CALL NO. 115

CONTRACT ID. 172980

KENTON COUNTY

FED/STATE PROJECT NUMBER HPP 0758(100)

DESCRIPTION BRIDGE DECK OVERLAY I 75 OVER THE OHIO RIVER 059B00046N

WORK TYPE BRIDGE DECK OVERLAY

PRIMARY COMPLETION DATE 11/15/2017

LETTING DATE: April 28,2017

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME April 28,2017. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

PLANS AVAILABLE FOR THIS PROJECT.

DBE CERTIFICATION REQUIRED - 7%

REQUIRED BID PROPOSAL GUARANTY: Not less than 5% of the total bid.

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PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 06

REVISED ADDENDUM #3: 4-26-17

CONTRACT ID - 172980

HPP 0758(100)

COUNTY - KENTON

PCN - MB05900751780
HPP 0758(100)

BRIDGE DECK OVERLAY I 75 OVER THE OHIO RIVER 059B00046N BRIDGE DECK OVERLAY I 75 OVER THE OHIO RIVER 059B00046N, A DISTANCE OF 0.50 MILES.BRIDGE DECK OVERLAY SYP NO. 06-00017.04.

GEOGRAPHIC COORDINATES LATITUDE 39:05:27.62 LONGITUDE -84:31:21.43

COMPLETION DATE(S):

COMPLETED BY 11/15/2017	APPLIES TO ENTIRE CONTRACT
COMPLETED BY 09/01/2017	APPLIES WHEN I75/I71 IS OUT OF NORMAL CONFIGURATION

CONTRACT NOTES

PROPOSAL ADDENDA

All addenda to this proposal must be applied when calculating bid and certified in the bid packet submitted to the Kentucky Department of Highways. Failure to use the correct and most recent addenda may result in the bid being rejected.

BID SUBMITTAL

Bidder must use the Department's Expedite Bidding Program available on the Internet web site of the Department of Highways, Division of Construction Procurement. (www.transportation.ky.gov/construction-procurement)

The Bidder must download the bid file located on the Bid Express website (www.bidx.com) to prepare a bid packet for submission to the Department. The bidder must submit electronically using Bid Express.

JOINT VENTURE BIDDING

Joint venture bidding is permissible. All companies in the joint venture must be prequalified in one of the work types in the Qualifications for Bidders for the project. The bidders must get a vendor ID for the joint venture from the Division of Construction Procurement and register the joint venture as a bidder on the project. Also, the joint venture must obtain a digital ID from Bid Express to submit a bid. A joint bid bond of 5% may be submitted for both companies or each company may submit a separate bond of 5%.

UNDERGROUND FACILITY DAMAGE PROTECTION

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. When prescribed in said directives, the contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom shall be contacted through their individual Protection Notification Center. Non-compliance with these directives can result in the enforcement of penalties.

SPECIAL NOTE FOR COMPOSITE OFFSET BLOCKS

Contrary to the Standard Drawings (2016 edition) the Cabinet will allow 6" composite offset blocks in lieu of wooden offset blocks, except as specified on proprietary end treatments and crash cushions. The composite blocks shall be selected from the Cabinet's List of Approved Materials.

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

Pursuant to KRS 176.085(1)(b), an agency, department, office, or political subdivision of the Commonwealth of Kentucky shall not award a state contract to a person that is a foreign entity required by KRS 14A.9-010 to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under KRS 14A.9-030 unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in KRS 14A.9-010, the foreign entity should identify the applicable exception. Foreign entity is defined within KRS 14A.1-070.

For all foreign entities required to obtain a certificate of authority to transact business in the Commonwealth, if a copy of the certificate is not received by the contracting agency within the time frame identified above, the foreign entity's solicitation response shall be deemed non-responsive or the awarded contract shall be cancelled.

Businesses can register with the Secretary of State at https://secure.kentucky.gov/sos/ftbr/welcome.aspx .

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to kytc.projectquestions@ky.gov. The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

The deadline for posting answers will be 3:00 pm Eastern Daylight Time, the day preceding the Letting. Questions may be submitted until this deadline with the understanding that the later a question is submitted, the less likely an answer will be able to be provided.

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website (www.transportation.ky.gov/contract). The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

HARDWOOD REMOVAL RESTRICTIONS

The US Department of Agriculture has imposed a quarantine in Kentucky and several surrounding states, to prevent the spread of an invasive insect, the emerald ash borer. Hardwood cut in conjunction with the project may not be removed from the state. Chipping or burning on site is the preferred method of disposal.

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

Identification of excess material sites and borrow sites shall be the responsibility of the Contractor. The Contractor shall be responsible for compliance with all applicable state and federal laws and may wish to consult with the US Fish and Wildlife Service to seek protection under Section 10 of the Endangered Species Act for these activities.

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

In the event of a dispute between the contractor and the contracting agency, Attorney General, or the Auditor of Public Accounts over documents that are eligible for production and review, the Finance and Administration Cabinet shall review the dispute and issue a determination, in accordance with Secretary's Order 11-004.

06/01/16

FEDERAL CONTRACT NOTES

The Kentucky Department of Highways, in accordance with the Regulations of the United States Department of Transportation 23 CFR 635.112 (h), hereby notifies all bidders that failure by a bidder to comply with all applicable sections of the current Kentucky Standard Specifications, including, but not limited to the following, may result in a bid not being considered responsive and thus not eligible to be considered for award:

102.02 Current Capacity Rating 102.10 Delivery of Proposals
102.8 Irregular Proposals 102.14 Disqualification of Bidders
102.9 Proposal Guaranty

CIVIL RIGHTS ACT OF 1964

The Kentucky Department of Highways, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252) and the Regulations of the Federal Department of Transportation (49 C.F.R., Part 21), issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that the contract entered into pursuant to this advertisement will be awarded to the lowest responsible bidder without discrimination on the ground of race, color, or national origin.

NOTICE TO ALL BIDDERS

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

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

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

SECOND TIER SUBCONTRACTS

Second Tier subcontracts on federally assisted projects shall be permitted. However, in the case of DBE’s, second tier subcontracts will only be permitted where the other subcontractor is also a DBE. All second tier subcontracts shall have the consent of both the Contractor and the Engineer.

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

It is the policy of the Kentucky Transportation Cabinet ("the Cabinet") that Disadvantaged Business Enterprises ("DBE") shall have the opportunity to participate in the performance of highway construction projects financed in whole or in part by Federal Funds in order to create a level playing field for all businesses who wish to contract with the Cabinet. To that end, the Cabinet will comply with the regulations found in 49 CFR Part 26, and the definitions and requirements contained therein shall be adopted as if set out verbatim herein.

The Cabinet, contractors, subcontractors, and sub-recipients shall not discriminate on the basis of race, color, national origin, or sex in the performance of work performed pursuant to Cabinet contracts. The contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of federally assisted highway construction projects. The contractor will include this provision in all its subcontracts and supply agreements pertaining to contracts with the Cabinet.

Failure by the contractor to carry out these requirements is a material breach of its contract with the Cabinet, which may result in the termination of the contract or such other remedy as the Cabinet deems necessary.

DBE GOAL

The Disadvantaged Business Enterprise (DBE) goal established for this contract, as listed on the front page of the proposal, is the percentage of the total value of the contract.

The contractor shall exercise all necessary and reasonable steps to ensure that Disadvantaged Business Enterprises participate in a least the percent of the contract as set forth above as goals for this contract.

OBLIGATION OF CONTRACTORS

Each contractor prequalified to perform work on Cabinet projects shall designate and make known to the Cabinet a liaison officer who is assigned the responsibility of effectively administering and promoting an active program for utilization of DBEs.

If a formal goal has not been designated for the contract, all contractors are encouraged to consider DBEs for subcontract work as well as for the supply of material and services needed to perform this work.

Contractors are encouraged to use the services of banks owned and controlled by minorities and women.

CERTIFICATION OF CONTRACT GOAL

Contractors shall include the following certification in bids for projects for which a DBE goal has been established. BIDS SUBMITTED WHICH DO NOT INCLUDE CERTIFICATION OF DBE PARTICIPATION WILL NOT BE ACCEPTED. These bids will not be considered for award by the Cabinet and they will be returned to the bidder.

"The bidder certifies that it has secured participation by Disadvantaged Business Enterprises ("DBE") in the amount of_____percent of the total value of this contract and that the DBE participation is in compliance with the requirements of 49 CFR 26 and the policies of the Kentucky Transportation Cabinet pertaining to the DBE Program."

The certification statement is located in the electronic bid file. All contractors must certify their DBE participation on that page. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted.

DBE PARTICIPATION PLAN

Lowest responsive bidders must submit the *DBE Plan/ Subcontractor Request*, form TC 14-35 DBE, within 5 days of the letting. This is necessary before the Awards Committee will review and make a recommendation. **The project will not be considered for award prior to submission and approval of the apparent low bidder's DBE Plan/Subcontractor Request.**

The DBE Participation Plan shall include the following:

1 Name and address of DBE Subcontractor(s) and/or supplier(s) intended to be used in the proposed project;
2 Description of the work each is to perform including the work item , unit, quantity, unit price and total amount of the work to be performed by the individual DBE. The Project Code Number (PCN), Category Number, and the Project Line Number can be found in the "material listing" on the Construction Procurement website under the specific letting;
3 The dollar value of each proposed DBE subcontract and the percentage of total project contract value this represents. DBE participation may be counted as follows; a) If DBE suppliers and manufactures assume actual and contractual responsibility, the dollar value of materials to be furnished will be counted toward the goal as follows:

- The entire expenditure paid to a DBE manufacturer;
- 60 percent of expenditures to DBE suppliers that are not manufacturers provided the supplier is a regular dealer in the product involved. A regular dealer must be engaged in, as its principal business and in its own name, the sale of products to the public, maintain an inventory and own and operate distribution equipment; and
- The amount of fees or commissions charged by the DBE firms for a bona fide service, such as professional, technical, consultant, or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, supplies, delivery of materials and supplies or for furnishing bonds, or insurance, providing such fees or commissions are determined to be reasonable and customary.

b) The dollar value of services provided by DBEs such as quality control testing, equipment repair and maintenance, engineering, staking, etc.;

c) The dollar value of joint ventures. DBE credit for joint ventures will be limited to the dollar amount of the work actually performed by the DBE in the joint venture;

4 Written and signed documentation of the bidder's commitment to use a DBE contractor whose participation is being utilized to meet the DBE goal; and

5 Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment.

UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED

Contractors must submit the signed subcontract between the contractor and the DBE contractor, the DBE's certificate of insurance, and an affidavit for bidders, offerors, and contractors from the DBE to the Division of Construction Procurement. The affidavit can be found on the Construction Procurement website. If the DBE is a supplier of materials for the project, a signed purchase order and an affidavit for bidders, offerors, and contractors must be submitted to the Division of Construction Procurement.

Changes to DBE Participation Plans must be approved by the Cabinet. The Cabinet may consider extenuating circumstances including, but not limited to, changes in the nature or scope of the project, the inability or unwillingness of a DBE to perform the work in accordance with the bid, and/or other circumstances beyond the control of the prime contractor.

CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS

If the DBE participation submitted in the bid by the apparent lowest responsive bidder does not meet or exceed the DBE contract goal, the apparent lowest responsive bidder must submit a Good Faith Effort Package to satisfy the Cabinet that sufficient good faith efforts were made to meet the contract goals prior to submission of the bid. Efforts to increase the goal after bid submission will not be considered in justifying the good faith effort, unless the contractor can show that the proposed DBE was solicited prior to the letting date. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted. One complete set and nine (9) copies of this information must be received in the office of the Division of Contract Procurement no later than 12:00 noon of the tenth calendar day after receipt of notification that they are the apparent low bidder.

Where the information submitted includes repetitious solicitation letters it will be acceptable to submit a sample representative letter along with a distribution list of the firms solicited. Documentation of DBE quotations shall be a part of the good faith effort submittal as necessary to demonstrate compliance with the factors listed below which the Cabinet considers in judging good faith efforts. This documentation may include written subcontractors' quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

The Good Faith Effort Package shall include, but may not be limited to information showing evidence of the following:

1 Whether the bidder attended any pre-bid meetings that were scheduled by the Cabinet to inform DBEs of subcontracting opportunities;
2 Whether the bidder provided solicitations through all reasonable and available means;
3 Whether the bidder provided written notice to all DBEs listed in the DBE directory at the time of the letting who are prequalified in the areas of work that the bidder will be subcontracting;
4 Whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with certainly whether they were interested. If a reasonable amount of DBEs within the targeted districts do not provide an intent to quote or no DBEs are prequalified in the subcontracted areas, the bidder must notify the DBE Liaison in the Office of Minority Affairs to give notification of the bidder's inability to get DBE quotes;
5 Whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise perform these work items with its own forces;
6 Whether the bidder provided interested DBEs with adequate and timely information about the plans, specifications, and requirements of the contract;
7 Whether the bidder negotiated in good faith with interested DBEs not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached;
8 Whether quotations were received from interested DBE firms but were rejected as unacceptable without sound reasons why the quotations were considered unacceptable. The fact that the DBE firm's quotation for the work is not the lowest quotation received will not in itself be considered as a sound reason for rejecting the quotation as unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a DBE quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy DBE goals;
9 Whether the bidder specifically negotiated with subcontractors to assume part of the responsibility to meet the contract DBE goal when the work to be subcontracted includes potential DBE participation;
10 Whether the bidder made any efforts and/or offered assistance to interested DBEs in obtaining the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal; and
11 Any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include DBE participation.

FAILURE TO MEET GOOD FAITH REQUIREMENT

Where the apparent lowest responsive bidder fails to submit sufficient participation by DBE firms to meet the contract goal and upon a determination by the Good Faith Committee based upon the information submitted that the apparent lowest responsive bidder failed to make sufficient reasonable efforts to meet the contract goal, the bidder will be offered the opportunity to meet in person for administrative reconsideration. The bidder will be notified of the Committee's decision within 24 hours of its decision. The bidder will have 24 hours to request reconsideration of the Committee's decision. The reconsideration meeting will be held within two days of the receipt of a request by the bidder for reconsideration.

The request for reconsideration will be heard by the Office of the Secretary. The bidder will have the opportunity to present written documentation or argument concerning the issue of whether it met the goal or made an adequate good faith effort. The bidder will receive a written decision on the reconsideration explaining the basis for the finding that the bidder did or did not meet the goal or made adequate Good Faith efforts to do so.

The result of the reconsideration process is not administratively appealable to the Cabinet or to the United States Department of Transportation.

The Cabinet reserves the right to award the contract to the next lowest responsive bidder or to rebid the contract in the event that the contract is not awarded to the low bidder as the result of a failure to meet the good faith requirement.

SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT

Failure by the prime contractor to fulfill the DBE requirements of a project under contract or to demonstrate good faith efforts to meet the goal constitutes a breach of contract. When this occurs, the Cabinet will hold the prime contractor accountable, as would be the case with all other contract provisions. Therefore, the contractor's failure to carry our the DBE contract requirements shall constitute a breach of contract and as such the Cabinet reserves the right to exercise all administrative remedies at its disposal including, but not limited to the following:

- Disallow credit toward the DBE goal;
- Withholding progress payments;
- Withholding payment to the prime in an amount equal to the unmet portion of the contract goal; and/or
- Termination of the contract.

PROMPT PAYMENT

The prime contractor will be required to pay the DBE within seven (7) working days after he or she has received payment from the Kentucky Transportation Cabinet for work performed or materials furnished.

CONTRACTOR REPORTING

All contractors must keep detailed records and provide reports to the Cabinet on their progress in meeting the DBE requirement on any highway contract. These records may include, but shall not be limited to payroll, lease agreements, cancelled payroll checks, executed subcontracting agreements, etc. Prime contractors will be required to complete and submit a signed and notarized affidavit (TC 18-7) and copies of checks for any monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal. These documents must be submitted within 10 days of being paid by the Cabinet.

Payment information that needs to be reported includes date the payment is sent to the DBE, check number, Contract ID, amount of payment and the check date. Before Final Payment is made on this contract, the Prime Contractor will certify that all payments were made to the DBE subcontractor and/or DBE suppliers.

The Prime Contractor should supply the payment information at the time the DBE is compensated for their work. Form to use is located at:
http://transportation.ky.gov/Construction/Pages/Subcontracts.aspx

The prime contractor should notify the KYTC Office of Civil Rights and Small Business Development seven (7) days prior to DBE contractors commencing work on the project. The contact is Melvin Bynes and the telephone number is (502) 564-3601.

Photocopied payments and completed, signed and notarized affidavit must be submitted by the Prime Contractor to: Office of Civil Rights and Small Business Development
6th Floor West 200 Mero Street
Frankfort, KY 40622

DEFAULT OR DECERTIFICATION OF THE DBE

If the DBE subcontractor or supplier is decertified or defaults in the performance of its work, and the overall goal cannot be credited for the uncompleted work, the prime contractor may utilize a substitute DBE or elect to fulfill the DBE goal with another DBE on a different work item. If after exerting good faith effort in accordance with the Cabinet's Good Faith Effort policies and procedures, the prime contractor is unable to replace the DBE, then the unmet portion of the goal may be waived at the discretion of the Cabinet.

1/27/2017

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – CARGO PREFERENCE ACT (CPA).

(REV 12-17-15) (1-16)

SECTION 7 is expanded by the following new Article:

102.10 **Cargo Preference Act – Use of United States-flag vessels.**

Pursuant to Title 46CFR Part 381, the Contractor agrees

- To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
- To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph 1 of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.
- To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

SPECIAL NOTE FOR BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS

1. DESCRIPTION. Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove the existing overlay by milling; (3) Remove residual overlay and partial depth areas by hydrodemolition; (4) Complete full-depth and partial depth repairs as directed by the Engineer; (5) Repair/replace damaged and corroded reinforcing bars; (6) Place new concrete overlay and epoxy-sand slurry in accordance with Section 606; and (7) Any other work specified as part of this contract.

All construction will be in accordance with Section 606 unless otherwise specified.

Note: The Contractor shall perform work on the upper and lower decks concurrently. Work on a phase may not begin on either deck until the previous phase has been completed on both the upper and lower decks and the traffic control is set up for the subsequent phase on both decks.

2. MATERIALS.

A. Latex Concrete. See Section 606.03.17.
B. Class "M" Concrete. Use either "M1" or "M2". See Section 601.
C. Epoxy-Sand Slurry. See Section 606.03.10.

3. CONSTRUCTION.

A. Remove Existing Overlay. In addition to Section 606.03.03, remove the existing concrete overlay by milling to the specified depth or as directed by the Engineer.

B. Partial Depth Slab Repair and Latex Overlay. After removing the existing overlay by milling, calibrate the hydrodemolition equipment to remove as much unsound material and residual existing overlay as possible without removing any areas completely through the deck. See the Special Note for Use of the Hydrodemolition Method. It is anticipated that no additional partial depth areas will remain after hydrodemolition. In the unlikely event that partial depth areas do remain, the Contractor shall remove them with hand held jackhammers weighing less than 45 lbs. in accordance with Section 606.02.10 D. Repair/Replace all damaged or severely corroded reinforcing bars prior to partial depth repair operation. The Department will not measure material removal and will consider this work incidental to the bid item "PARTIAL DEPTH

PATCHING". Mix and place Latex Modified Concrete Overlay in accordance with Sections 606.03.08 and 606.03.17.

