDURE:**

The Agency or its Contractor shall submit a detailed procedure for performing erection on/about CSXT property, as defined above.

- A. The Agency or its Contractor shall submit six (6) copies of the detailed procedure for erection of the proposed structures over or adjacent to

CONSTRUCTION SUBMISSION CRITERIA

CSXT's tracks or right-of-way. This procedure shall include a plan showing the locations of cranes, horizontally and vertically, operating radii, with staging locations shown, including beam placement on ground or truck unloading staging plan. Plan should also include the location of all tracks, other railroad facilities; wires, poles, adjacent structures, or buried utilities that could be affected, showing that the proposed lifts are clear of these obstructions should be shown. No crane or equipment may be set on the CSXT rails or track structure.

B. Also included with this submittal the following information:

1. As-Built Bridge Seat Elevations - All as-built bridge seats and top of rail elevations shall be furnished to the Engineer for review and verification at least 30 days in advance of construction or erection, to ensure that minimum vertical clearances as approved in the plans will be achieved.
2. Computations showing weight of picks must be submitted.
Computations shall be made from plans of the structure beams being erected and those plans or sections thereof shall also be included in the submittal; the weight shall include the weight of concrete or other materials including lifting rigging.
3. Crane rating sheets showing cranes to be adequate for 150% of the actual weight of the pick. A complete set of crane charts, including crane, counterweight, maximum boom angle, and boom nomenclature is to be submitted. Safety factors that may have been "built in" to the crane charts are not to be considered when determining the 150% Factor of Safety.
4. A data sheet shall be prepared listing the type, size and arrangements of slings, shackles, or other connecting equipment. Include copies of a catalog or information sheets for specialized equipment. All specific components proposed for use shall be clearly identified and highlighted in the submitted documents. The safe working load capacity of the connecting equipment shall be 150% above the calculated weight of the pick.
5. A complete written procedure is to be included that describes the sequence of events, indicating the order of lifts and any repositioning or rehitching of the crane or cranes.

CONSTRUCTION SUBMISSION CRITERIA

6. A time schedule for each of the various stages must be shown as well as a schedule for the entire lifting procedure. The proposed time frames for all critical sub tasks (i.e., performing aerial splices, installing temporary bracing, etc.) shall be furnished so that the potential impact(s) to CSXT operations may be assessed and eliminated or minimized.
 7. The names and experience of the key Contractor personnel involved in the operation shall be included in the Contractor's means and methods submission.
 8. Design and supporting calculations prepared by the Professional Engineer for items including the temporary support of components or intermediate stages shall be submitted for review. A guardrail will be required to be installed in a track where a temporary bent is located within twelve (12) feet from the centerline of that track.
- C. The proposed Erection procedure must be approved by the Engineer prior to undertaking work on the project.
- D. The Contractor shall provide timely communication to the Engineer when scheduling the erection related work so that the Engineer may be present during the entire erection procedure.
- E. At any time during construction activities, the Engineer may require revisions to the previously approved procedures to address weather, site conditions or other circumstances which may create a potential hazard to rail operations or CSXT facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the Engineer's satisfaction. CSXT and its GEC shall not be responsible for any additional costs or time claims associated with such revisions.

IV. EXCAVATION AND SHORING:

The Agency or its contractor shall submit as defined above, a detailed procedure for the installing sheeting/shoring adjacent to Railroad Tracks.

- A. Shoring protection shall be provided when excavating adjacent to an active track or railroad facility or as determined by CSXT. Shoring will be provided in accordance with AREMA *Manual for Railway Engineering* Chapter 8, part 28; except as noted below.

CONSTRUCTION SUBMISSION CRITERIA

- B. Shoring may not be required if all of 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 (live load influence zone).
 2. Track is on level ground or in a cut section and on stable soil.
 3. Excavation does not adversely impact the stability of a CSXT facility (i.e. signal bungalow, drainage facility, undergrade bridge, building, etc.).
 4. Shoring is not required by any governing construction code.
- C. When the track is on an embankment, excavating the toe of the embankment without shoring may affect the stability of the embankment. Therefore, excavation of the embankment toe without shoring will not be permitted.
- D. Trench Boxes are prohibited for use on CSXT within the Theoretical Railroad Live Load Influence Zone.
- E. The required 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 when approved by the Engineer, steel soldier piles with timber lagging. Wales and struts shall be provided and designed as needed. The following shall be considered when designing cofferdams:
1. Shoring shall be designed to resist a vertical live load surcharge of 1,880 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 *AREMA Manual for Railway Engineering*, Chapter 8, Part 20.
 2. Allowable stresses in materials shall be in accordance with *AREMA Manual for Railway Engineering*, Chapter 7, 8, and 15.
 3. A construction procedure for temporary shoring shall be shown on the drawing.