If a partial or full depth patch extends beyond the limits of the current phase of construction, provide a temporary bulkhead or other suitable formwork to place the patch and overlay. The cost of the temporary bulkhead shall be incidental to the bid item "PARTIAL DEPTH PATCHING".

C. Surface Texturing. Texture the concrete surface of the overlay in accordance with Section 609.03.10.

4. MEASUREMENT. See Section 606 and the following:

A. Latex Modified Concrete for Overlay. The Department will measure the quantity in cubic yards using the theoretical volume as follows:

056B00046N (1736'-6" x 45'-9 1/2" x 1 3/4") x 2 = 859.0 cu yd

B. Latex Modified Concrete for Partial Depth Patching and variable thickness of Overlay. The Department will measure the quantity in cubic yards by deducting the theoretical volume of bridge deck overlay (LMC) from the total volume (as indicated by the batch quantity tickets) of concrete required to obtain the finished grade shown on the plans or established by the Engineer.

C. Remove Existing Overlay. The Department will measure the removal of the existing overlay in square yards, which shall include all labor, equipment, and material needed to complete this work.

D. Steel Reinforcement. The Department will measure any reinforcing steel necessary for the partial or full depth patch in pounds, which shall include all labor, equipment, and material needed to complete this work.

5. PAYMENT. See Section 606 and the following:

A. Latex Modified Concrete for Overlay. The Department will make payment for the Latex Modified Concrete under bid item 08534 "CONCRETE OVERLAY – LATEX" for the theoretical quantity in cubic yards.

B. Latex Modified Concrete for Partial Depth Patching and variable thickness of Overlay. The Department will make payment for the Partial Depth Patching under bid item 24094EC "PARTIAL DEPTH PATCHING". Payment will be for the quantity of cubic yards complete in place.

C. Remove Existing Overlay. The Department will make payment for the removal of the existing overlay under the bid item 08510 "REM EPOXY BIT FOREIGN OVERLAY". Payment will be for the square yards complete.

D. Steel Reinforcement. The Department will make payment for steel reinforcement, if necessary, under bid item 08151 “STEEL REINFORCEMENT-EPOXY COATED”. Payment will be at the unit price per pound.

SPECIAL NOTE FOR USE OF THE HYDRODEMOLITION METHOD

1. DESCRIPTION. Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings.

This work consists of the following to provide a uniform depth, highly bondable surface for placement of a new latex concrete overlay: (1) Furnish all labor, materials, tools, and equipment; (2) Use hydrodemolition to remove residual existing latex overlay following milling of the existing overlay; (3) Use hydrodemolition to remove unsound patches and unsound concrete in the original deck; (4) Remove and dispose of all concrete and debris (5) Provide vacuuming, shield, and water control; (5) Protect traffic on the bridge deck and below the bridge; and (6) Any other work specified as part of this contract.

2. EQUIPMENT.

A. Hydrodemolition Equipment. The hydrodemolition equipment shall consist of a filtering and pumping unit operating with a self-propelled computerized robot that utilizes a high pressure water jet capable of removing concrete to the depth specified on the plans or as directed by the Engineer and be capable of removing rust and concrete particles from reinforcing steel. The equipment shall provide a rough and bondable surface and remove all unsound concrete during the initial pass. The minimum water usage shall be 43 gal/min operating at 13,000 psi minimum. The pressure and water usage shall be calibrated to remove as much deteriorated concrete without removing any areas of the deck completely to the satisfaction of the Engineer.

B. Vacuum Cleanup Equipment. The vacuum cleanup equipment shall be equipped with fugitive dust control devices and be capable of removing wet debris and water all in the same pass. Provide equipment capable of washing the deck with pressurized water prior to the vacuum operation to dislodge all debris and slurry from the deck surface.

C. Hand Held Blast Cleaning Equipment. Hand held blast shall be either sand or water as necessary to expose fine and coarse aggregates; thoroughly clean all exposed reinforcing steel; and remove any unsound concrete or laitance layers from the proposed concrete overlay surface. If sand blasting equipment is utilized, the equipment shall have oil traps. If water blasting equipment is utilized, the equipment must be capable of delivering a minimum of 5,000 psi.

3. CONSTRUCTION.

A. General. Following removal of the existing overlay by milling, perform

hydrodemolition surface preparation over the entire top surface of both reinforced concrete bridge decks to provide a rough and bondable surface and to remove all unsound concrete during the initial hydrodemolition surface preparation pass.

B. Description. This work shall consist of furnishing the necessary labor, materials and equipment to completely remove the any residual latex concrete overlay that remains on the top surface of the bridge deck following milling in accordance with this Note and in reasonably close conformity with the grades, thickness, or sections shown on the attached detail drawings or as directed by the Engineer. This work shall include the removal of patches other than sound Portland cement concrete and all loose and unsound concrete by hydrodemolition; protection of traffic on the bridge decks and on the river below; preparation of the sound existing concrete surface; removal, forming, and concrete for full depth repairs; blast cleaning or high pressure water cleaning the existing deck prior to placement of the modified concrete overlay; and all other operations necessary to complete this work according to this Note and to the satisfaction of the Engineer.

C. Concrete Removal by Hydrodemolition

i. **General.** The total surface area of the reinforced concrete bridge deck shall be completely prepared by hydrodemolition as necessary to provide a highly roughened and bondable surface prior to placement of the proposed bridge deck overlay while removing any deteriorated and unsound concrete in the initial pass. Unsound concrete is defined as existing bridge deck concrete that is deteriorated, spalled, or determined by the Engineer to be unsound.

With the use of hydrodemolition surface preparation, the requirement to provide a minimum 1/4” clearance around all reinforcing bars that are more than 1/2” diameter exposed is waived, providing that the existing concrete is sound. The amount of steel exposed shall be kept to a minimum.

Calibration shall be required on each structure, each time Hydrodemolition is performed, and as required to achieve the results specified by the plan.

ii. **Debris and Fluid Containment.** Prior to commencement of the hydrodemolition operation, the Contractor shall submit a plan for approval to the Engineer for control and filtering of all water discharged during operation. The Contractor, at a minimum, shall block all drains on the deck and install aggregate dams every 150 feet; 6 inches high by 1 foot wide minimum, to strain runoff. The deck shall be used as a settlement

basin within itself unless an alternate method of water control, satisfactory to the Engineer and meeting the environmental requirements of any associated Regulatory Agency, is required.

The Contractor shall provide shielding, as necessary, to ensure containment of all dislodged concrete within the removal area in order to protect the public from flying debris both on and under the work site.

Cleaning shall be performed with a vacuum system capable of removing wet debris and water all in the same pass. The vacuum equipment shall be capable of washing the deck with pressurized water prior to the vacuum operation to dislodge all debris and slurry from the deck surface. Cleaning shall be done in a timely manner, before debris and water is allowed to dry on the deck surface.

4. MEASUREMENT.

Hydrodemolition. The Department will measure the quantity hydrodemolition in square yards. This includes furnishing all material, labor, and equipment necessary to perform the work as described in this Note and shown in the attached detail drawings.

5. PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Pay Unit
08550	HYDRODEMOLITION	SQ YD

The Department will consider payment as full compensation for all work required in this provision.

SPECIAL NOTE FOR EXPANSION JOINT REPLACEMENT 3/4 IN.

1. DESCRIPTION. Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing concrete and expansion devices; (3) Install armored edges, reinforcing steel with mechanical couplers, and new concrete as specified and in accordance with the attached detail drawings; (4) Install new joint seals; and (5) Any other work specified as part of this contract.

2. MATERIALS.

A. Class "M" Concrete. Use either "M1" or "M2". See Section 601.

B. Structural Steel. Use new, commercial grade steel suitable for welding. The Engineer will base acceptance on visual inspection. See Standard Drawing BJE-001, current edition.

C. Stud Anchors. The armored edge stud anchors are 3/4" x 6" embedded stud shear connectors conforming to ASTM A108, Grade 1015 (Nelson Studs or equal).

D. Steel Reinforcement. Use Grade 60 epoxy coated. See Section 602.

E. Epoxy Bond Coat. See Section 511.

F. Pre-compressed horizontal expansion joint system. See attached detail drawings and Section 807.

3. EQUIPMENT.

A. Hammer. Provide power driven hammers lighter than nominal 45 lb. class.

B. Sawing Equipment. Sawing equipment shall be a concrete saw capable of sawing concrete to the specified depth.

C. Hydraulic Impact Equipment. Hydraulic impact/skid steer type equipment with a maximum rated striking rnergy of 360 ft-lbs is permitted only in areas of concrete removal more than 1 foot away from existing beams, girders or other supporting structures that are to remain in service or more than 6 inches away from boundaries of surface areas to remain in service. The Contractor is to provide data information to the Engineer on the equipment they wish to utilize to ensure compliance with this note.

4. CONSTRUCTION.

A. Remove Existing Materials. Sawcut as shown on the attached detail drawings. Remove existing specified areas of concrete as shown on the attached detail drawings and as shown on page 5 of this Note. Remove debris and/or expansion joint filler as directed by the Engineer. Clean and leave all existing longitudinal steel reinforcement encountered in the deck and railing in place. Damaged steel

reinforcement will be repaired/replaced as directed by the Engineer at no additional cost to the Department.

To expedite construction, the Contractor has the option to cut the existing longitudinal reinforcing steel in the deck and railing rather than salvaging it. If the Contractor selects this option, new longitudinal reinforcing steel of the same size and spacing shall be drilled and secured with epoxy conforming to Section 826 Type IV. The new longitudinal reinforcing steel shall be drilled the depth recommended by the epoxy manufacturer, the new reinforcing steel shall be placed as close as practical to the existing bars, and the new bars shall have the same cover (i.e. shall be placed in the same horizontal planes as the existing bars). The new longitudinal reinforcing steel shall be provided and installed at no additional cost to the Department.

Dispose of all removed material entirely away from the job site. This work is incidental to the contract unit price for "Expansion Joint Replacement 3/4 In".

There may be 2" diameter rigid conduit running longitudinally in the railings as shown on Sheet M13. Conduits and/or wiring in the conduits that are damaged while removing railings will be repaired/replaced as directed by the Engineer at no additional cost to the Department.

Electrical junction boxes may be present in the railings within the extents of removal and replacement. See the Special Note for Electrical Junction Box Repairs.

B. **Place New Concrete and Armored Edges.** After all specified existing materials have been removed; place new armored edges to the original grade (see attached detail drawings). Form as required using removable forms; stay-in-place forms are not permitted. Place new reinforcing steel and place new Class "M" concrete to the level of the deck once the overlay has been removed and finish with broom strokes drawn transversely from railing to railing.

All new structural steel shall be cleaned and painted in accordance with requirements of Section 607.03.23, except that surfaces to come in contact with concrete are not to be painted.

Blast clean all areas of existing concrete and structural steel to come in contact with new concrete until free of all laitance and deleterious substances immediately prior to the placement of the Class "M" Concrete. The surface areas of existing concrete to come in contact with the new Class "M" Concrete are to be coated with an epoxy bond coat immediately prior to placing new concrete in accordance with Section 511. The interfaces of the new and old concrete shall be as nearly vertical and horizontal as possible.

C. **Additional Steel Reinforcement.** Furnish for replacement, steel reinforcement as shown on the Bill of Reinforcement on Sheet M49. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04 prior to pouring the new Class "M" concrete.

The Bill of Reinforcement does not include longitudinal reinforcing steel. If the Contractor chooses to cut the existing longitudinal reinforcing steel in the in the deck and/or railing as noted in Section 4.A above, the Contractor will be responsible for developing a schedule for the new longitudinal reinforcing steel.

D. **Stage Construction.** Remove and install concrete and armored edges in three stages as shown on Sheet M6. Join the armored edges as shown, field weld, and grind smooth.

E. **Expansion joint seal system.** Install a watertight expansion joint seal system according to manufacturer's recommendations. Require the presence of a competent technical representative of the manufacturer during the installation of the expansion joint system to provide aid and instruction for the satisfactory installation of the system. Prepare and submit shop drawings showing the name of the manufacturer, pertinent dimensions, plan of the joint showing the location and details of field splices, and details of the expansion joint at railings. Submit a sample of material along with the shop drawings.

Furnish an expansion joint seal system comprised of three components:

i. Cellular polyurethane foam impregnated with hydrophobic 100 percent acrylic, water-based emulsion, factory coated with highway-grade, low modulus, fuel resistant silicone.

ii. Field-applied epoxy adhesive primer.

iii. Field-injected silicone sealant bands.

Use an impregnation agent having proven non-migratory characteristics. Furnish a highway-grade, low modulus, fuel resistant silicone applied to the impregnated foam sealant at a width greater than maximum allowable joint extension and which when cured and compressed will form a bellows. Furnish expansion joint foam seal having a depth as recommended by the manufacturer.

Field install the expansion joint foam seal into manufacturer's standard field-applied epoxy adhesive. Install the expansion joint seal system recessed from the surface such that when the field-applied injection band of silicone is installed between the substrates and the foam-and silicone-bellows, the system will be 1/2 inch down from the substrate surface. The seal shall be installed as a single piece with no field splices permitted.

Furnish material capable, as a dual seal, of movements of +50 percent, -50 percent (100 percent total) of nominal material size. Execute changes in plane and direction using factory-fabricated transition assemblies. Furnish transitions warranted to be watertight at inside and outside corners through the full movement capabilities of the product.

Certify in writing that the expansion joint seal system is free in composition of any waxes or asphalts, wax compounds or asphalt compounds. Also certify in writing that the expansion joint seal system is capable of withstanding 150°F for three hours while compressed down to the minimum of movement capability dimension of the basis-of- design product (-50 percent of nominal material size) without evidence of any bleeding of impregnation medium from the material and that the same material after the heat stability test will self-expand to the maximum of movement capability dimension of the basis-of-design product (+50 percent of nominal material size) within 24 hours at room temperature 68°F.

5. MEASUREMENT.

A. Expansion Joint Replacement 3/4 In. The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint. Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, expansion joint seal, reinforcing steel, mechanical couplers, and all incidental items necessary to complete the work within the specified pay limits as specified by this Note and as shown on the attached detail drawings. Construction of joints within the concrete railings is incidental to this bid item.

6. PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

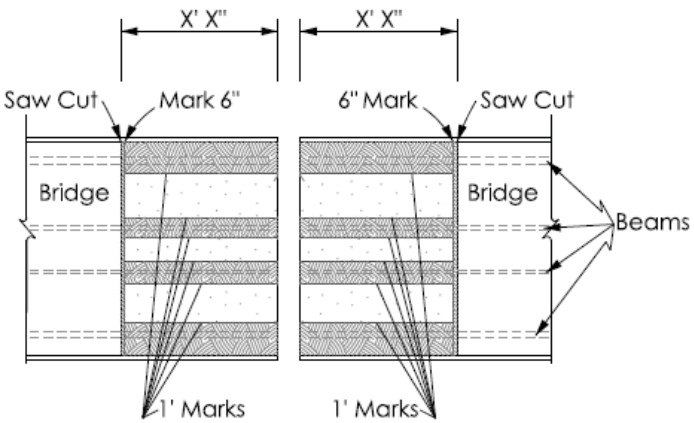
Code	Pay Item	Pay Unit
24897EC	EXPAN JOINT REPLACE 3/4 IN	Lin. Ft.

The Department will consider payment as full compensation for all work required in this provision.

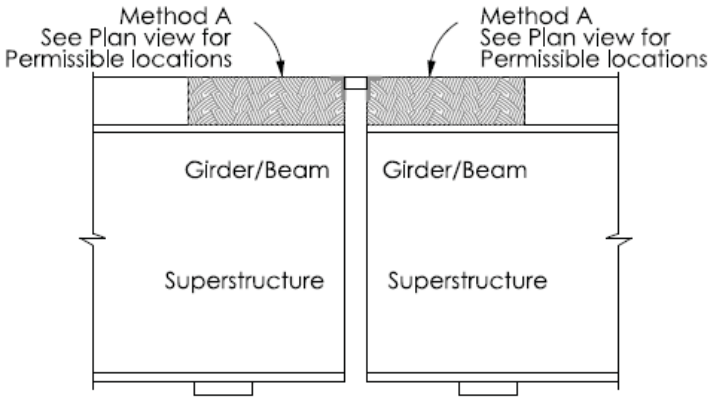
Concrete Removal Methods

Method A: Lighter than 45 lb. class hammer

Method B: Lighter than 360 ft- lb hammer
pneumatic/hydraulic/power driven



PLAN VIEW



CROSS SECTION

SPECIAL NOTE FOR TRUSS CHORD PIN GUIDE ANGLE REPAIRS

1. DESCRIPTION. Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings.

This work consists of the following repairs performed at the sliding pin connections in the upper chord in members U17-U18 and U18'-U17' and in the lower chord in L16-L17 and L17'-L16': (1) Furnish all labor, materials, tools, and equipment; (2) Jacking, if necessary, to free bronze angles for removal; (3) Remove bronze angles; (4) Place shims, if necessary, to provide specified gaps; (5) Paint new steel, exposed faying surfaces, and steel with paint damaged by the repairs; and (6) Any other work specified as part of this contract. The locations of the repairs and repair details are shown on Sheets M23 and M24.

Note: These repairs do not apply to the pins in the vertical hangers in members L17-U17 and L17'-U17'; no work shall be performed at these pins.

2. MATERIALS.

A. Shim plates. Use ASTM A304 stainless steel.

B. Bronze guide angles. Use ASTM B22 Alloy C90500 (except that a maximum lead content of 2.5 percent is allowable).

C. Cap screws. Use ASTM A307 Galvanized with hex heads.

D. Direct Tension Indicators (DTIs). Use ASTM F2437 Type 1, Grade 55 Galvanized. See Section 607.

E. Lubricant. The lubricant shall be of the solid type and shall consist of graphite, metallic substances having lubricating properties, and a lubricating binder and shall provide a coefficient of friction between the bronze guide angles and steel bearing plate not to exceed 0.10 when fully loaded.

F. Paint. See Paint note below.

3. CONSTRUCTION.

A. Replace bronze guide angles.

i. **Jacking.** The truss members will have to be jacked, wedged, or otherwise maneuvered to free the bronze guide angles for removal. The Contractor shall submit his method for freeing these bronze guide angles to the Engineer for approval before work begins. The pin cap plate shall not be left off the pin nor shall the bronze guide angles be left out while work is stopped at any pin. Work must be completed on one side of the pin connection (one set of upper and lower angles) prior to starting work on

the other side of the same pin connection (i.e. both pin cap plates may not be removed at the same time).