CONSTRUCTION SUBMISSION CRITERIA

4. All shoring systems on or adjacent to CSXT right-of-way shall be equipped with railings or other approved fall protection.
 5. A minimum horizontal clearance of 10'-0" from centerline of the track to face of nearest point of shoring shall be maintained provided a 12'-0" roadbed is maintained with a temporary walkway and handrail system.
- F. The contractor shall submit the following drawings and calculations (all shall be signed/sealed by a Professional Engineer) for CSXT's review and approval.
1. Six (6) 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 shoring and track elevation in relation to bottom of excavation.
 2. Six (6) sets of calculations of the shoring design.

The drawings and calculations shall be prepared by a Licensed Professional Engineer in the State (if required by the Agency) where the shoring is to be constructed and shall bear his seal and signature. Shoring plans shall be approved by CSXT's construction engineering and inspection representative.
 3. For sheeting and shoring within 18'-0" of the centerline of the track, the live load influence zone, and in slopes, the contractor shall use interlocked steel sheeting (sheet pile).
 4. Sheet pile installed in slopes or within 18'-0" of the centerline of track shall not be removed.
 5. Sheet piles shall be cut off a minimum of 3'-0" below the finished grade, ditch line invert, or as directed by the **Engineer**. The ground shall be backfilled and compacted immediately after sheet pile is cut off.
 6. A procedure for cutting off the sheet pile and restoring the embankment shall be submitted to the Engineer for review and acceptance.

CONSTRUCTION SUBMISSION CRITERIA

- G. Blasting is not permitted on or adjacent to CSXT right-of-way without prior written approval from the **Engineer**. Mechanical and Chemical means of rock removal must be explored before blasting is considered. If written permission for the use of explosives is granted, the Agency or Contractor must comply with all of the following:
1. Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of the Agency or Contractor.
 2. Electronic detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way train radios.
 3. No blasting shall be done without the presence of an authorized representative of CSXT. Advance notice to the Engineer as required by the CSXT Special Provisions is required to arrange for the presence of an authorized CSXT representative and any flagging that CSXT may require.
 4. Agency or Contractor must have at the project site adequate equipment, labor and materials, and allow sufficient time, to clean up debris resulting from the blasting and correct any misalignment of tracks or other damage to CSXT property resulting from the blasting. Any corrective measures required must be performed as directed by the Engineer at the Agency's or Contractor's expense without any delay to trains. If Agency's or Contractor's actions result in the delay of any trains including passenger trains, the Agency or Contractor shall bear the entire cost thereof.
 5. The Agency or Contractor may not store explosives on CSXT property.
 6. At any time during blasting activities, the Engineer may require revisions to the previously approved procedures to address weather, site conditions or other circumstances which may create a potential hazard to rail operations or CSXT facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the Engineer's satisfaction. CSXT and its GEC shall not be responsible for any additional costs or time claims associated with such revisions.

V. TRACK MONITORING

Office of Chief Engineer Design, Construction & Capacity

Jacksonville, Florida

Date Issued: April 3, 2009

CONSTRUCTION SUBMISSION CRITERIA

The Agency or its Contractor shall submit for CSXT review and approval, a detailed track monitoring program to detect both horizontal and vertical movement of the CSXT track and roadbed, a minimum of 30 days in advance of start of work.

- A. For the installation of temporary or permanent shoring systems, including but not limited to soldier piles and lagging, and interlocked steel sheeting on or adjacent to CSXT's right-of-way, the contractor may be required to submit a detailed track monitoring program for CSXT's approval prior to performing any work near CSXT's right-of-way.
- B. The program shall specify the survey locations, the distance between the location points, and frequency of monitoring before, during, and after construction. CSXT reserves to the right to modify the survey locations and monitoring frequency as necessary during the project.
- C. The survey data shall be collected in accordance with the approved frequency and immediately furnished to the Engineer for analysis.
- D. If any movement has occurred as determined by the Engineer, CSXT will be immediately notified. CSXT, at its sole discretion, shall have the right to immediately require all contractor operations to be ceased, have the excavated area immediately backfilled and/or determine what corrective action is required. Any corrective action required by CSXT or performed by CSXT including the monitoring of corrective action of the contractor will be at project expense.

**CSX TRANSPORTATION, INC.
FORCE ACCOUNT ESTIMATE**

Page 1

ACCT. CODE : 709 - OH0821

ESTIMATE SUBJECT TO REVISION AFTER: 12/14/2011		DOT NO.: 524 293E
CITY: Cleveland	COUNTY: Cuyahoga	STATE: OH
DESCRIPTION: Proposed Bridge Painting - Broadview Road over CSXT.		
DIVISION: Great Lakes	SUB-DIV: Cleveland Short Line	MILE POST: QDS-12.66
AGENCY PROJECT NUMBER: CUY-480-10.54/VAR PAINT; PID 85150		

PRELIMINARY ENGINEERING:

200 Labor (Non Contract)	\$ 810
200 Additive 31.34%	\$ 254
230 Expenses	\$ 141
212 Contracted & Administrative Engineering Services	\$ 7,500
Subtotal	\$ 8,705

CONSTRUCTION ENGINEERING/INSPECTION:

200 Labor (Non Contract)	\$ 810
200 Additive 31.34%	\$ 254
230 Expenses	\$ 141
212 Contracted & Administrative Engineering Services	\$ 17,500
Subtotal	\$ 18,705

FLAGGING SERVICE: (Contract Labor)

070 Labor (Conductor-Flagman)	\$ 15,400
050 Labor (Foreman/Inspector)	\$ -
070 Additive 73.76% (Transportation Department)	\$ 11,359
050 Additive 97.95% (Engineering Department)	\$ -
230 Per Diem (Engineering Department)	\$ -
230 Expenses	\$ 1,980
Subtotal	\$ 28,739

SIGNAL & COMMUNICATIONS WORK: (Details Attached)

\$ -

TRACK WORK: (Details Attached)

\$ -

ACCOUNTING & BILLING:

040 Labor	\$ 800
040 Additive 63.03%	\$ 504
Subtotal	\$ 1,304

PROJECT SUBTOTAL

900 <u>CONTINGENCIES:</u> 10.00%	\$ 57,453
	\$ 5,745

GRAND TOTAL *****

\$ 63,198

DIVISION OF COST:

Agency 100.00%	\$ 63,198
Railroad	\$ -
TOTAL *****	\$ 63,198

NOTE: Estimate is based on FULL CROSSING CLOSURE during work by Railroad Forces.

This estimate has been prepared based on site conditions, anticipated work duration periods, material prices, labor rates, manpower and resource availability, and other factors known as of the date prepared. The actual cost for CSXT work may differ based upon the agency's requirements, their contractor's work procedures, and/or other conditions that become apparent once construction commences or during the progress of the work

Office of Assistant Chief Engineer Public Projects--Jacksonville, Florida

Estimated by: URS Corporation, Terry Bump

Approved by: KE Murphy

CSXT Public Project Group

DATE: 06/17/2011

REVISED:

DATE: 08/02/2011

Form Revised 05-05-2011-LLS

Project Summary Sheet

**CSX TRANSPORTATION, INC.
FORCE ACCOUNT ESTIMATE**

Page 1 of 3

ACCT. CODE : 709 - OH0821
Pub EB - OH EB3 (OH)

ESTIMATE SUBJECT TO REVISION AFTER:		12/14/2011	DOT NO.: 524 293E
CITY: Cleveland	COUNTY: Cuyahoga	STATE: OH	
DESCRIPTION: Proposed Bridge Painting - Broadview Road over CSXT.			
DIVISION: Great Lakes	SUB-DIV: Cleveland Short Line	MILEPOST: QDS-12.66	
DRAWING NO.: ____	DRAWING DATE: ____		
AGENCY PROJECT NUMBER: CUY-480-10.54/VAR PAINT; PID 85150			