Should unanticipated displacements, cracking, or other damage occur, the construction shall be discontinued until corrective measures satisfactory to the Engineer are performed. Damage to the structure as a result of the Contractor's operations, including failure of a bridge component or span, shall be repaired by the Contractor at no expense to the Department.

ii. **Remove bronze guide angles.** Once the truss member is in position, remove one pin cap and the upper and lower bronze guide angles as shown on the attached detail drawings.

iii. **Preparation.** Clean and paint the affected portions of the truss chords, cap plates, bearing blocks, pins, and rods per the paint notes, below.

iv. **Install new pin guide angles**. The upper and lower guide angles shall be parallel. The Contractor may grind or shim the horizontal surface of the exterior box member web plates to ensure a close fit as shown on the Sheet M23 Section R – R – Proposed. Replace the pin cap and measure the gap between the vertical leg of the bronze guide angle and the pin cap. If the gap is smaller than 1/16”, the Contractor shall install shims per the details on Sheet M24 to achieve the specified gap. Once aligned, connect the bronze guide angles to the truss members with 3/4” dia. 2 1/2” long hex headed screws in the existing threaded holes. DTIs shall be installed on all new cap screws. Replace any missing or broken screws in the cap plates.

Repeat the process on the opposite side of the member.

The sliding surface of the horizontal leg of the replacement pin guide angles shall consist of Trepans with or without center holes with a depth at least equal to the width of the ring or diameter of the hole for proper containment of the lubricant. The recesses shall be arranged in a geometric pattern such that successive rows shall overlap in the direction of motion, and the distance between extremities of the recesses shall be closer in the direction of motion than that perpendicular to motion. The entire bearing area of all surfaces which have provision for motion shall be lubricated by means of these lubricant-filled recesses. The total area of these recesses shall comprise not less than 25 percent nor more than 35 percent of the total bearing area of the angle leg. The sliding surface shall have a surface roughness not to exceed 125 micro inches.

v. **Painting.** Once the new pin guide angles have been installed, the gaps adjusted, and the pin caps replaced, paint any areas with paint damaged during the installation per the paint notes, below.

4. PAINT.

A. Cleaning and Painting. All faying surfaces of existing steel where new steel is to be installed shall be cleaned and receive the prime coat as specified in accordance with Section 607.03.23. Level of cleaning shall be to an SSPC-SP 15 (Commercial Grade Power Tool Cleaning). All Power tools shall be equipped with vacuum shrouds and fitted with HEPA filters at their air exhausts. Maintain and operate all vacuum shrouded power tools to collect generated debris. Bare metal left by construction activities shall be cleaned and have the prime coating applied in accordance with Section 607.03.23.

B. Residual lead paint may still be on bridge. The Contractor is advised to take all necessary protective measures including worker safety and environmental regulations when performing surface preparation and other work. The Department will not consider any claims based on residual lead paint.

5. MEASUREMENT.

Pin guide angle replacement. The Department will measure the quantity of individual pin guide angles replaced as each. This includes furnishing all material, labor, and equipment necessary for jacking or otherwise releasing the connection to remove existing bronze angles, replacement of an existing angle, shimming to achieve the specified gap, installation of new screws in the cap, and painting as described in this Note and shown in the attached detail drawings.

6. PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Supplemental Description	Pay Unit
24879EC	STEEL REPAIR	PIN GUIDE ANGLE REPLACEMENT	EACH

The Department will consider payment as full compensation for all work required in this provision.

SPECIAL NOTE FOR DIAPHRAGM CRACK REPAIR

1. DESCRIPTION. Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings.

This Note applies to repairs performed at cracked diaphragms on the Kentucky approach spans. This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing bolts; (3) Field drill holes in existing diaphragms; (4) Install retrofit plates; (5) Paint new steel, exposed faying surfaces, and steel with paint damaged by the repairs; and (6) Any other work specified as part of these repairs. The locations of the repairs and repair details are shown on Sheets M27 through M29.

2. MATERIALS.

A. Steel. Use ASTM A572 Grade 50.

B. Bolts. Use ASTM F3125 Grade A325 Type 1 Galvanized.

C. Washers. Use ASTM F436 Galvanized.

D. Nuts. Use ASTM A194 Grade 2H Galvanized.

E. Direct Tension Indicators (DTIs). Use ASTM F959 Galvanized. See Section 607.

F. Paint. See Paint note below.

3. CONSTRUCTION.

A. Diaphragm crack repair procedure.

i. **Removal.** Remove and discard existing bolts that connect the diaphragm to the diaphragm connection plate. If cracks are present on both ends of a diaphragm, only remove bolts at one end of the diaphragm at a time. Once bolts have been removed from a diaphragm connection, the Contractor shall continue work at that location until installation of the retrofit plates has been completed.

ii. **Field drill holes.** Holes in the retrofit plates may be shop drilled or field drilled. Plate sizes and hole locations may need to be adjusted due to the slope or skew of the diaphragms. Proposed adjustments must be approved by the Engineer. The Contractor is responsible for verifying the geometry of the diaphragms prior to fabricating retrofit plates. The holes on the connection plate end of the plate shall exactly match the holes on the existing diaphragm connection plate. For repair Type A, the holes on the diaphragm end of the plate shall match the pattern and dimensions shown on the attached detail drawing with adjustments, as needed and as approved by the Engineer, to

account for the slope and/or skew of the diaphragm. For repair Type B, the Contractor shall utilize the hole pattern and dimensions shown on the attached detail drawings except if a hole would be within 1 1/4" of a crack (measured from the center of the hole to the crack); in that case, the hole shall be shifted laterally to maintain a minimum distance of 1 1/4" (measured from the center of the hole to the crack). The spacing of bolts shall not exceed 5 1/2" (measured from the center to center of holes). Using the retrofit plates as a template, field drill holes in the existing diaphragm.

Note: Crack measurements were taken in September 2016. Cracks may have grown subsequent to that inspection. If any cracks for repairs noted as Type A have grown such that they interfere with the bolt pattern shown for the repair Type A, use repair Type B at those locations.

iii. **Preparation.** Clean and paint the diaphragm connection plate and the portion of the diaphragm to be covered by the retrofit plates per the paint notes, below. The new retrofit plates shall be painted prior to installation.

iv. **Install retrofit plates.** Install new retrofit plates with 16 (Type A) or 20 (Type B) new 7/8" dia. A325 bolts, washers, and nuts. DTIs shall be installed on all new bolts.

If cracks are present on both ends of a diaphragm, repeat the repair procedure on the second end of the diaphragm once the first repair is complete.

v. **Painting.** Once the new retrofit plates are installed, paint any areas with paint damaged during the installation per the paint notes, below.

B. Replace broken or damaged bolts. As shown on Sheet M29, replace four broken bolts in the lower connection angle for the first diaphragm south of Pier UD9 at Girder 4 for the upper deck. The cost of furnishing and installing these bolts shall be incidental to the unit price bid for "Steel Repair – Diaphragm Crack Repair".

4. PAINT.

A. Cleaning and Painting. All faying surfaces of existing steel where new steel is to be installed shall be cleaned and receive the prime coat as specified in accordance with Section 607.03.23. Level of cleaning shall be to an SSPC-SP 15 (Commercial Grade Power Tool Cleaning). All Power tools shall be equipped with vacuum shrouds and fitted with HEPA filters at their air exhausts. Maintain and operate all vacuum shrouded power tools to collect generated debris. All new

structural steel and bare metal left by construction activities shall be cleaned and have the prime coating applied in accordance with Section 607.03.23.

B. **Residual lead paint may still be on bridge.** The Contractor is advised to take all necessary protective measures including worker safety and environmental regulations when performing surface preparation and other work. The Department will not consider any claims based on residual lead paint.

5. **MEASUREMENT.**

Diaphragm Crack Repair. The Department will measure the quantity of diaphragm crack repairs as each with no differentiation between Type A and Type B repairs. This includes furnishing all material, labor, and equipment necessary for removal of the existing bolts, field drilling holes, installing retrofit plates, and painting as described in this Note and shown in the attached detail drawings.

6. **PAYMENT.** The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Supplemental Description	Pay Unit
24879EC	STEEL REPAIR	DIAPHRAGM CRACK REPAIR	EACH

The Department will consider payment as full compensation for all work required in this provision.

SPECIAL NOTE FOR FLOORBEAM T-CONNECTION REPAIR

1. DESCRIPTION. Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing T-connections on the top flanges of floorbeams at the truss connection; (3) Install new T-connection; (4) Paint new steel, exposed faying surfaces, and steel with paint damaged by the repairs; and (5) Any other work specified as part of this contract. The locations of the repairs and repair details are shown on Sheet M20.

The T-connection repairs at Floorbeams 0 and 0' for the lower deck at the connection to the downstream truss are considered part of the floorbeam top flange repairs at those locations, and the Special Note for Floorbeam Top Flange Repairs will govern at those locations.

2. MATERIALS.

A. Steel. Use ASTM A572 Grade 50.
B. Bolts. Use ASTM F3125 Grade A325 Type 1 Galvanized.
C. Washers. Use ASTM F436 Galvanized.
D. Nuts. Use ASTM A194 Grade 2H Galvanized.
E. Direct Tension Indicators (DTIs). Use ASTM F959 Galvanized. See Section 607.
F. Paint. See Paint note below.

3. CONSTRUCTION.

A. Floorbeam T-connection removal and replacement procedure.

i. **Removal.** Remove 16 existing rivets and the T-connection and discard. Remove the fill plate between the T-connection and framing angles and retain. If the fill plate is not suitable for reuse, replace with a new fill plate of the same dimensions. Once a T-connection has been removed, the Contractor shall continue work at that location until the installation of the new T-connection has been completed.

ii. **Preparation.** Clean and paint the fill plate and the affected portions of the floorbeam top flange and framing angles per the paint notes, below. The new T-connection shall be painted prior to installation.

iii. **Install new T-connection.** Install the new T-connection, utilizing the existing holes in the floorbeam top flange and connection angles. No field drilling will be necessary or permitted. DTIs shall be installed on all new bolts.

iv. **Painting.** Once the new T-connection is installed, paint any areas with paint damaged during the installation per the paint notes, below.

4. PAINT.

A. Cleaning and Painting. All faying surfaces of existing steel where new steel is to be installed shall be cleaned and receive the prime coat as specified in accordance with Section 607.03.23. Level of cleaning shall be to an SSPC-SP 15 (Commercial Grade Power Tool Cleaning). All Power tools shall be equipped with vacuum shrouds and fitted with HEPA filters at their air exhausts. Maintain and operate all vacuum shrouded power tools to collect generated debris. All new structural steel and bare metal left by construction activities shall be cleaned and have the prime coating applied in accordance with Section 607.03.23.

B. Residual lead paint may still be on bridge. The Contractor is advised to take all necessary protective measures including worker safety and environmental regulations when performing surface preparation and other work. The Department will not consider any claims based on residual lead paint.

5. MEASUREMENT.

Floorbeam T-Connection Repair. The Department will measure the quantity of individual floorbeam T-connections replaced as each. This includes furnishing all material, labor, and equipment necessary for removal of the existing rivets and T-connections, installation of new T-connections, and painting as described in this Note and shown in the attached detail drawings.

6. PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Supplemental Description	Pay Unit
24879EC	STEEL REPAIR	FLOORBEAM T-CONNECTION REPAIR	EACH

The Department will consider payment as full compensation for all work required in this provision.

SPECIAL NOTE FOR FLOORBEAM TOP FLANGE REPAIR

1. DESCRIPTION. Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove the T-connection and the indicated portion of the existing floorbeam top flange of Floorbeam 0 and 0' for the lower deck at the connection to the downstream truss; (3) Install new top flange angle, splice plates, and T-connections; (4) Paint new steel, exposed faying surfaces, and steel with paint damaged by the repairs; and (5) Any other work specified as part of this contract. The locations of the repairs and repair details are shown on Sheet M21.

2. MATERIALS.

A. Steel. Use ASTM A572 Grade 50.
B. Bolts. Use ASTM F3125 Grade A325 Type 1 Galvanized.
C. Washers. Use ASTM F436 Galvanized.
D. Nuts. Use ASTM A194 Grade 2H Galvanized.
E. Direct Tension Indicators (DTIs). Use ASTM F959 Galvanized. See Section 607.
F. Caulk. Commercial grade 100 percent silicone.
G. Paint. See Paint note below.

3. CONSTRUCTION.

A. Floorbeam top flange and T-connection removal and replacement procedure.

i. **Removal.** Remove 16 existing rivets and the T-connection and discard. Remove the fill plate between the T-connection and framing angles and retain. If the fill plate is not suitable for reuse, replace with a new fill plate of the same dimensions. Once a T-connection has been removed, the Contractor shall continue work at that location until the installation of the new T-connection, top flange angle, and splice plates have been completed.

Remove the portion of the top flange angle shown on Sheet M21. The angle shall be removed with a plasma cutter. Grind the cut edges of the remaining top flange smooth.

ii. **Preparation.** Clean and paint the fill plate and the affected portions of the floorbeam top flange and framing angles per the paint notes, below. The

new T-connection, top flange angle, and splice plates shall be painted prior to installation.

iii. **Install new top flange and splice plates.** Install the new top flange angle and install the four bolts through the framing angles. DTIs shall be installed on all new bolts. Use the vertical leg splice plate to mark the location of the two new bolt holes through the floorbeam web and the top flange angle on the opposite side of the web. Drill the new holes and install the vertical leg splice plate. Use the horizontal splice plate to mark the location of the two new bolt holes through the existing floorbeam top flange. Drill the new holes and install the four bolts that extend through just the top flange angle and splice plate.

iv. **Install new T-connection.** The T-connections will be fabricated similar to the T-connections installed at the intermediate floorbeams (see Sheet M20 and the Special Note for Floorbeam T-Connection Repair). Due to the horizontal splice plate being located below the T-connection, the location of the holes in the web of the T-connection will differ from those at the intermediate floorbeams. The portion of the T-connection that extends beyond the top of the existing framing angles shall be trimmed. Prior to installing the new T-connection, completely fill the gap above the floorbeam top flange and below the new T-connection between the framing angles with caulk. Install the new T-connection and the existing fill plate, utilizing the existing holes in the floorbeam top flange and framing angles. No field drilling will be necessary.

v. **Painting.** Once the new T-connection, top flange angle, and splice plates are installed, paint any areas with paint damaged during the installation per the paint notes, below.

4. PAINT.

A. Cleaning and Painting. All faying surfaces of existing steel where new steel is to be installed shall be cleaned and receive the prime coat as specified in accordance with Section 607.03.23. Level of cleaning shall be to an SSPC-SP 15 (Commercial Grade Power Tool Cleaning). All Power tools shall be equipped with vacuum shrouds and fitted with HEPA filters at their air exhausts. Maintain and operate all vacuum shrouded power tools to collect generated debris. All new structural steel and bare metal left by construction activities shall be cleaned and have the prime coating applied in accordance with Section 607.03.23.

B. **Residual lead paint may still be on bridge.** The Contractor is advised to take all necessary protective measures including worker safety and environmental regulations when performing surface preparation and other work. The Department will not consider any claims based on residual lead paint.

5. **MEASUREMENT.**

Floorbeam Top Flange Repair. The Department will measure the quantity of individual floorbeam top flanges repaired as each. This includes furnishing all material, labor, and equipment necessary for removal of the existing rivets and T-connections, removal of a portion of the top flange via plasma cutting, installation of new T-connections, top flange angle, and splice plates, and painting as described in this Note and shown in the attached detail drawings.

6. **PAYMENT.** The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Supplemental Description	Pay Unit
24879EC	STEEL REPAIR	FLOORBEAM TOP FLANGE REPAIR	EACH

The Department will consider payment as full compensation for all work required in this provision.

SPECIAL NOTE FOR JACKING AND SUPPORTING BRIDGE SPAN

1. DESCRIPTION. Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Submit for approval jacking plans, procedures, drawings, and details prepared by a Professional Engineer licensed to practice in the Commonwealth of Kentucky; (3) Jack the portion as shown on the detail drawings and provide temporary supports for the duration of the remaining work; (4) Remove jacking and temporary supports when no longer required; and (5) Any other work specified as part of this contract.

2. CONSTRUCTION.

A. Working Drawings. Prior to preparation of jacking plans and working drawings, the Contractor shall verify in the field, conditions and dimensions as necessary to perform the work. The Contractor shall submit to the Engineer for approval, jacking plans, working drawings, and design calculations for the jacking and temporary supports. Such plans, drawings, and design calculations shall be prepared, sealed, and signed by an engineer who is licensed to practice in the Commonwealth of Kentucky. The content and number of sets of drawings and design calculations and times for review for temporary supports shall be the same as shown in the Standard Specifications for falsework working drawings. The jacking plan is to provide for a jacking scheme that will limit the load in the jacks to specified loads plus or minus 5%. Jacks are to be sized to provide a minimum factor of safety of 2 (two) when compared to the required working or jacking load. In addition to a minimum horizontal force of 2% of the dead load reaction of the structure, the Contractor's jacking plan is to include provisions for resisting horizontal loads that may occur as a result of the jacking operations and clearly show methods to resist those loads. The jacking system shall accommodate horizontal movements as described in the Special Note for Kentucky Approach Bearing Repairs. The jacking locations and loads, if shown on the detail drawings, may be revised by the Contractor. Jacking loads and jack locations required by the Contractor's jacking method shall be shown on the jacking and supporting plan submitted for approval. The Contractor is permitted to temporarily remove existing bracing as necessary and to replace said bracing with Contractor provided jacking frames, to install Contractor provided jacking stiffeners, or otherwise modify the structure, as necessary to implement his jacking plan, with the written approval of the Engineer. If loads are transferred to or if the spans are supported at locations other than those already having appropriate stiffeners or as shown in the detail drawings, the Contractor shall provide steel plate or angle jacking stiffeners designed by a Professional Engineer

which meet current AASHTO requirements for bearing stiffeners and which may remain in place at the conclusion of the construction. Jacking stiffeners may be welded or bolted to the joint support channel webs, but must be milled to bear on the top flange at the floorbeams. Jacking schemes which require modifications to the structure shall be considered permanent and shall remain in the structure unless otherwise shown in the contract documents or directed by the Engineer. All steel which will remain in the finished structure shall be painted in accordance with the Specifications and notes excepting that paint coats may be shop applied.

B. **Jacking and Temporary Support**. The jacking operation is to be performed in such a manner that the vertical position of the members supported by the stringers will remain in approximately the same relative position throughout the jacking operation. A maximum of 1/8" relative difference in position is allowed in a lift between any of the jacks. A redundant system of supports shall be provided during the entire jacking operation for backup should any of the jacks fail. The redundant system shall include stacks of steel plates or other steel sections added as necessary to maintain the redundant supports at each jack location within 1/8" of the jacking sill or corbels.

Each jack shall be equipped with either a pressure gage or a load cell for determining the jacking force. Pressure gages shall have an accurately reading dial at least 6" in diameter. Each jack shall be calibrated by a private laboratory within 6 months prior to use. Each jack and its gage shall be calibrated as a unit with the cylinder extension in the approximate position that it will be in at final jacking force and shall be accompanied by a certified calibration chart. Load cells shall be calibrated and provided with an indicator by which the jacking force is determined.

A force equal to the initial jacking load or the load listed in the Special Note for Kentucky Approach Bearing Repairs shall be applied to the structure by the temporary support system and the force held until all initial compression and settlement of the system is complete. The structure shall then be lifted by the jacks to the final position and the force held until the temporary support system is installed and the system is stable, before remaining work at the location being supported is begun.

Jacking operations shall be carefully controlled and monitored to ensure that the jacking loads are applied in a manner to prevent distortion and excessive stresses that would damage the structure. The superstructure shall be jacked as necessary to maintain the total vertical displacements at control points to less than 1/8" from the elevations recorded prior to jacking.