PRELIMINARY ENGINEERING:

200	Labor (Non Contract)	3	Days @	\$ 270.00	\$ 810
200	Additive 31.34%				\$ 254
230	Expenses				\$ 141
212	Contracted & Administrative Engineering Services				\$ 7,500
	Subtotal				\$ 8,705

CONSTRUCTION ENGINEERING/INSPECTION:

200	Labor (Non Contract)	3	Days @	\$ 270.00	\$ 810
200	Additive 31.34%				\$ 254
230	Expenses				\$ 141
212	Contracted & Administrative Engineering Services				\$ 17,500
	Subtotal				\$ 18,705

FLAGGING SERVICE: (Contract Labor)

70	Labor (Conductor-Flagman)	44	Days @	\$ 350.00	\$ 15,400
50	Labor (Foreman/Inspector)	0	Days @	\$ 336.00	\$ -
70	Additive 73.76% (Transportation Department)				\$ 11,359
50	Additive 97.95% (Engineering Department)				\$ -
230	Expenses (Engineering Department)	0	Days @	\$ 75.00	\$ -
230	Expenses (Transportation Department)	44	Days @	\$ 45.00	\$ 1,980
	Subtotal				\$ 28,739

COMMUNICATIONS WORK:

Temporary (Details Attached)	\$ -
Permanent (Details Attached)	\$ -
Subtotal	\$ -

TRACK: LABOR

50	Traffic Control	0	MAN-HRS	\$ 24.00	\$ -
50	Remove Existing Crossing	0	MAN-HRS	\$ 24.00	\$ -
50	Renew Cross Ties	0	MAN-HRS	\$ 24.00	\$ -
50	Renew Rail	0	MAN-HRS	\$ 24.00	\$ -
50	Install OTM	0	MAN-HRS	\$ 24.00	\$ -
50	Install Field Welds	0	MAN-HRS	\$ 24.00	\$ -
50	Install Geo-Textile Fabric	0	MAN-HRS	\$ 24.00	\$ -
50	Install Sub-Drains	0	MAN-HRS	\$ 24.00	\$ -
50	Install Ballast	0	MAN-HRS	\$ 24.00	\$ -
50	Line and Surface	0	MAN-HRS	\$ 24.00	\$ -
50	Install Crossing Materials	0	MAN-HRS	\$ 24.00	\$ -
50	Install Bituminous Pavement	0	MAN-HRS	\$ 24.00	\$ -
50	_____	0	MAN-HRS	\$ 24.00	\$ -
50	_____	0	MAN-HRS	\$ 24.00	\$ -
50	_____	0	MAN-HRS	\$ 24.00	\$ -

**CSX TRANSPORTATION, INC.
FORCE ACCOUNT ESTIMATE**

Page 2 of 3

ACCT. CODE : 709 - OH0821

Pub EB - OH EB3 (OH)

50	Clean-Up		0	MAN-HRS	\$ 24.00	\$ -
50	Additive	97.95%				\$ -
230	Per Diem		0	MAN-DAY	\$ 90.00	\$ -
	Subtotal					\$ -

TRACK: MATERIAL

220	Cross Ties, Main Line		0	EA	\$ 39.00	\$ -
220	Cross tie - pre-plated		0	EA	\$ 83.50	\$ -
220	Cross-tie - Borate		0	EA	\$ 56.00	\$ -
220	Crossties, 10' Length		0	EA	\$ 46.00	\$ -
220	Tie plates		0	EA	\$ 10.51	\$ -
220	Rail, 136RE, New		0	LF	\$ 21.00	\$ -
220	Misc. OTM		1	LOT	\$ -	\$ -
210	Geo-Textile Fabric		0	RL	\$ 930.00	\$ -
210	Sub-Drains		0	LF	\$ 6.00	\$ -
220	Ballast - Car load		0	NT	\$ 12.00	\$ -
220	Ballast - Trucked in		0	NT	\$ 45.00	\$ -
220	Field Welds		0	EA	\$ 100.00	\$ -
			0		\$ -	\$ -
			0		\$ -	\$ -
210	Concrete Full Width		0	TF	\$ 250.00	\$ -
210	Concrete/Rubber Xing (CSX)		0	TF	\$ 200.00	\$ -
210	Rubber Crossing, Full Depth		0	TF	\$ 325.00	\$ -
210	Timber/Asphalt Crossing (CSX Standard)		0	TF	\$ 42.00	\$ -
210	Bituminous Material		0	NT		\$ -
210	Sales Tax on Material	0.00%				\$ -
210	Material Handling	5.00%				\$ -
	Subtotal					\$ -