Should unanticipated displacements, cracking, or other damage occur, the construction shall be discontinued until corrective measures satisfactory to the Engineer are performed. Damage to the structure as a result of the Contractor's

operations, including failure of a bridge component or span, shall be repaired by the Contractor at no expense to the Department.

Following completion of the reconstruction, the monitored control points shall not deviate from the vertical position by more than 1/8" from the initial survey elevations or the elevations as modified by the Engineer or detail drawings.

3. MEASUREMENT.

A. Jack and Support Bridge Span. Department will not measure the quantity. Any and all work necessary to furnish all design, calculations, submittals, material, labor and equipment necessary to jack and support the bridge spans as required to repair the bridge bearings at the locations shown on the drawings are to be included in the lump sum bid for "Jack and Support Bridge Span". This item will also include providing mechanically locking jacks, tapered sole plates to provide level jacking surfaces, clamps, sliding surfaces to allow the structure to move longitudinally, lifting and lowering the bearing lines multiple times (if necessary) to ensure full support at each bearing, and verifying all bearing components are in full contact. This item shall be performed as described in this Note and on the detailed drawings.

4. PAYMENT.

A. Jack and Support Bridge Span. Payment at the contract lump sum price is for all labor, materials, manufactured assemblies, furnishing and operating jacks, plates, jacking stiffeners, jacking beams, painting, etc. and all incidental items necessary to complete the work for this bridge in accordance with this Note, the Special Note for Kentucky Approach Bearing Repairs, the Standard Specifications, and as shown on the attached detail drawings or as directed by the Engineer.

SPECIAL NOTE FOR KENTUCKY APPROACH BEARING REPAIRS

1. DESCRIPTION.

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings.

This Note applies to bearing repairs performed at several abutments and piers located on the Kentucky Approach of the Brent Spence Bridge. The existing rocker type expansion bearing assemblies are in poor condition with several deficiencies, including but not limited to the following:

- Loose pins allowing unsupported or floating/bouncing beams.
- Multiple shims.
- Concrete deterioration below the masonry plates.
- Most are anchored with pins instead of anchor bolts with nuts; some have anchor bolts with nuts.
- Severe corrosion.
- Corroded or broken pintles allowing the rocker to shift on the masonry plate.
- Excessive tilt.
- Extruding lead plates below masonry plates.

The following is the procedure to rehabilitate the bearings:

New anchor bolts and new wider masonry plates shall be installed at each bearing. Areas of poor concrete below the existing masonry plates shall be patched with rapid curing epoxy grout. All beams for the full width of the structure at a bearing line shall be simultaneously lifted and existing bearing components (top plate, pin, pin nuts and rocker) shall be cleaned, primed and re-installed if possible. If in poor condition, compromised bearing components shall be replaced in kind. Lead plates below masonry plates shall be removed, discarded, and replaced with preformed bearing pads. Existing anchor pins and anchor bolts shall be cut off flush with the top of the concrete. Beams shall be lowered and full support conditions shall be verified at each bearing. Steel shim plates shall be provided between the preformed bearing pad and the bottom of the masonry plate to provide full contact between all bearing components and eliminate unsupported conditions. The process shall be repeated until unsupported conditions are eliminated by lifting, disassembling the bearing components, adding additional shims, re-assembling the bearing components and lowering of the jacks until full support is achieved.

The locations of the repairs are shown on Sheets M30 and M31 of the detailed drawings. The jacking details are shown on Sheet M34. The repair details are shown on Sheets 32 and M33.

2. MATERIALS.

A. Steel. Use ASTM A572 Grade 50.

B. Pins. Use AAHSTO M169 (ASTM A108) or AASHTO M102 (ASTM A668).

C. Anchor Bolts. Use ASTM F1554 Grade 105 (hot-dip galvanized to ASTM A123 or ASTM A153).

D. Anchor Bolt Non-Shrink Grout. Use ASTM C1090 and meet the requirements of KYTC Standard Specification 601.03.03.

E. Washers. Use ASTM F436 (hot-dip galvanized).

F. Nuts. Use ASTM A563C (hot-dip galvanized).

G. Rapid Curing Epoxy Grout. See Epoxy Grout note below.

H. Preformed Bearing Pads. Use AASHTO 18.4.9.1**.**

I. Welds. Meet the requirements of KYTC Standard Specification 607.03.07.

J. Lead. Meet the requirements of KYTC Standard Specification 607.03.17.

K. Paint. See Paint note below.

3. CONSTRUCTION.

A. Procedure.

i. The Engineer and Contractor shall assess each bearing to approximate the number of pins, rockers, and top plates to have on hand for replacement at each bearing line. It is anticipated that most of the top plates can be re-used, but some may require replacement due to excessive wear at the recess for the pin, which will not be determined until the bearing is disassembled. In addition to the approximate number determined, additional pins, rockers, and top plates shall be available to avoid delays due to additional/unanticipated bearing component fabrication time. All existing masonry plates shall be discarded and replaced with new masonry plates. Masonry plates shall have two pintles each that will project into the bottom of the rocker. The bearing heights at several locations have been previously modified with shim plates located below the masonry plate or between the masonry plate and the rocker. At these locations, the Engineer and the Contractor shall measure the total thickness of the existing shim plates and provide new shim plates of the appropriate thickness installed between the top of the bearing pad and the bottom of the masonry plate when the rehabilitated bearing is initially installed.

ii. New pins, rockers, masonry plates and additional components shall be on site prior to lifting the structure.

iii. Core hole and grout new anchor bolts outside of existing masonry plates. Note that some of the bearings are skewed. The Contractor and the Engineer shall determine the position of the new anchor bolts and masonry plates to provide vertical rockers at 60 degrees Fahrenheit. Movement data is provided to compensate for various temperatures at the time of positioning. Note that the existing rockers may not be vertical at 60 degrees Fahrenheit and that some of the rocker edges protrudes beyond the edge of the masonry plates, which will not align the new anchor bolts with the existing anchor bolts. The new anchor bolts and masonry plates shall be positioned to provide vertical rockers by adjusting the position of new anchor bolts instead of removing the welds between the top plate and the beam flange and repositioning the top plate. The following procedure shall be used for determining the location of the new anchor bolts:

a. Determine and record ambient temperature.

b. Locate centerline of pin and project a plumb line down to place a mark on top of the existing masonry plate.

c. See the table on Sheet M34. Using the data from the table, offset the mark by the amount of adjustment per 10 degrees Fahrenheit and the corresponding direction depending on if the ambient temperature is above or below 60 degrees Fahrenheit. If the temperature is 60 degrees Fahrenheit, no adjustment is necessary.

d. The offset mark will be the centerline of the new masonry plate adjusted for temperature. Use this centerline to position the new anchor bolts. Note that the new anchor bolts are offset 1/2 inch north and south of this line as shown on Sheet M33

iv. Verify that at least one nut on the end of each rocker pin can be loosened and removed**.**

v. Place jacks and raise all bearings simultaneously (full width of the structure) at each bearing line to be lifted. Ensure that jack base plates will not interfere with new location of masonry plates (see step iii). It shall be assumed that full live load will be present when lifting the superstructure

(some lane closures may occur). The height of the lift should be minimized to allow a smooth transition across the deck joint for traffic (1/4 inch maximum since the pin can be removed and bearing can be disassembled). Mechanically lock jacks to remove the load from the hydraulic system. Jacks should be placed between the existing bearing and the edge of the substructure. Jacks shall be located to account for proposed masonry plate position, which may be closer to the edge of the substructure due to repositioning of the masonry plate to provide a vertical bearing at 60 degrees Fahrenheit. Jacking stiffeners are not required above the jacks on the beams. Tapered sole plates shall be used at the bottom of the existing beams to account for grade and to provide a horizontal (level) jacking surface. The Contractor is responsible for designing and providing the jacking system. The jacking system shall be designed and checked by an engineer registered in the Commonwealth of Kentucky. Drawings and calculations shall be submitted to the Engineer for approval. Work shall not begin until after written approval has been received from the Engineer. The existing expansion rocker type bearings were designed to carry a load of 80 kips (without impact). The jacks shall have a minimum factor of safety of 2.0 and shall have safety lock nuts for mechanical load holding. The jacking system must be capable of allowing the structure to move longitudinally due to thermal expansion and contraction (e.g. Teflon sliding surface or multiple greased steel plates). The maximum movement occurs at Pier LD12 due to fixity at Pier LD9 and a movement length of 225.9 feet, requiring the jacking system to allow for 3/16 inch of movement per 10 degrees Fahrenheit temperature change during the time the structure is supported on jacks. Movement at other piers or abutments will be less. See the Special Note for Jacking and Supporting Bridge Span for additional information.

vi. Remove the nut at end of the rocker pin and remove the pin. Some pins may be bonded to the top plate and rocker due to heavy corrosion and may require heat and/or impact to remove.

vii. Remove rocker and shims (if present). Discard shims.

viii. Remove and discard anchor bolt nuts (if present), masonry plate, lead bearing pads, and shims (if present). Cut off existing anchor bolts/pins flush with top of concrete bearing seat.

ix. Check the condition of the concrete bridge seat below and adjacent to the existing masonry plate. If deteriorated or in poor condition, remove loose concrete and patch with rapid curing epoxy grout to provide a smooth, level surface for the new, oversized preformed bearing pad and masonry plate.

x. Abrasively clean the pin, pin nuts, rocker and top plate including recess in top plate for pin (top plate still attached to beam) to SSPC-SP 10. Salvage all pieces unless the Engineer determines existing components are compromised. Verify condition of recesses in bottom of rocker to engage pintles projecting from masonry plates. Recesses should provide a tight fit around pintles (1 9/16 inch diameter recess for 1 1/2 inch diameter pintle). If recesses will not provide a tight fit, replace the rockers. Verify the condition of the top plate recess for the pin. If the recess in the top plate is worn and will not provide a tight fit for the pin, remove the welds attaching the top plate to the beam, remove the top plate, provide a new top plate and weld the new top plate to the beam. In addition, replace all compromised bearing components with new components.

xi. Coat all salvaged and new components with a prime coat of paint.

xii. Install new top plates (if necessary).

xiii. Install new preformed bearing pads.

xiv. Install new masonry plates with new pintles.

xv. Install new/existing rockers.

xvi. Lubricate pins with waterproof grease per the requirements of 607.03.08 D and install new/existing pins.

xvii. Lower jacks.

xviii. Verify that the gaps between the top plate and pin, pin and rocker, and rocker and masonry plate are all tight. Tight is defined as all bearing component surfaces in full contact (i.e. the pin should not be able to be turned by hand and the rocker should not be loose, allowing back and forth movement by hand). Verification shall be witnessed by the Engineer. If any of the gaps are loose, raise the entire bearing line (full width of the structure), remove the bearing components at the loose bearing and place the

necessary thickness of shim plates between the top of the bearing pad and the bottom of the masonry plate.

xix. Re-assemble bearing components and lower jacks.

xx. Repeat steps xvii and xviii until no gaps or loose components are present.

xxi. Tighten pin nuts.

xxii. Melt and pour lead in anchor bolt holes in masonry plates around anchor bolts as per the requirements of Section 607.03.17. Install anchor bolt washers and nuts. Tighten nuts.

4. PAINT.

A. Cleaning and Painting. All surfaces of the new or existing components of the bridge bearings (top plates, pins, rockers, masonry plates and shims) shall be cleaned and receive a prime coat as specified in accordance with Section 607.03.23. Note that the existing top plates, if in good condition, will not be removed and will be attached to the existing beams. The existing paint system is unknown. Level of cleaning shall be to an SSPC-SP 10 (Near White Metal Blast Cleaning). All power tools shall be equipped with vacuum shrouds and fitted with HEPA filters at their exhausts. Maintain and operate all vacuum shrouded power tools to collect generated debris.

At locations where field welds are performed to attach new top plates, the weld and surrounding area of compromised existing paint and shop applied prime coat shall be cleaned to SSPC-SP 10 and field primed in accordance with Section 607.03.23.

B. Residual lead paint may still be on the bridge. The Contractor is advised to take all necessary protective measures including worker safety and environmental regulations when performing surface preparation and other work. The Department will not consider any claims based on residual lead paint.

5. RAPID CURE EPOXY GROUT.

A. Product. REZI-WELD 3/2 Epoxy Grout-Patch Kit by W.R. Meadows or an Engineer approved equal meeting the requirements in section 5.B.

B. Materials. Epoxy grout shall be a three component moisture-intensive kit consisting of an epoxy resin, activator and select graded premixed aggregates and possess the following characteristics:

i. Compressive Strength, ASTM D695
1 day: 8,000 psi
3 days: 11,000 psi
7 days: 13,000 psi

ii. Flexural Strength, ASTM D790 (7 days)
4,065 psi

iii. Water Absorption, ASTM D570 (24 hours)
0.09%

iv. Bond Strength, ASTM C882 (7 day bond strength to concrete)
4,034 psi

C. Execution. Storage, handling, surface preparation, forming, mixing, application and curing shall be according to the manufacturer's recommendations.

6. MEASUREMENT.

Jack and Support Bridge Span. See the Special Note for Jacking and Supporting Bridge Span.

Bearing Replacement – Replace Bearing Pad, Masonry Plate, and Anchor Bolts. The Department will measure the quantity as each. This will include one preformed bearing pad, one masonry plate with pintles, and two anchor bolts with washers and nuts. Determining the position of the new anchor bolts, coring the holes for the anchor bolts, and installing the anchor bolts with non-shrink grout will also be included in this item. This item includes furnishing all material, labor, and equipment necessary to remove existing lead plates, shims (if present), and masonry plates, cut off existing anchor pins/bolts, provide and install new preformed bearing pads, masonry plates with pintles, and anchor bolts, washers, nuts, non-shrink grout, and lead around the anchor bolt holes as described in this Note and on the detailed drawings.

Bearing Replacement – Pin Replacement. The Department will measure the quantity of pins that are replaced as each. This will include one pin and two recessed nuts. The quantity of pins included on the plans is an estimate and is to be used for bidding purposes to establish a unit price. Additional pins may be required. The Contractor and Engineer shall collaborate and determine the quantity of additional pins necessary. Unused pins at the completion of the project will be paid for at the contract unit price. Unused pins shall become the property of KYTC and shall be delivered to the nearest County Maintenance Barn. This item includes providing, installing, and lubricating new pins as described in this Note and on the detailed drawings.

Bearing Replacement – Rocker Replacement. The Department will measure the quantity of rockers that are replaced as each. This will include one rocker with a recess at the top for the pin and two recesses in the bottom for pintles. The quantity of rockers included on the plans is an estimate and is to be used for bidding purposes to establish a unit price. Additional rockers may be required. The Contractor and Engineer shall collaborate and determine the quantity of additional rockers necessary. Unused rockers at the completion of the project will be paid for at the contract unit price. Unused rockers shall become the property of KYTC and shall be delivered to the nearest County Maintenance Barn. This item includes providing and installing new rockers as described in this Note and on the detailed drawings.

Bearing Replacement – Top Plate Replacement. The Department will measure the quantity of top plates that are replaced as each. This will include removal of the existing top plate welds, removal of the existing top plate, providing a new top plate, and welding the new top plate to the existing beam. The bottom of the top plate shall have a recess for the pin. The quantity of top plates included on the plans is an estimate and is to be used for bidding purposes to establish a unit price. Additional top plates may be required. The Contractor and Engineer shall collaborate and determine the quantity of additional top plates necessary. Unused top plates at the completion of the project will be paid for at the contract unit price. Unused top plates shall become the property of KYTC and shall be delivered to the nearest County Maintenance Barn. This item includes removing existing welds and top plates and providing new top plates welded to the existing beams as described in this Note and on the detailed drawings.

Bearing Replacement – Install Shim. The Department will measure the quantity of shims that are provided as each. This will include one shim of various thicknesses. The quantity of shims included on the plans is an estimate and is to be used for bidding purposes to establish a unit price. Additional shims may be required. The Contractor and Engineer shall collaborate and determine the quantity and thickness of additional shims necessary. Unused shims at the completion of the project will be paid for at the contract unit price. Unused shims shall become the property of KYTC and shall be delivered to the nearest County Maintenance Barn. This item includes providing and installing shims as described in this Note and on the detailed drawings.

Bearing Repair – Clean and Paint. The Department will measure the quantity of cleaning and painting all the components of each bearing as each. This item will include removing the existing pin nuts, pins, and rockers, re-installing the existing pin nuts, lubricated pins, and rockers or installing new pin nuts, lubricated pins, and rockers as necessary, assessing the condition of the existing bearing components to determine re-use or replacement, and cleaning and painting all the new or existing bearing components as described in this Note and on the detailed drawings.

Grout. The Department will measure the quantity of rapid cure epoxy grout that is placed below the new bearing pads to fill areas of removed deteriorated concrete at the locations described in this note and on the detailed drawings by the cubic yard. The quantity of rapid cure epoxy grout included on the plans is an estimate and is to be used for bidding purposes to establish a unit price. More or less rapid cure epoxy grout may be required. The Contractor and Engineer shall collaborate and determine the quantity and thickness of grout necessary. The Contractor will be paid for the in-place quantity used on the project. Unused rapid cure epoxy grout at the completion of the project will remain the Contractor's property and will not be paid for. (Note that non-shrink grout used to install the anchor bolts is included with Bearing Replacement – Bearing Pad, Masonry, Plate and Anchor Bolts for payment.)

7. PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Supplemental Description	Pay Unit
08435	JACK AND SUPPORT BRIDGE SPAN		L.S.
21969NN	BEARING REPLACEMENT	REPLACE BEARING PAD, MASONRY PLATE, AND ANCHOR BOLTS	EACH
21969NN	BEARING REPLACEMENT	PIN REPLACEMENT	EACH
21969NN	BEARING REPLACEMENT	ROCKER REPLACEMENT	EACH
21969NN	BEARING REPLACEMENT	TOP PLATE REPLACEMENT	EACH
21969NN	BEARING REPLACEMENT	INSTALL SHIM	EACH
23853EC	BEARING REPAIR	CLEAN AND PAINT	EACH
23911EC	GROUT		CU YD

The Department will consider payment as full compensation for all work required in this provision.

SPECIAL NOTE FOR ELECTRICAL JUNCTION BOX REPAIRS

1. DESCRIPTION. Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Inspect junction boxes for severe damage that consists of broken enclosures, damaged conduit fittings at enclosures, and damaged or missing cover plates; (3) Replace damaged components with new NEMA 4X enclosures, junction box covers, gaskets and screws as required to make the existing electrical conduit system weatherproof and safe by adhering to NFPA 70 and KYTC standards; and (4) Any other work specified as part of this contract.

2. MATERIALS.

A. Junction box covers. 316 Stainless Steel sized to match existing.

B. Enclosures. Rated NEMA 4X, 316 Stainless Steel per NFPA 70, and sized to match existing dimensions.

C. Cap screws. 316 Stainless Steel. Size as required by enclosure manufacturer.

D. Conduits. ANSI C80.1 and UL 6 Galvanized rigid metal conduit.

E. Fittings. Per NFPA 70, ANSI C80.1 and UL 6.

3. CONSTRUCTION.

A. Replace junction boxes.

i. **Inspection.** Field verify the number of broken junction boxes, conduit bodies, conduit fittings, and missing cover plates. A broken junction box is considered to be a breach in the enclosure that allows the environment to enter the enclosure. Corrosion or minor rusting is not to be considered damage and does not require replacement.

Junction boxes that are within the limits of removal of the concrete railing at locations where joints are being replaced shall be replaced, regardless of the condition of the existing junction box. See Sheet M13 for details of the railing removal at locations where joints are being replaced.

ii. **Installation.**

a. Installation of new junction boxes to existing concrete shall be done with HILTI epoxy anchoring system and stainless steel hardware or other approved anchoring system.

b. Installation of new junction boxes to existing bridge steel shall be with stainless steel, Grade 316, 1-5/8" c-channel type structural support components and matching hardware as required.

c. Installation of new covers for existing junctions boxes shall utilize a minimum of two 3/8" stainless steel hex bolts and washers.

4. MEASUREMENT.

Junction Box Replacement. The Department will measure the junction box replacements as each. This includes furnishing all material, labor, and equipment necessary for removal of the existing boxes and installation of the new boxes as described in this Note.

Junction Box Cover Replacement. The Department will measure the junction box cover replacements as each. This includes furnishing all material, labor, and equipment necessary for removal of the existing covers and installation of the new covers as described in this Note.

5. PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Supplemental Description	Pay Unit
04810	ELECTRICAL JUNCTION BOX	REPLACE JUNCTION BOX	EACH
04810	ELECTRICAL JUNCTION BOX	REPLACE JUNCTION BOX COVER	EACH

The Department will consider payment as full compensation for all work required in this provision.

SPECIAL NOTE FOR RAMP B RETAINING WALL REPAIRS

1. DESCRIPTION. Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Placing geotextile fabric and filling voids created by fill eroding from behind the wall; (3) Cleaning two catch basins; (4) Replacing Paved Ditch Type 1, modified damaged by erosion; (5) Constructing new Paved Ditch Type 1, Flume Inlet Type 1, and curb to direct water to an existing catch basin; (6) Patching spalls on the wall facing; (7) Removing vegetation from the face of the wall; (8) Aligning displaced headers; and (9) Any other work specified as part of this contract.

2. MATERIALS.

A. Concrete. See Section 601. Use Class "AA".
B. Steel Reinforcement. See Section 602. Use Grade 60.
C. Crushed Aggregate. See Section 805. Use No. 57 gradation.
D. Geotextile Fabric. See Section 843. Use Type IV.
E. Epoxy. See Section 826. Use Type IV.

3. CONSTRUCTION.

A. Fill voids.

i. **Removal.** In areas where fill has eroded from behind the face of the retaining wall, remove any vegetation, debris, and any items other than existing backfill.

ii. **Preparation.** Place geotextile on the back side of the front face of the retaining wall prior to placing backfill.

iii. **Place fill.** Place crushed stone aggregate to completely fill all voids behind the back face of the retaining wall. Fill to 6 inches below the top face of the wall.

B. Clean catch basins. Remove and dispose of all debris in the two catch basins identified on Sheet M42. If necessary, use pressurized water not to exceed 3,000 psi. Continue cleaning until water freely flows through the outlet on the face of the retaining wall to the satisfaction of the Engineer.

C. Replace Paved Ditch Type 1, modified.

i. Removal. Completely remove approximately 32 feet of paved ditch that has been damaged by the erosion of the backfill from behind the face of the wall.

ii. Construction. Following Standard Drawing RDD-001-06, construct approximately 32 feet of new Paved Ditch Type 1 with the exception that the bottom of the paved ditch is 1'-0" wide rather than 2'-0" as shown in the standard drawing.

D. Construct new Paved Ditch Type 1, Flume Inlet Type 1, and curb. In order to direct runoff from the at-grade ramp pavement to the catch basin located immediately behind the face of the retaining wall, construct approximately 27 feet of new Paved Ditch Type 1 per Standard Drawing RDD-001-06 and a new Flume Inlet Type 1 per Standard Drawing RDD-020-07. Construct approximately 45 feet of Standard Integral Curb per Standard Drawing RPM-100-10 along the west edge of the existing pavement. Drill and epoxy the 2'-3" long bent #4 reinforcing steel into the existing pavement at the spacing shown on the standard drawing.

E. Patch spalls on the face of the retaining wall. See the Special Note for Pier Concrete Repairs for procedures and pay items.

F. Remove vegetation from wall facing. Completely remove vegetation from the face of the wall for the full length of the wall. After cutting vegetation, spray with an appropriate herbicide approved by the Engineer to inhibit new growth.

G. Realign crib wall headers. Three of the headers for the crib wall are misaligned. Prior to placing new backfill, realign the headers to be flush with the remaining headers. Headers above the misaligned headers may need to be lifted to allow the headers to be aligned.

5. MEASUREMENT.

Crushed Aggregate Size No 57. See Section 805. The Department will measure the quantity of crushed aggregate placed in tons. Removal of vegetation and debris behind the face of the retaining wall will be incidental to this bid item.

Flume Inlet Type 1. The Department will measure the quantity of Flume Inlet Type 1 constructed as each. This includes furnishing all material, labor, and equipment necessary to construct a Flume Inlet Type 1 as described in this Note, on Standard Drawing RDD-020-07, and as shown in the attached detail drawings.

Paved Ditch Type 1. The Department will measure the quantity of Paved Ditch Type 1 constructed in square yards. This includes furnishing all material, labor, and equipment necessary for to remove existing Paved Ditch Type 1, to excavate for new construction, and to construct a Flume Inlet Type 1 as described in this Note, on Standard Drawing RDD-001-06, and as shown in the attached detail drawings.

Fabric-Geotextile Type IV. See Section 843. The Department will measure the quantity of geotextile fabric placed in square yards.

Concrete Class "AA". See Section 608. The Department will measure the quantity of concrete placed in cubic yards.

Steel Reinforcement. See Section 602. The Department will measure the quantity of steel reinforcement placed in pounds.

Concrete Patching Repair. See the Special Note for Bridge Pier Concrete Patching for measurement and pay item.

Clean Catch Basin. The Department will measure the quantity of individual catch basins cleaned as each. This includes furnishing all material, labor, and equipment necessary for to remove all debris from a catch basin until water flows to the outlet pipe at the face of the retaining wall to the satisfaction of the Engineer as described in this Note, on Standard Drawing RDD-001-06, and as described in this Note and as shown in the attached detail drawings.

Remove Vegetation. The Department will measure the removal of vegetation from the face of the retaining wall as a lump sum. This includes furnishing all material, labor, and equipment necessary to remove vegetation and spray with an herbicide approved by the Engineer as described in this Note and as shown in the attached detail drawings.

Align Crib Wall Header. The Department will measure the alignment of an individual crib wall header as each. This includes furnishing all material, labor, and equipment necessary to properly align a crib wall header, including lifting and/or jacking, as needed, as described in this Note and as shown in the attached detail drawings.

6. PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Supplemental Description	Pay Unit
00071	CRUSHED AGGREGATE SIZE NO 57		TON
01690	FLUME INLET TYPE 1		EACH
02157	PAVED DITCH TYPE 1		SQ YD
02599	FABRIC-GEOTEXTILE TYPE IV		SQ YD
08104	CONCRETE CLASS “AA”		CU YD
08150	STEEL REINFORCEMENT		LB
22146EN	CONCRETE PATCHING REPAIR		SQ FT
23055N	REMOVE	REMOVE VEGETATION	LS
24662EC	CLEAN	CLEAN CATCH BASIN	EACH
24898EC	ALIGN CRIB WALL HEADER		EACH

The Department will consider payment as full compensation for all work required in this provision.

SPECIAL NOTE FOR BRIDGE PIER CONCRETE PATCHING

1. DESCRIPTION. Perform all work in accordance with the Department's 2012 Standard Specifications, and applicable Supplemental Specifications, the attached detail drawings, and this Note. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Sound potentially spalled/delaminated areas; (3) Remove existing spalled/delaminated concrete; (4) Prepare the existing surface for concrete patching; (5) Place hook fasteners and welded wire fabric over surfaces to be repaired (where applicable); (6) Apply concrete patching as specified by this Note and as shown on the attached detail drawings; (7) Finish and cure the new concrete patches; and (8) Any other work specified as part of this contract. See Sheets M35 through M41.

This Note also applies to concrete patching on the retaining wall along Ramp B. See the attached detail drawing and the Special Note for Crib Wall Repairs for additional information. See Sheets M42 and M43.

2. MATERIALS.

A. Concrete. Approved concrete product for vertical and overhead repair patch.

B. Steel Reinforcement. Use Grade 60. See Section 602.

C. Welded Steel Wire Fabric (WWF). Conform to Section 811.

D. Hook Fasteners. Use commercial grade galvanized hook fasteners. Minimum 3/16” diameter.

3. CONSTRUCTION.

A. Concrete Removal and Preparation. The Contractor shall locate and remove all loose, spalled, deteriorated, and delaminated concrete as shown on the attached detail drawings and as directed by the Engineer. Sounding shall be used to locate delaminated areas. Care shall be exercised not to damage areas of sound concrete or reinforcing steel during concrete removal operations. Unless specifically *directed by the Engineer*, depth of removal shall not exceed 6 inches. Concrete removal shall be in accordance with a sequence approved by the Engineer.

Concrete removal shall be accomplished by chipping with hand picks, chisels or light duty pneumatic or electric chipping hammers (not to exceed 15 lbs.) If sound concrete is encountered before existing reinforcing steel is exposed, the surface shall be prepared and repaired without further removal of the concrete. When corroded reinforcing steel is exposed, concrete removal shall continue until there is a minimum 3/4 inch clearance around the exposed, corroded reinforcing bar. Care shall be taken to not damage bond to adjacent non-exposed reinforcing steel during concrete removal processes.

The perimeter of all areas where concrete is removed shall be tapered at an approximately 45° angle, except that the outer edges of all chipped areas shall be saw cut to minimum depth of 3/4 inch to prevent featheredging unless otherwise approved by the Engineer.

After all deteriorated concrete has been removed; the repair surface to receive concrete patching shall be prepared by abrasive blast cleaning. Abrasive blast cleaning shall remove all fractured surface concrete and all traces of any unsound material or contaminants such as oil, grease, dirt, slurry, or any materials which could interfere with the bond of freshly placed concrete.

The Contractor shall dispose all removed material off State Right Of Way in an approved site.

B. **Steel Reinforcement.** All corroded reinforcing steel exposed during concrete removal shall have corrosion products removed by abrasive grit blasting or wire brush, whichever is more appropriate. Furnish for replacement, as directed by the Engineer, additional linear feet of steel reinforcing bars 5/8" diameter by 20-foot lengths (bar mark S50 on the Bill of Reinforcement). Place these bars in areas deemed by the Engineer to require additional reinforcement. Field cutting and bending is permitted. Deliver unused bars to the nearest County Maintenance Barn. Payment will be made in accordance with Section 602.

Reinforcing steel displaying deep pitting or loss of more than 20 percent of cross-sectional area shall be removed and replaced. Such bars shall be placed in accordance with the recommendations of ACI 506R, Sections 5.4 and 5.5. In particular, bars shall not be bundled in lapped splices, but shall be placed such that the minimum spacing around each bar is three times the maximum aggregate size to allow for proper encapsulation with concrete patching.

Intersecting reinforcing bars shall be tightly secured to each other using tie wire and adequately supported to minimize movement during concrete placement.

Welded wire fabric (WWF) shall be provided at each repair area larger than 1 square foot if the depth of the repair exceeds 3 inches from the original dimension of the repaired member. Sheets of adjoining WWF shall be lapped by at least one and one-half spaces at all intersections, in both directions, and be securely fastened. WWF fabric shall be supported no closer than 1/2 inch to the prepared concrete surface and shall have a minimum concrete cover of 1.5 inches.

WWF shall be fastened to preset anchors on a grid not more than 12 inches square. Large knots of tie wire which could result in sand pockets and voids during patching shall be avoided.

C. **Hook Fasteners.** Hook fasteners shall be positioned at the spacing as stated above or as directed by the Engineer. Any given area shall have a minimum of four anchors. The WWF shall not move or deform excessively during concrete patching. Maximum hook fastener spacing shall not exceed 2 feet on a grid pattern over the entire repair area.

Hook fasteners shall be of commercial grade galvanized steel with a minimum diameter of 3/16". They may be mechanically set or grouted, as approved by the Engineer.

The Department will randomly select hook fasteners to be tested to verify pullout force is sufficient. If any anchors fail to meet the minimum acceptable pullout value, corrective measures shall be taken by the Contractor and further testing will be conducted.

D. **Concrete Patching.** Place and finish the new concrete for the patching area in accordance with the manufacturer's recommendations, as shown on the attached detail drawings, or as directed by the Engineer. The Engineer shall approve the Contractor's method of placing and consolidating the concrete prior to the beginning of this operation.

E. **Curing.** On completion of finishing operation, patching concrete shall immediately be prevented from drying out and cracking by fogging, wetting, and/or any appropriate method approved by the Engineer. Curing shall continue for duration recommended by the product manufacturer.

Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize himself with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department. Quantities given are approximate. The quantity for "Concrete Patching Repair" shall be bid with the contingency that quantities may be increased, decreased, or eliminated by the Engineer. Dispose of all removed material entirely away from the job site as approved by the Engineer. This work is incidental to the contract unit price for "Concrete Patching Repair".

4. MEASUREMENT

A. **Concrete Patching.** The Department will measure the quantity per square feet of each area restored. Measurement will not be made for areas where sounding does not locate spalled/delaminated concrete.

B. **Steel Reinforcement.** See Section 602.

C. **Welded Wire Fabric & Hook Fasteners.** Welded wire fabric and hook fasteners will not be measured for payment but shall be considered incidental to "Concrete Patching Repair".

5. PAYMENT

A. Concrete Patching Repair. Payment at the contract unit price per square feet is full compensation for the following: (1) Furnish all labor, materials, tools, equipment; (2) Sound potentially spalled/delaminated areas; (3) preparation of specified piers including removing and disposing of specified existing materials; (4) place, finish, and cure new concrete patches; and (5) all incidentals necessary to complete the work as specified by this Note and as shown on the attached detail drawings.

B. Steel Reinforcement. See Section 602.

The Department will consider payment as full compensation for all work required by these notes and detail drawings.

SPECIAL NOTE FOR OHIO APPROACH EXPANSION JOINT REPLACEMENT

1. DESCRIPTION. Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the KYTC and ODOT Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications. References to the ODOT C&MS are to the Ohio Department of Transportation's 2016 Construction & Material Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing concrete and expansion devices; (3) Install armored edges, reinforcing steel with mechanical couplers, and new concrete as specified and in accordance with the attached detail drawings; (4) Install new joint seals; and (5) Any other work specified as part of this contract.

Work permored above or adjacent to railroads shall be coordinated with the Railroad. See the Railroad Coordination note for additional information.

2. MATERIALS.

A. Class "M" Concrete. Use either "M1" or "M2". See Section 601.

B. Structural Steel. See ODOT Standard Drawing EXJ-4-87. Unless otherwise specified, use Use ASTM A709 Grade 50.

C. Stud Anchors. The armored edge stud anchors are 5/8" x 10" embedded stud shear connectors conforming to ASTM A108, Grade 1015 (Nelson Studs or equal).

D. Steel Reinforcement. Use Grade 60 epoxy coated. See Section 602.

E. Epoxy Bond Coat. See Section 511.

F. Neoprene Strip Seals. See attached detail drawings and Section 807.

3. EQUIPMENT.

A. Hammer. Provide power driven hammers lighter than nominal 45 lb. class.

B. Sawing Equipment. Sawing equipment shall be a concrete saw capable of sawing concrete to the specified depth.

C. Hydraulic Impact Equipment. Hydraulic impact/skid steer type equipment with a maximum rated striking rnergy of 360 ft-lbs is permitted only in areas of concrete removal more than 1 foot away from existing beams, girders or other supporting structures that are to remain in service or more than 6 inches away from boundaries of surface areas to remain in service. The Contractor is to provide data information to the Engineer on the equipment they wish to utilize to ensure compliance with this note.

4. CONSTRUCTION.

A. Remove Existing Materials. Sawcut as shown on the attached detail drawings. Remove existing specified areas of concrete and armored edges as shown on the attached detail drawings and as shown on page 4 of this Note. Remove debris

and/or expansion joint filler as directed by the Engineer. Clean and leave all existing longitudinal steel reinforcement encountered in the deck and railing in place. Damaged steel reinforcement will be repaired/replaced as directed by the Engineer at no additional cost to the Department.

At some of the skewed joints, the transverse reinforcing steel is not parallel to the joint. At these locations, salvage and reuse both the longitudinal and transverse reinforcing steel. See the table on Sheet M18.

To expedite construction, the Contractor has the option to cut the existing longitudinal reinforcing steel in the deck and railing rather than salvaging it. If the Contractor selects this option, new longitudinal reinforcing steel of the same size and spacing shall be drilled and secured with epoxy conforming to Section 826 Type IV. The new longitudinal reinforcing steel shall be drilled the depth recommended by the epoxy manufacturer, the new reinforcing steel shall be placed as close as practical to the existing bars, and the new bars shall have the same cover (i.e. shall be placed in the same horizontal planes as the existing bars). The new longitudinal reinforcing steel shall be provided and installed at no additional cost to the Department. The Contractor shall not cut any transverse reinforcing steel that is skewed relative to the joint without prior approval of the Engineer.

Any electrical conduits or junction boxes encountered in the railings shall be protected during removal. Damage to electrical conduits or junction boxes by the Contractor shall be repaired to the satisfaction of the Engineer at the Contractor's expense.

Dispose of all removed material entirely away from the job site. This work is incidental to the contract unit price for "Expansion Joint Replacement" of the applicable width.

At joint E15C, remove and store the crash attenuator prior to Phase 2 – Removal. Reinstall following Phase 2 – Construction prior to progressing to Phase 3.

B. **Place New Concrete and Armored Edges.** After all specified existing materials have been removed; install any new steel as shown on the attached detail drawings and place new armored edges and retainers to the original grade. For joints that use frame rails (Section E – E on Sheet M16), see the temporary support detail on Sheet M13. Form as required using removable forms; stay-in-place forms are not permitted. Place new reinforcing steel and place new Class "M" concrete to match the existing grade and crown details, if applicable, and finish with broom strokes drawn transversely from railing to railing.

During installation of the support/armor for the superstructure side of the expansion joint seal, the seating of the girders on bearings shall be carefully observed to assure that positive bearing is maintained. Proper vertical fit of the

support/armor on the girders shall be achieved by positioning of the bevel fill plates rather than by clamping forces.

All new joint armor and retainers shall be metalized per ODOT C&MS Section 516. Miscellaneous structural steel shall be galvanized. Damage to the coatings by welding or other construction activities shall be repaired per ASTM A780.

Blast clean all areas of existing concrete and structural steel to come in contact with new concrete until free of all laitance and deleterious substances immediately prior to the placement of the Class "M" Concrete. The surface areas of existing concrete to come in contact with the new Class "M" Concrete are to be coated with an epoxy bond coat immediately prior to placing new concrete in accordance with Section 511. The interfaces of the new and old concrete shall be as nearly vertical and horizontal as possible.