CONTRACT:

215	Asphalt Paving (In Place)		0	NT		\$ -
241	Disposal of Waste Materials		0	TF	\$ 15.00	\$ -
215	Maintenance of Traffic		0	DAY	\$ 350.00	\$ -
	Subtotal					\$ -

241 **EQUIPMENT RENTAL:**

Subtotal						\$ -
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50	<u>WORK TRAIN:</u>		0	DAY	\$ 2,100.00	\$ -
	Subtotal					\$ -

SALVAGE:

228	Rail		0	NT	\$ 65.00	\$ -
228	OTM		0	NT	\$ 75.00	\$ -
	Subtotal					\$ -

SIGNAL WORK:

210	Material - Field & Consumables					\$ -
210	Material - Sales Tax					\$ -
220	Material - Shop					\$ -
60	Construction Labor					\$ -
65	Shop Labor					\$ -
230	Per Diem					\$ -
200	RR Engineering,Preliminary					\$ -

**CSX TRANSPORTATION, INC.
FORCE ACCOUNT ESTIMATE**

Page 3 of 3

ACCT. CODE : 709 - OH0821
Pub EB - OH EB3 (OH)

200	RR Engineering,Construction		\$	-
60	Additives to Construction Labor		\$	-
65	Additives to Shop Labor		\$	-
200	Additives to Engineering		\$	-
241	Equipment Expense		\$	-
241	Waste Management		\$	-
212	Contract Engineering		\$	-
211	Freight		\$	-
216	AC Power Service		\$	-
228	Salvage		\$	-
900	Other		\$	-
	Subtotal		\$	-

ACCOUNTING & BILLING:

40	Labor		4 Days @ \$ 200.00	\$	800
40	Additive	63.03%		\$	504
	Subtotal			\$	1,304

PROJECT SUBTOTAL:

900	<u>CONTINGENCIES:</u>	10.00%		\$	57,453
				\$	5,745

GRAND TOTAL	*****	\$	63,198
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DIVISION OF COST:

Agency	<u>100.00%</u>	\$	63,198
Railroad	<u>0.00%</u>	\$	-
TOTAL	*****	\$	63,198

NOTE: Estimate is based on FULL CROSSING CLOSURE during work by Railroad Forces.

This estimate has been prepared based on site conditions, anticipated work duration periods, material prices, labor rates, manpower and resource availability, and other factors known as of the date prepared. The actual cost for CSXT work may differ based upon the agency's requirements, their contractor's work procedures, and/or other conditions that become apparent once construction commences or during the progress of the work

Office of Assistant Chief Engineer Public Projects--Jacksonville, Florida

Estimate prepared by: URS Corporation, Terry Bump

Approved by: KE Murphy

CSXT Public Project Group

DATE: 06/17/2011

REVISED:

DATE: 08/02/2011

Form Revised 05-05-2011-LLS

CLEVELAND, CUYAHOGA COUNTY, OHIO
CUI-480-10.54/VAR; PID 85150
CSX TRANSPORTATION, INC.
MILEPOST QDS-12.66
CSXT OP# OH0821

SCHEDULE I

CONTRACTOR'S ACCEPTANCE

To and for the benefit of CSX Transportation, Inc. ("CSXT") and to induce CSXT to permit Contractor on or about CSXT's property for the purposes of performing work in accordance with the Agreement dated November 23, 2010 (accepted September 8, 2011 by CSXT), between the Ohio Department of Transportation and CSXT, Contractor hereby agrees to abide by and perform all applicable terms of the Agreement, including the Special Clauses In The Proposal.

Contractor: _____

By: _____

Name: _____

Title: _____

Date: _____

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