C. **Additional Steel Reinforcement.** Furnish for replacement, steel reinforcement as shown on the Bill of Reinforcement on Sheet M49. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04 prior to pouring the new Class “M” concrete.

The Bill of Reinforcement does not include longitudinal reinforcing steel. If the Contractor chooses to cut the existing longitudinal reinforcing steel in the in the deck and/or railing as noted in Section 4.A above, the Contractor will be responsible for developing a schedule for the new longitudinal reinforcing steel.

D. **Stage Construction.** Remove and install concrete and armored edges in stages as shown on Sheets M7 through M11 and Sheet M14. Join the armored edges as shown, field weld, and grind smooth.

E. **Preformed Neoprene Strip Seal.** Place neoprene strip seals as recommended by the manufacturer and in accordance with Section 609.03.04 (E) and the attached detail drawings. The seal shall be installed in one continuous piece with no joint permitted at the construction joint.

5. MEASUREMENT.

A. **Expansion Joint Replacement 3 In.** The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint. Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, expansion joint seal, reinforcing steel, mechanical couplers, and all incidental items necessary to complete the work within the specified pay limits as specified by this Note and as shown on the attached detail drawings. Construction of joints within the concrete railings is incidental to this bid item.

B. **Expansion Joint Replacement 4 In.** The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint.

Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, expansion joint seal, reinforcing steel, mechanical couplers, and all incidental items necessary to complete the work within the specified pay limits as specified by this Note and as shown on the attached detail drawings. Construction of joints within the concrete railings is incidental to this bid item.

C. **Expansion Joint Replacement 5 In.** The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint. Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, expansion joint seal, reinforcing steel, mechanical couplers, and all incidental items necessary to complete the work within the specified pay limits as specified by this Note and as shown on the attached detail drawings. Construction of joints within the concrete railings is incidental to this bid item.

6. **PAYMENT.** The Department will make payment for the completed and accepted quantities under the following:

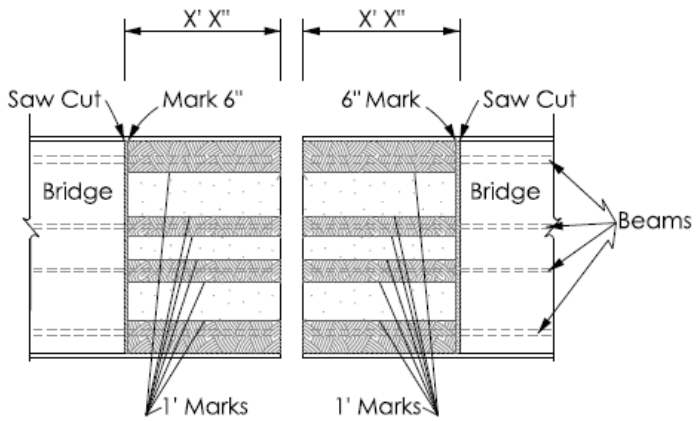
Code	Pay Item	Pay Unit
03297	EXPAN JOINT REPLACE 3 IN	Lin. Ft.
03298	EXPAN JOINT REPLACE 4 IN	Lin. Ft.
23034EN	EXPANSION JOINT REPLACE-5IN	Lin. Ft.

The Department will consider payment as full compensation for all work required in this provision.

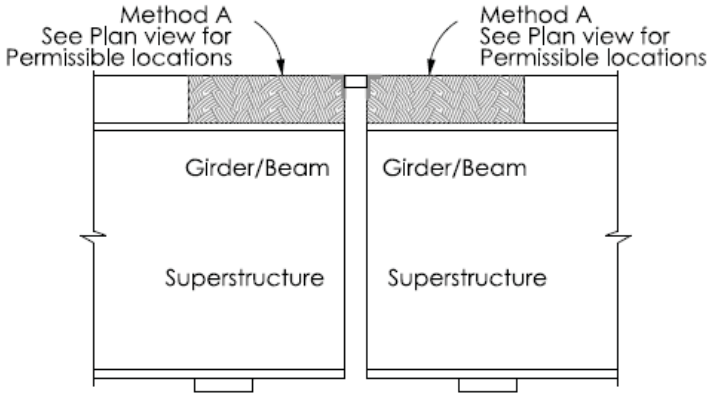
Concrete Removal Methods

Method A: Lighter than 45 lb. class hammer

Method B: Lighter than 360 ft- lb hammer pneumatic/hydraulic/power driven



PLAN VIEW



CROSS SECTION

SPECIAL NOTE FOR OHIO APPROACH UNIT 6 REPAIRS

1. DESCRIPTION. Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Ohio Department of Transportation's 2016 Construction & Material Specifications (ODOT C&MS), the Standard Drawings, this Note, and the attached detail drawings.

This work consists of the following repairs performed on Bridge Unit 6 (Spans 20A through 25A) of the Ohio Approach: (1) Furnish all labor, materials, tools, and equipment; (2) Clean areas near cracks using pencil abrasive blasting; (3) Locate tips of cracks with dye penetrant or magnetic particle testing and provide access for the Engineer to verify crack tips; (4) Drilling crack arrest holes; (5) Field weld intermediate crossframe stiffeners to girder flanges; (6) Repair cracked bearing stiffeners; (7) Clean and paint new steel and steel, new welds, and steel with paint damaged by the repairs; and (8) Any other work specified as part of this contract.

The locations of the repairs are shown on Sheet M44. Repair details are on Sheet M45.

2. MATERIALS.

A. Steel. Use ASTM A572 Grade 50.
B. Bolts. Use ASTM F3125 Grade A325 Type 1.
C. Washers. Use ASTM F436.
D. Nuts. Use ASTM A563C.
E. Paint. See Paint note below.

3. CONSTRUCTION.

A. Steel web crack retrofit.

i. **Inspection and Mechanized Access.** The Contractor shall provide access necessary for inspecting the structure to determine and document the locations and extents of weld crack repairs required for Bridge Unit No. 6 as shown in the plans and otherwise as directed by the Engineer.

The Contractor shall supply and maintain throughout the duration of the project all the necessary equipment, labor, and materials for the Contractor's forces and the Engineer to review and document the condition of all weld cracks on the specified spans of the structure. Mechanized equipment may include, but is not limited to personnel lifts, cranes, fall protection, confined space entry equipment, and/or other access and safety equipment required for use on mechanized, mobile systems. Materials

may include, but are not limited to marking paint, as needed by the Engineer.

The Contractor shall assume liability for the safety of all authorized personnel using the equipment in its intended manner.

ii. **Pencil Abrasive Blasting.** The pencil abrasive blasting referred to in the various notes shall conform to the following:

Clean the designated non-destructive testing (NDT) areas of all paint, rust and foreign material by abrasive blasting to a surface quality equal to SSPC-SP10 preparation grade SA 2 according to and as shown in SSPC-VIS 1-89. Since the intent of the pencil abrasive blasting is to enhance the visual and NDT crack detection techniques, a gentle abrasive blast shall be used such that the surface is not peened or otherwise cold worked. Perform the abrasive blasting using a maximum compressed air pressure of 100 psi, a hose nozzle diameter of 1/4" (+/- 1/16"), and a grade 30/60 coal slag abrasive or equivalent. Do not use blasting abrasives containing more than one percent free silica. Blasters used for surface preparation for structural steel coating cannot be used for pencil blasting. After the abrasive blasting is complete, air blow the area clean.

The Contractor shall demonstrate to the Engineer that pencil abrasive blasting can be satisfactorily performed according to the Specifications and this Special Note prior to the start of the work.

iii. **Locate Ends of Cracks.** The Contractor shall preform the following sequence of operations at the areas as designated in the plans and as directed by the Engineer to determine the ends of the cracks in the structural steel.

a) Clean the designated area by pencil abrasive blasting the paint and/or rust from the steel surface. Cleaned areas shall be at least 4 inches wide along each side of a suspected crack location unless otherwise shown in the plans.

b) The Engineer, accompanied by the Contractor, shall carefully visually inspect the cleaned area. Grinding may be directed by the Engineer to enhance the investigation for crack presence. All

grinding must be done cautiously, especially in tension zones. The grinding motion shall be parallel to the flange edge.

c) Non-destructively test (NDT) the area using magnetic particle examination and/or dye penetration so that the engineer may further inspect the cracks.

d) Perform steps (a) through (c) on the other side of this location.

There may be more than one NDT required at each location but additional testing will be included in the cost per each location.

iv. **Drilling Structural Steel, Grinding, and NDT.** The Contractor shall pencil abrasive blast clean the suspected crack area to be drilled.

All cracks and/or crack tips that are accessible are to be removed by drilling holes as shown in the plans. Any cracks inaccessible to drilling are to be removed by careful grinding, or by carefully enlarging the drilled holes by grinding.

Drill holes to remove entire cracks or the apparent ends of the crack revealed by the initial NDT and/or visual inspection. Grind smooth the exposed circumference of each drilled hole and carefully inspect for cracks using magnetic particle examination and/or dye penetration testing. Continue drilling, grinding, and testing until all crack ends are removed. When no cracks are detected at a location, no holes shall be drilled under this item. ODOT District Production Department (Bridge Section) approval must be obtained before drilling any holes in the flanges.

Since any of these cracks could propagate into a tension zone, removing their ends is imperative. Cracks less than 1 1/2" long, and cracked areas or defects less than 1 1/2" in diameter shall be removed by a single hole when practical. Ends of cracks longer than 1 1/2" and defects smaller than 1/2" shall be drilled with 1" diameter drill bits, or 2" diameter holes may be drilled where the proximity of the crack end to adjacent steel precludes drilling 1" diameter holes. Holes shall be carefully examined for cracks in the plane of the plate.

v. **Painting.** Paint bare steel and steel with paint damaged by the construction activities per the paint notes, below.

B. Crossframe Stiffener Welding.

i. The Contractor shall field weld all intermediate crossframe stiffeners to both girder flanges, on each side of the girder web. Do not extend welds to the edge of the stiffeners or into the web weld. See the details on Sheet M45.

ii. Paint new welds and areas where the existing paint was damaged by construction activities per the paint notes, below.

C. Bearing Stiffener Retrofit.

i. The Contractor shall remove the top of the existing stiffener and cracked welds. Install new stiffener plate as shown on Sheet M45. Do not extend welds to the edge of the stiffeners or into the clip.

ii. Paint weld locations and new steel plate per the paint notes, below.

4. PAINT.

A. Description. This item consists of field painting structural steel previously coated with paint and bare structural steel resulting from repairs. This work consists of performing surface preparation and applying a primer to the prepared steel and feathered removal areas of unknown existing paint systems.

B. General. ODOT C&MS 514.05 through 514.10 and 514.13.d apply unless modified by these notes.

C. Washing existing painted surfaces. Clean surfaces to be coated with low pressure water cleaning to remove all dirt, debris, animal excrement, salt contaminants, and other accumulated foreign material in accordance with SSPC-SP12 (LP WC), low pressure water cleaning. The pressure washer shall be capable of achieving at least 2000 pounds per square inch at the nozzle. When using the power washing equipment, the nozzle shall be maintained no more than 10 inches from the surface, supply and use potable water. Provide to the Engineer a letter of written acceptance for any biodegradable detergents or cleaners used in conjunction with this method.

Collect and contain water and debris removed during washing operations above water features in conformance with C&MS 514.08 and C&MS 514.13.d for any debris. Create settlement collection basins and strain all wash water above land

features as necessary to produce visibly clear water and comply with C&MS 514.08 and C&MS 514.13.d for any debris.

D. **Surface preparation.** After the pressure washed surface has dried, remove existing paint coating to contract limits or as directed by the Engineer according to: SSPC-SP II, power tool cleaning to bare metal, as shown on the pictorial surface preparation standards for painting steel surfaces shown in SSPC-VIS 3; SSPC SP6, commercial blast cleaning, as shown on the pictorial surface preparation standards for painting steel surfaces shown in SSPC-VIS 1; or SSPC SP12 UHP WJ-4, ultra high-pressure water jetting, as shown on the pictorial surface preparation standards for painting steel surfaces shown in SSPC-VIS 4. Supply blast water containing a commercially available rust inhibitor at a dosage that prevents flash rusting for 12 hours and documented as acceptance to the coating's manufacturer. The Engineer will use the SSPC-VIS 1, SSPC-VIS 3 or SSPC-VIS 4 to determine the acceptance of the surface preparation. Feather the existing paint to roughen a minimum of 1/2 inch of the existing paint. Contain and dispose of waste generated by the cleaning according to C&MS 514.13.d.

Round all exposed corners of main material to be painted as necessary to achieve a 1/16 inch radius or equivalent flat surface at a 45 degree angle.

E. **Field painting.** Apply the prime coat of the three-coat paint system specified in ODOT C&MS 708.02, according to ODOT C&MS 514.15, 514.16, 514.17, 514.19 and 514.20 to the contract limits or as directed by the Engineer. The Engineer will determine the prime coat thickness using a Type 2 magnetic gage at spot locations. Do not apply the intermediate or finish coat. The prime coat of paint shall meet the minimum dry film thickness requirements of ODOT C&MS 514.20. Apply paint as follows:

Apply the prime coat only to the prepared surface of the bare steel and the existing unknown paint system roughened by feathering.

At the perimeter of the repair area, apply the prime coat using a brush. In lieu of brushing, the Contractor may double mask the areas not to be coated and spray to feathered removal lines.

F. **Residual lead paint may still be on bridge.** The Contractor is advised to take all necessary protective measures including worker safety and environmental regulations when performing surface preparation and other work. The Department will not consider any claims based on residual lead paint.

5. MEASUREMENT.

Steel web crack retrofit. The Department will measure the quantity of crack locations that were repaired as each. A location is defined as the connection of crossframes to one or both sides of a girder at a single location along the girder. This includes furnishing all material, labor, and equipment necessary for providing mechanized access, pencil abrasive blast cleaning with grinding and NDT to determine crack ends (one or more than one test will be required per location), drilling the holes, grinding edge of drilled holes, NDT, and painting as described in this Note and shown in the attached detail drawings.

Crossframe stiffener welding. The Department will measure the quantity of crossframes that are welded (north and south faces on both the east and west ends) as each. This includes furnishing all material, labor, and equipment necessary for welding both sides (north and south) and both ends (east and west) of a crossframe along the girder web and painting as described in this Note and shown in the attached detail drawings.

Bearing stiffener retrofit. The Department will measure the quantity of bearing stiffeners that are retrofitted as each. This includes furnishing all material, labor, and equipment necessary for removal of the cracked portion of the bearing stiffener, installation of a new plate, and painting as described in this Note and shown in the attached detail drawings.

6. PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Supplemental Description	Pay Unit
24879EC	STEEL REPAIR	STEEL WEB CRACK RETROFIT	EACH
24879EC	STEEL REPAIR	CROSSFRAME STIFFENER WELDING	EACH
24879EC	STEEL REPAIR	BEARING STIFFENER RETROFIT	EACH

The Department will consider payment as full compensation for all work required in this provision.

KENTON CO. I-75 5TH ST. OFF RAMP
~LAT/LONG N 39.085623, W 84.523106
STATION 014 SB

SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED PERPENDICULAR TO TRAFFIC AND OFFSET 1' FROM EACH LANE LINE AS SHOWN. PIEZOS IN THE SAME LANE SHALL BE INSTALLED 8' APART. ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE CENTERED BETWEEN THE PIEZOS (1' BETWEEN EACH PIEZO AND LOOP ON BOTH SIDES OF THE LOOP). ALL WIRES FOR EACH GROUP OF SENSORS IN A LANE (PIEZO/LOOP/PIEZO) SHALL BE ROUTED INTO THE SAME HOME RUN SLOT AS SHOWN. BETWEEN 2' AND 3' OF WIRE FOR EACH SENSOR SHALL BE COILED AND LABELED INSIDE EACH JUNCTION BOX AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

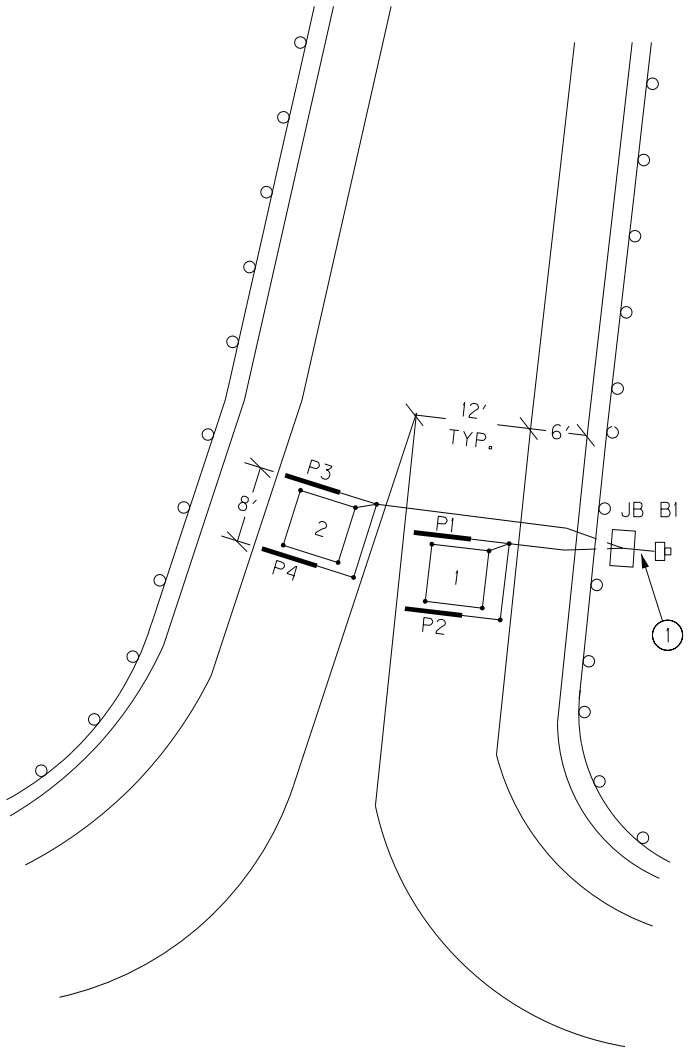
INSTALL ONE (1) TYPE B JUNCTION BOX (JB B1).

INSTALL ONE (1) 1¼" CONDUIT FROM EACH SAW SLOT TO JUNCTION BOX.

INSTALL ONE (1) 10"x8"x4" CABINETS ON ONE (1) WOOD POST.

CODED NOTE:

① INSTALL ONE (1) 1 ¼ CONDUIT



SCALE 1"=20'

KENTON CO. I-75 MAINLINE m.p. 191.05
~LAT/LONG N 39.084013, W 84.522988
STATION 014 SB

SITE AND DETECTOR LOCATIONS ARE APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED PERPENDICULAR TO TRAFFIC AND OFFSET 1' FROM EACH LANE LINE AS SHOWN (PIEZOS IN OUTSIDE LANES SHALL BE POSITIONED 1' OFF THE OUTER EDGE OF THE LANE). PIEZOS IN THE SAME LANE SHALL BE INSTALLED 8' APART. ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE CENTERED BETWEEN THE PIEZOS (1' BETWEEN EACH PIEZO AND LOOP ON BOTH SIDES OF THE LOOP). ALL WIRES FOR EACH GROUP OF SENSORS IN A LANE (PIEZO/LOOP/PIEZO) SHALL BE ROUTED INTO THE SAME HOME RUN SLOT AS SHOWN. BETWEEN 2' AND 3' OF WIRE FOR EACH SENSOR SHALL BE COILED AND LABELED INSIDE EACH JUNCTION BOX AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL ONE (1) TYPE A JUNCTION BOX (A1).

INSTALL ONE (1) 11#4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

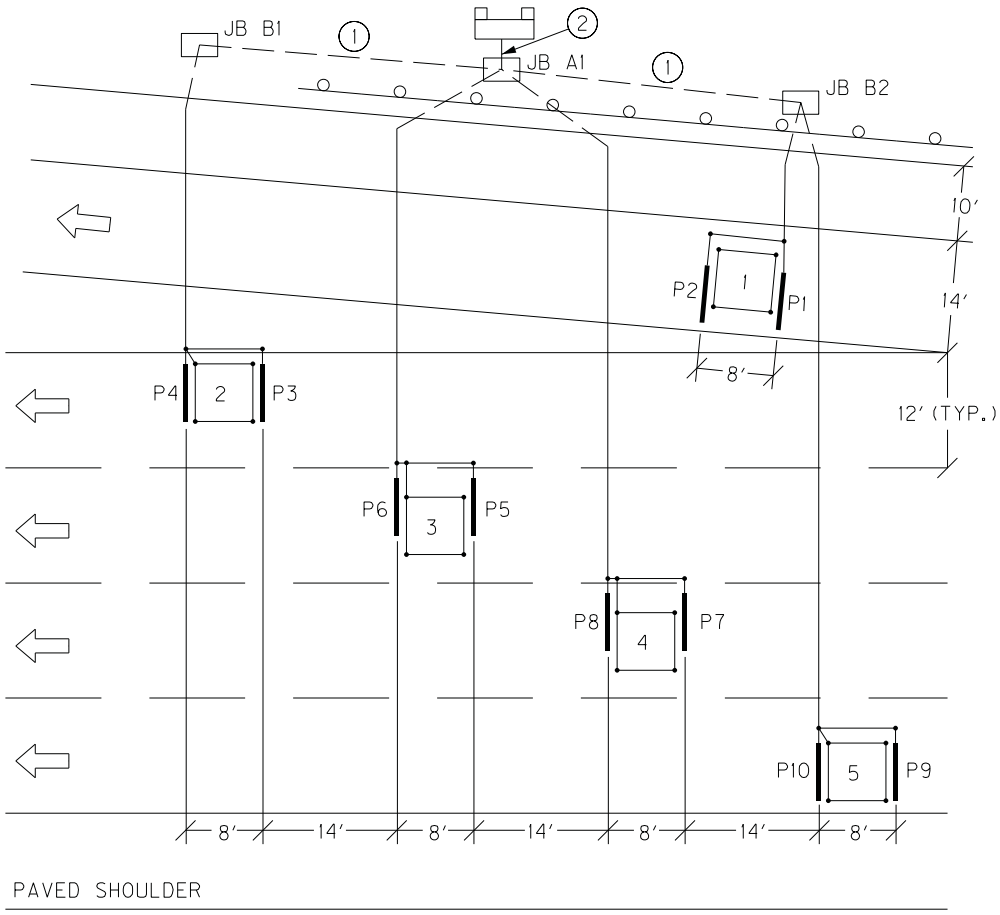
INSTALL ONE (1) 20"x20"x8" GALVANIZED STEEL CABINETS ON TWO (2) WOOD POSTS.

REMOVE ALL EX. TRAFFIC DATA COLLECTION EQUIPEMENT (CABINETS, WOOD POSTS, JUNCTION BOXES, WIRE, CONDUIT) NOT TO BE REUSED AND DISPOSE OF OFF THE PROJECT.

CODED NOTES:

① INSTALL ONE (1) 1 1/4 CONDUIT

② INSTALL ONE (1) 2" CONDUIT.



SCALE 1"=20'

KENTON CO. I-75 MAINLINE m.p. 191.05
~LAT/LONG N 39.084544, W 84.522484
STATION 014 NB

SITE AND DETECTOR LOCATIONS ARE APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED PERPENDICULAR TO TRAFFIC AND OFFSET 1' FROM EACH LANE LINE AS SHOWN (PIEZOS IN OUTSIDE LANES SHALL BE POSITIONED 1' OFF THE OUTER EDGE OF THE LANE). PIEZOS IN THE SAME LANE SHALL BE INSTALLED 8' APART. ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE CENTERED BETWEEN THE PIEZOS (1' BETWEEN EACH PIEZO AND LOOP ON BOTH SIDES OF THE LOOP). ALL WIRES FOR EACH GROUP OF SENSORS IN A LANE (PIEZO/LOOP/PIEZO) SHALL BE ROUTED INTO THE SAME HOME RUN SLOT AS SHOWN. BETWEEN 2' AND 3' OF WIRE FOR EACH SENSOR SHALL BE COILED AND LABELED INSIDE EACH JUNCTION BOX AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL ONE (1) TYPE A JUNCTION BOX (A1).

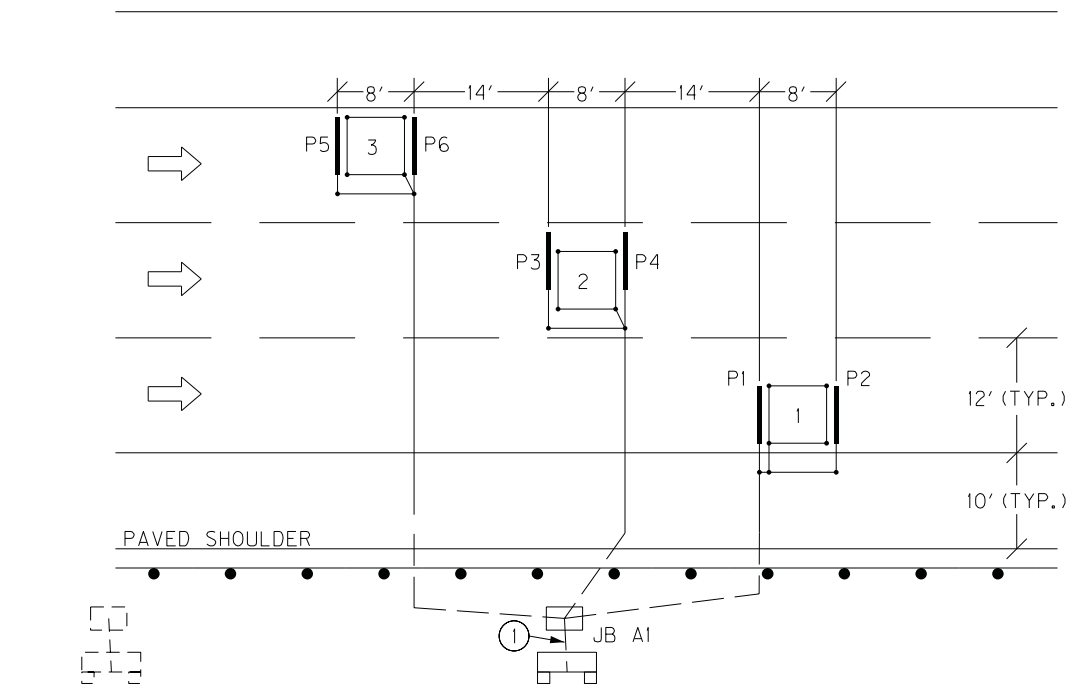
INSTALL ONE (1) 1¼" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

INSTALL ONE (1) 20"×20"×8" GALVANIZED STEEL CABINETS ON TWO (2) WOOD POSTS.

REMOVE ALL EX. TRAFFIC DATA COLLECTION EQUIPEMENT (CABINETS, WOOD POSTS, JUNCTION BOXES, WIRE, CONDUIT) NOT TO BE REUSED AND DISPOSE OF OFF THE PROJECT.

CODED NOTE:

① INSTALL ONE (1) 2" CONDUIT.



REMOVE EX. EQUIPMENT

SCALE 1"=20'

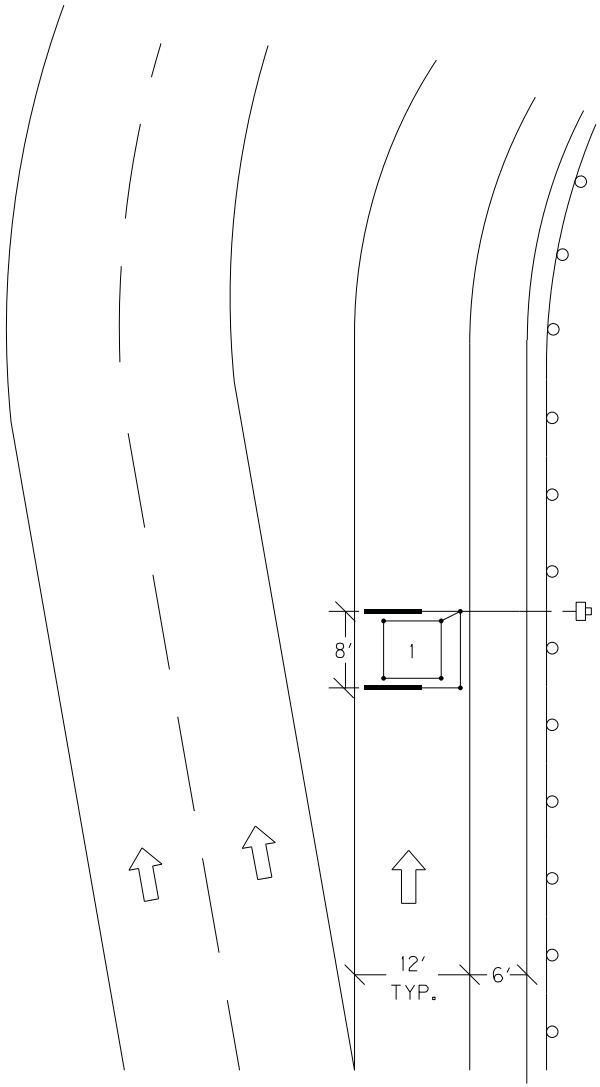
KENTON CO. I-75 4TH ST. ON RAMP
~LAT/LONG N 39.086620, W 84.521303
STATION 014 NB

SITE AND DETECTOR LOCATIONS ARE APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

BOTH PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED PERPENDICULAR TO TRAFFIC AND OFFSET 1' FROM THE LANE LINE AS SHOWN. PIEZOS SHALL BE INSTALLED 8' APART. LOOP SHALL BE 6'X6' SQUARE AND SHALL BE CENTERED BETWEEN THE PIEZOS (1' BETWEEN EACH PIEZO AND LOOP ON BOTH SIDES OF THE LOOP). ALL WIRES THE GROUP OF SENSORS SHALL BE ROUTED INTO THE SAME HOME RUN SLOT AS SHOWN. BETWEEN 2' AND 3' OF WIRE FOR EACH SENSOR SHALL BE COILED AND LABELED INSIDE THE JUNCTION BOX AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL ONE (1) 10"x8"x4" CABINET ON ONE (1) WOOD POST.

INSTALL ONE (1) 1#4" CONDUIT FROM SAW SLOT TO CABINET.



SCALE 1"=20'

PERMANENT TRAFFIC DATA ACQUISITION STATIONS
ESTIMATE OF QUANTITIES

Bid Item Code	Description	Unit	Quantity
2562	TEMPORARY SIGNS	SQ FT	
2650	MAINTAIN AND CONTROL TRAFFIC	LP SUM	
2775	ARROW PANEL	EACH	
4791	CONDUIT ¾ INCH	LIN FT	
4793	CONDUIT 1 ¼ INCH	LIN FT	210
4795	CONDUIT 2 INCH	LIN FT	20
4811	ELECTRICAL JUNCTION BOX TYPE B	EACH	3
4820	TRENCHING AND BACKFILLING	LIN FT	220
4821	OPEN CUT ROADWAY	LIN FT	
4829	PIEZOELECTRIC SENSOR	EACH	22
4830	LOOP WIRE	LIN FT	2400
4850	CABLE NO. 14/1 PAIR	LIN FT	
4871	POLE – 35’ WOODEN	EACH	
4895	LOOP SAW SLOT AND FILL	LIN FT	820
4899	ELECTRICAL SERVICE	EACH	
20213EC	INSTALL PAD MOUNT ENCLOSURE	EACH	
20359NN	GALVANIZED STEEL CABINET	EACH	1
20360ES818	WOOD POST	EACH	6
20391NS835	ELECTRICAL JUNCTION BOX TYPE A	EACH	
20392NS835	ELECTRICAL JUNCTION BOX TYPE C	EACH	
20468EC	ELECTRICAL JUNCTION BOX 10x8x4	EACH	2
21543EN	BORE AND JACK PIPE – 2 IN	LIN FT	
23206EC	INSTALL CONTROLLER CABINET	EACH	

MATERIAL, INSTALLATION, AND BID ITEM NOTES FOR PERMANENT TRAFFIC DATA ACQUISITION STATIONS

1. DESCRIPTION

Except as specified in these notes, all work shall consist of furnishing and installing all materials necessary for permanent data acquisition station equipment installation(s) and shall be performed in accordance with the current editions of:

- The Contract
- Division of Planning Standard Detail Sheets
- Kentucky Transportation Cabinet, Department of Highways, *Standard Specifications for Road and Bridge Construction*
- Kentucky Transportation Cabinet, Department of Highways, Standard Drawings
- National Fire Protection Association *(NFPA) 70: National Electrical Code*
- Institute of Electrical and Electronic Engineers (IEEE), *National Electrical Safety Code*
- Federal Highway Administration, *Manual on Uniform Traffic Control Devices*
- American Association of State Highway and Transportation Officials (AASHTO), *Roadside Design Guide*.
- Standards of the utility company serving the installation, if applicable

The permanent traffic data acquisition station layout(s) indicate the extent and general arrangement of the proposed installation and are for general guidance. Any omission or commission shown or implied shall not be cause for deviation from the intent of the plans and specifications. Information shown on the plans and in this proposal and the types and quantities of work listed are not to be taken as an accurate or complete evaluation of the material and conditions to be encountered during construction. The bidder must draw his own conclusion as to the conditions encountered. The Department of Highways (Department) does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information shown. If any modifications of the plans or specifications are considered necessary by the Contractor, details of such modifications and the reasons, therefore, shall be submitted in writing to the Engineer for written approval prior to beginning such modified work.

The Contractor shall contact all utility companies and the district utility agent prior to beginning construction to insure proper clearance and shielding from existing and proposed utilities. The Contractor shall use all possible care in excavating on this project so as not to disturb any existing utilities whether shown on the plans or not shown on the plans. Any utilities disturbed or damaged by the Contractor during construction shall be replaced or repaired to original condition by the Contractor at no cost to the department. If necessary, to avoid existing utilities, the Contractor shall hand dig areas where poles or conduit cross utilities.

The Contractor shall be responsible for all damage to public and/or private property resulting from his work.

The Contractor shall inspect the project site prior to submitting a bid and shall be thoroughly familiarized with existing conditions. Submission of a bid will be considered an affirmation of this inspection having been completed. The Department will not honor any claims resulting from site conditions.

2. MATERIALS

All proposed materials shall be approved prior to being utilized. The Contractor shall submit for material approval an electronic file of descriptive literature, drawings and any requested design data for the proposed materials. After approval, no substitutions of any approved materials may be made without the written approval of the Engineer.

Materials requiring sampling shall be made available a sufficient time in advance of their use to allow for necessary testing.

2.1. Anchoring

2.1.1. Anchor and Anchor Rod

Anchor, except rock anchor, shall be expanding type, with a minimum area of 135 square inches.

Anchor rod shall be galvanized steel, double-eye, have a minimum diameter of 5/8 inches, and a minimum length of 84 inches. Minimum holding capacity shall be 15,400 lbs.

Rock anchor shall be galvanized steel, triple-eye, expanding type, with a minimum diameter of ¾ inch, a minimum 53 inches long, and a minimum tensile strength of 23,000 lb.

2.1.2. Guy Wire and Guy Guard

Guy wire shall be Class A, Zinc-coated, 3/8 inch diameter, high strength grade steel (minimum 10,800 lb.) and galvanized per ASTM A475. Guy guard shall be 8’ long, fully-rounded, yellow, and able to be securely attached to the guy wire.

2.1.3. Strandvise for Guy Wire

Strandvise for guy wire shall be 3/8 inch and rated to hold a minimum of 90% of the rated breaking strength (RBS) of the strand used.

2.2. Asphalt

Asphalt shall be a minimum CL2 Asph Surf 0.38C PG64-22 and conform to the *Standard Specifications for Road and Bridge Construction.*

2.3. Backer Rod

Backer rod shall be ½ inch diameter, closed cell polyethylene foam and shall meet or exceed the following physical properties:

- Density (average): 2.0 lbs/cu.ft. (minimum): ASTM D 1622 test method
- Tensile Strength: 50 PSI (minimum): ASTM D 1623 test method
- Compression Recovery: 90% (minimum): ASTM D 5249 test method
- Water Absorption: 0.03 gm/cc (maximum): ASTM C 1016 test method

2.4. Cabinets

2.4.1. Galvanized Steel Cabinet

Galvanized Steel Cabinet shall be constructed of 16 or 14 gauge galvanized steel and shall meet or exceed the industry standards set forth by UL 50 and NEMA 3R. The finish shall be an ANSI 61 gray polyester powder finish inside and out over the galvanized steel. Cabinet shall have minimum inside dimensions of 20 inches high by 20 inches wide by 8 inches deep.

The cabinet shall be equipped with the following:

- Drip shield top
- Seam-free sides, front, and back, to provide protection in outdoor installations against rain, sleet, and snow
- Hinged cover with 16 gauge galvanized steel continuous stainless steel pin.
- Cover fastened with captive plated steel screws, knob or latch
- Hasp and staple for padlocking
- No gaskets or knockouts
- Back panel for terminal block installation
- Post mounting hardware
- Terminal Blocks

2.4.2. Anchor Bolt for Pad Mounted Cabinet

Anchor bolt for pad mounted cabinet shall be galvanized steel with minimum dimensions of 3/8 inch by 6 inches.

2.5. Concrete

Concrete shall be Class A and conform to the *Standard Specifications for Road and Bridge Construction.*

2.6. Conduit and Conduit Fittings

Conduit and conduit fittings shall be rigid steel unless otherwise specified.

Conduit shall be zinc galvanized inside and out and conform to the NEC, UL Standard 6, and ANSI C-80.1.

Rigid Steel Conduit Fittings shall be galvanized inside and out and conform to the NEC, UL Standard 514B, and ANSI C-80.4. Intermediate Metal Conduit (IMC) will not be approved as an acceptable alternative to rigid steel conduit.

2.7. Conduit sealant

Conduit sealant shall be weather-, mold-, and mildew-resistant and chemically resistant to gasoline, oil, dilute acids and bases. Conduit sealant shall be closed cell type and shall meet or exceed the following properties:

- Cure Time — 20 minutes max.
- Density — 64.4 kg/m3; 6 lbs/ft3
- Compressive Strength (ASTM 1691) — 13.8 MPa; 330 or 300 psi

- Tensile Strength (ASTM 1623) 15.9 MPa; 270 or 250 psi
- Flexural Strength (ASTM D790) 14.5 MPa; 460 or 450 psi
- Service Temperature -20 to 200 F

2.8. Electrical Service Meter Base

Electrical service meter base shall meet or exceed all requirements of the National Electrical Code and the local utility providing the electrical service.

2.9. Electrical Service Disconnect

Electrical service disconnect shall meet or exceed all requirements of the National Electrical Code and the local utility providing the electrical service.

2.10. Flashing Arrow

Flashing Arrow shall conform to the *Standard Specifications for Road and Bridge Construction.*

2.11. Ground Fault Circuit Interrupter (GFCI) Receptacle

Ground Fault Circuit Interrupter Receptacle shall be 2-pole, 3-wire, 20 Amp, 125 Volt, 60 Hz, NEMA 5-20R configuration and meet or exceed the following standards and certifications:

- NEMA WD-1 and WD-6
- UL 498 and 943
- NOM 057
- ANSI C-73

This item shall include a UL listed, 4 inch x4 inch x $2^1/_8$ inch box with ¾ inch side and end knockouts and a 1½ inches deep, single-receptacle cover to house the GFCI receptacle. Box and cover shall be hot rolled, galvanized steel with a minimum thickness of 0.62 inches.

2.12. Grounding

2.12.1. Ground Rod

Ground Rod shall be composite shaft consisting of a pure copper exterior (5 mil minimum) that has been inseparably molten welded to a steel core. Ground Rod shall have a minimum diameter of 5/8 inch, a minimum length of 8 feet and shall be manufactured for the sole purpose of providing electrical grounding.

2.12.2. Ground Rod Clamp

Ground rod shall be equipped with a one piece cast copper or bronze body with a non-ferrous hexagonal head set screw and designed to accommodate a 10 AWG solid through 2 AWG stranded grounding conductor.

2.13. Grout

2.13.1. Grout for Inductive Loop Installation

Grout for inductive loop installation shall be non-shrink, shall meet the requirements of the *Standard Specifications for Road and Bridge Construction*,

and shall be included on the KYTC Division of Materials, *List of Approved Materials*.

2.13.2. Grout for Piezoelectric Sensor Installation

Grout for piezoelectric sensor installation shall be per the piezoelectric sensor manufacturer's recommendation. Grout shall be suitable for installation in both asphalt and Portland cement pavements. Grout shall have a short curing time (tack free in ten minutes; open to traffic in forty minutes; and fully cured within sixty minutes) to prevent unnecessary lane closure time and should be of sufficient consistency to prevent running when applied on road surfaces with a drainage cross slope. Particulate matter within the grout shall not separate or settle and the grout shall not shrink during the curing process.

2.14. Hardware

Except where specified otherwise, all hardware such as nuts, bolts, washers, threaded ends of fastening devices, etc. with a diameter less than 5/8 inch shall be passivated stainless steel, alloy type 316 or type 304. Stainless steel hardware shall meet ASTM F593 and F594 for corrosion resistance. All other nuts and bolts shall meet ASTM A307 and shall be galvanized.

2.14.1. Conduit Strap

Conduit strap shall be double-hole, stainless steel, and sized to support specified conduit. Conduit strap shall attach to wood pole or post with two 2 ¼ inch wood screws.

2.14.2. Mounting Strap for Pole Mount Cabinet

Mounting strap for pole mount cabinet shall be ¾ inch x 0.03 inch stainless steel; equipped with clips or buckles to securely hold strap.

2.14.3. Metal Framing Channel and Fittings

Metal framing channel shall be 1 5/8 inches wide galvanized steel that conforms to ASTM A1011 and ASTM A653. One side of the channel shall have a continuous slot with in-turned edges to accommodate toothed fittings.

Fittings shall be punch pressed from steel plates and conform to ASTM A575 and the physical requirements of ASTM A1011.

2.15. Junction Box

2.15.1. Junction Box Type A, B, or C

Junction Box Type A, B, or C shall meet or exceed ANSI/SCTE 77-2007, Tier 15. Box shall have an open bottom. A removable, non-slip cover marked "PLANNING" shall be equipped with a lifting slot and attached with a minimum of two 3/8 inch stainless steel hex bolts and washers. Type A Box shall have nominal inside dimensions of 13 inches wide by 24 inches long by 18 inches deep. Type B Box shall have nominal inside dimensions of 11 inches wide by 18 inches long by 12

inches deep. Type C Box shall have nominal inside dimensions of 24 inches wide by 36 inches long by 30 inches deep.

2.15.2. Aggregate for Junction Box Type A, B, or C

Aggregate for junction box type A, B, or C shall be gradation size no. 57 and conform to the *Standard Specifications for Road and Bridge Construction.*

2.15.3. Junction Box 10x8x4

Junction Box Type 10x8x4 shall be constructed of a UV-stabilized, nonmetallic material or non-rusting metal and be weatherproof in accordance with NEMA 4X. Box shall be equipped with an overhanging door with a continuous durable weatherproof gasket between the body and door. Door shall be hinged with stainless steel screws, hinge(s) and pin(s) and shall be equipped with a stainless steel padlockable latch on the side opposite the hinge(s). Junction Box 10x8x4 shall have minimum inside dimensions of 10 inches high by 8 inches wide by 4 inches deep.

2.16. Maintain and Control Traffic

Materials for the bid item Maintain and Control Traffic shall conform to the *Standard Specifications for Road and Bridge Construction,* and the KYTC Department of Highways *Standard Drawings.*

2.17. Piezoelectric Sensor

Piezoelectric sensor (piezo) shall provide a consistent level voltage output signal when a vehicle axle passes over it, shall have a shielded transmission cable attached, and shall meet the following requirements:

- Dimensions: such that sensor will fit in a ¾ inch wide by 1 inch deep saw cut. Total length shall be 6 feet unless specified otherwise.
- Output uniformity: ± 7% (maximum)
- Typical output level range: 250mV (minimum) from a wheel load of 400 lbs.
- Working temperature range: -40° to 160° F.
- Sensor life: 30 million Equivalent Single Axle Loadings (minimum)

Shielded transmission cable shall be coaxial and shall meet the following requirements:

- RG 58C/U with a high density polyethylene outer jacket rated for direct burial
- Length shall be a minimum of 100 feet. Installations may exceed 100 feet so the piezo shall be supplied with a lead-in of appropriate length so that the cable can be installed splice-free from the piezo to the cabinet.
- Soldered, water resistant connection to the sensor.

One installation bracket for every 6 inches of sensor length shall also be supplied. Piezo shall be a RoadTrax BL Class I or approved equal.

2.18. Saw Slot Sealant

Saw Slot Sealant shall be non-shrink, non-stringing, moisture cure, polyurethane

encapsulant suitable for use in both asphalt and concrete pavements. It shall provide a void-free encapsulation for detector loop cables and adequate compressive yield strength and flexibility to withstand heavy vehicular traffic and normal pavement movement.

The cured encapsulant shall meet or exceed the following:

- Hardness (Indentation): 35-65 Shore A, ASTM D2240
- Tensile Strength: 150 psi minimum, ASTM D412
- Elongation: 125% minimum 2 inch/minute pull, ASTM D412
- Tack-free Drying Time: 24 hours maximum, ASTM C679
- Complete Drying Time: 30 hours maximum, KM 64-447
- Chemical Interactions (seven day cure at room temperature, 24-hour immersion, KM 64-446):
  - Motor Oil: No effect
  - Deicing Chemicals: No effect
  - Gasoline: Slight swell
  - Hydraulic Brake Fluid: No effect
  - Calcium Chloride (5%): No effect

2.19. Seeding and Protection

Material for Seeding and Protection shall be Seed Mixture Type I and conform to the *Standard Specifications for Road and Bridge Construction.*

2.20. Signs

Materials for signs shall conform to the *Standard Specifications for Road and Bridge Construction.*

2.21. Splicing Materials

2.21.1. Electrical Tape

Electrical tape shall be a premium grade, UL-listed, all-weather, vinyl-insulating tape with a minimum thickness of 7 mil. Tape shall be flame retardant and resistant to abrasion, moisture, alkalis, acids, corrosion, and weather (including ultraviolet exposure).

2.21.2. Splice Kit

Splice kit shall be inline resin-type and rated for a minimum of 600V. Resin shall be electrical insulating-type and shall provide complete moisture and insulation resistance.

2.22. Steel Reinforcing Bar

Steel reinforcing bar shall be #5 and shall conform to the *Standard Specifications for Road and Bridge Construction.*

2.23. Terminal Block

Terminal block shall be rated for a minimum of 300 V and have a minimum of six

terminal pairs with 9/16-inch nominal spacing (center to center) for connecting loop and piezoelectric sensor wires to cable assemblies. Terminal block shall have screw type terminal strips to accommodate wire with spade-tongue ends.

2.24. Warning Tape

Warning tape shall be acid and alkali resistant formulated for direct burial. Tape shall be a minimum of 3 inches wide by 4.0 mils (nominal) thick, and shall be permanently imprinted with a minimum 1 inch black legend on a red background warning of an electric line. Tape shall meet or exceed the following industry specifications:

- American Gas Association (AGA) 72-D-56
- American Petroleum Institute (API) RP 1109
- American Public Works Association (APWA) Uniform Color Code
- Department of Transportation (DOT) Office of Pipeline Safety USAS B31.8
- Federal Gas Safety Regulations S 192-321 (e)
- General Services Administration (GSA) Public Buildings Service Guide: PBS 4-1501, Amendment 2
- National Transportation Safety Board (NTSB) PSS 73-1
- Occupational Safety and Health Administration (OSHA) 1926.956 (c) (1)

2.25. Wire and Cable

All cable and wire shall be plainly marked in accordance with the National Electrical Code (NEC).

2.25.1. Loop Wire

Loop wire shall be 14 AWG, stranded, copper, single conductor, and shall conform to the International Municipal Signal Association (IMSA) Specification No. 51-7.

2.25.2. Cable No. 14/1 Pair

Cable No. 14/1 pair loop lead-in cable shall be 14 AWG, stranded, copper paired, electrically shielded conductors, and shall conform to IMSA 19-2.

2.25.3. Grounding conductor

Grounding conductor and bonding jumper shall be solid or stranded, 4 AWG bare copper.

2.25.4. Service Entrance Conductor

Service entrance conductor shall be stranded, copper, Type USE-2, sized as required to comply with the NEC.

2.25.5. Terminal for electrical wire or cable

Terminal for electrical wires or cables shall be insulated, solderless, spade tongue terminals of correct wire and stud size. Terminal for electrical wires or cables shall be incidental to the wire or cable (including piezoelectric sensor transmission cable) to be connected to terminal strips.

2.26. Wood Post

Wood post shall be Southern Pine pretreated to conform to the American Wood Preservers' Association (AWPA) C-14 and shall have minimum dimensions of 4 inches by 4 inches by 8 feet long (for Galvanized Steel Cabinet) or 4 feet long (for Junction Box 10x8x4), sawed on all four sides with both ends square.

2.27. Wooden Pole

Wooden pole shall be a Class IV wood pole of the length specified and shall conform to the *Standard Specifications for Road and Bridge Construction* except the pole shall be treated in accordance with AWPA P9 Type A.

3. CONSTRUCTION METHODS

The plans indicate the extent and general arrangement of the installation and are for guidance. When the Contractor deems any modifications to the plans or specifications necessary, details of such changes and the reasons shall be submitted in writing to the engineer for written approval prior to beginning the modified work.

After the project has been let and awarded, the Division of Construction shall notify the Division of Planning of the scheduled date for a Pre-Construction meeting so that prior arrangements can be made to attend. This will allow the Division of Planning an opportunity to address any concerns and answer any questions that the Contractor may have before beginning the work.

The Division of Planning Equipment Management Team (502-564-7183) shall be notified a minimum of seven days before any work pertaining to these specifications begins to allow their personnel the option to be present during installation.

Unless otherwise specified, installed materials shall be new.

Construction involving the installation of loops or piezoelectric sensors shall not be performed when the temperature of the pavement is less than 38ºF.

A final inspection will be performed by a member of the Central Office Division of Planning equipment staff after the installation is complete to verify that the installation is in compliance with the plans and specifications.

Any required corrective work shall be performed per the *Standard Specifications for Road and Bridge Construction.*

3.1. Anchoring

Furnish: Anchor, anchor rod, guy wire, strand vise, guy guard.

Anchor shall be installed in relatively dry and solid soil. Rock anchor shall be installed in solid rock. Excavate the hole at a 45° to 60° angle in line with the guy (hole size shall be slightly larger than the expanded anchor – see manufacturer's recommendation). Attach rod to anchor, install assembly into hole, and expand anchor. Backfill and tamp entire disturbed area. The effectiveness of the anchor is dependent upon the thoroughness of backfill tamping. Attach guy to strand vise on pole and anchor rod and tighten to required tension. Install guy guard on guy.

3.2. Bore and Jack Pipe – 2"

Furnish: Steel Encasement Pipe, 2"

Bore and jack pipe – 2" shall conform to the Section 706 of the *Standard Specifications for Road and Bridge Construction.*

3.3. Cleanup and Restoration

Furnish: Seed Mix Type 1 (as required); fertilizer (as required); agricultural limestone (as required); mulch or hydromulch (as required); tackifier (as required).

The Contractor shall be responsible for repairing any damage to public and/or private property resulting from his work. Upon completion of the work, restore all disturbed highway features in like kind design and materials. This shall include filling any ruts and leveling ground appropriately. Contractor shall dispose of all waste and debris off the project. Sow all disturbed earthen areas with Seed Mix Type 1 per Section 212 of the *Standard Specifications for Road and Bridge Construction*. All materials and labor necessary for cleanup and restoration shall be considered incidental to other bid items.

3.4. Conduit

Furnish: Conduit; conduit fittings; bushings (grounding where required); LB condulets (as required); weatherheads (as required); conduit straps; hardware; conduit sealant.

Conduit that may be subject to regular pressure from traffic shall be laid to a minimum depth of 24 inches below grade. Conduit that will not be subject to regular pressure from traffic shall be laid to a minimum depth of 18 inches below grade.

Conduit ends shall be reamed to remove burrs and sharp edges. Cuts shall be square and true so that the ends will butt together for the full circumference of the conduit. Tighten couplings until the ends of the conduit are brought together. Do not leave exposed threads. Damaged portions of the galvanized surfaces and untreated threads resulting from field cuts shall be painted with an Engineer-approved, rust inhibitive paint. Conduit bends shall have a radius of no less than 12 times the nominal diameter of the conduit, unless otherwise shown on the plans.

Contractor shall install a bushing (grounding bushing where required) on both ends of all conduits. Cap spare conduits on both ends with caps or conduit sealant.

Conduit openings in junction boxes and cabinets shall be waterproofed with a flexible, removable conduit sealant, working it around the wires, and extending it a minimum 1 inch into the end of the conduit.

After the conduit has been installed and prior to backfilling, the conduit installation shall be inspected and approved by the Engineer.

3.5. Electrical Service

Furnish: Meter base, service disconnect, wire, GFCI AC duplex receptacle with box and cover; conduit, conduit fittings, bushings (grounding where required); LB condulets (as required); weatherhead; conduit straps; hardware; conduit sealant; ground rod with clamp; grounding conductor.

Prior to any construction, the Contractor shall initiate a work order with the local power

company for the installation of electrical service to the site. A representative from the Division of Planning and the local power company shall be consulted prior to choosing an exact location for the pole. The Contractor shall clear the right-of-way for the electrical service drop.

Contractor shall obtain electrical inspections, memberships, meter base, service disconnect and any other requirements by the utility serving the installation and pay all fees as required.

Install meter-base and disconnect panel with a 30-ampere, fused, circuit breaker inside. Install a manufactured weatherproof hub connectors to connect the conduit to the top of the meter base and service disconnect.

Install a rigid ¾ inch conduit with three 8 AWG service conductors from the cabinet, through the service disconnect to the meter base and a 1¼" conduit with three 8 AWG service conductors from the meter base to a weatherhead two feet from the top of the electrical service pole. Install conduit straps 30 inches on center and provide a drip loop where the wire enters the weatherhead. Splice electric drop with service entrance conductors at the top of the pole.

The limit of conduit incidental to "Install Electrical Service" for a pad mounted cabinet is 24 inches beyond face of service pole.

Install a 120-volt, 20-amp GFCI AC duplex receptacle with box and cover in the automatic data recorder (ADR) cabinet.

Install a ground rod with clamp. Install a grounding conductor wire from the meter base, through the disconnect panel, to the ground rod clamp. Install grounding conductor in 1-¾" conduit from service disconnect to ground rod.

After completing the installation and before the electrical service is connected, obtain a certificate of compliance from the Kentucky Department of Housing, Buildings and Construction, Electrical Inspection Division.

3.6. Flashing Arrow

Furnish: Arrow Panel

Construction of Flashing Arrow shall conform to the *Standard Specifications for Road and Bridge Construction.*

3.7. Galvanized Steel Cabinet

Furnish: Cabinet; wood posts; concrete; conduit fittings; metal framing channel; pipe clamp; terminal block(s); spade tongue wire terminals; wire labels; hardware.

Where right-of-way allows, locate the cabinet such that it is outside the clear zone in accordance with the *Roadside Design Guide*. Install Cabinet such that the door of the

cabinet faces the roadway.

Excavate as required and install wood posts to a depth of 36 inches and place concrete around posts as shown on the standard detail sheets. Install metal framing channel with pipe clamp between posts.

Install Cabinet on wood posts 38 inches above the finished grade as shown on the standard detail sheets. Install a unistrut between posts when two posts are specified.

Install the required number of terminal blocks on the cabinet back plate. Install a spade tongue terminal on each loop and piezo sensor wire entering the cabinet and connect wires to terminal block(s). Wiring shall be neat and orderly. Label all wires and cables inside cabinet.

Install conduit from ground to cabinet and attach to pipe clamp. Install locknuts to attach conduit to cabinet and install a conduit bushing as shown on the standard detail sheets.

3.8. Grounding

Furnish: Ground rod with clamp; grounding conductor.

At sites with electrical or solar service, all conduits, poles, and cabinets shall be bonded to ground rods and the electrical system ground to form a complete grounded system.

Install such that top of ground rod is a minimum of 3 inches below finished grade.

Grounding systems shall have a maximum 25 ohms resistance to ground. If the resistance to ground is greater than 25 ohms, two or more ground rods connected in parallel shall be installed. Adjacent ground rods shall be separated by a minimum of 6 feet.

3.9. Install Pad Mount Enclosure

Furnish: Concrete; anchor bolts with washers and nuts; conduit; conduit fittings; conduit grounding bushings; ground rod with clamp; grounding conductor; conduit sealant; wooden stakes (where required); wire labels; hardware.

The Contractor shall be responsible for securing the enclosure from the Central Office Division of Planning Warehouse in Frankfort and transporting it to the installation site.

Where right-of-way allows, locate the enclosure such that it is outside the clear zone in accordance with the *Roadside Design Guide*.

Excavate as required, and place concrete to construct the enclosure foundation as specified on the standard detail sheets. Install enclosure on the concrete base such that the door(s) of the enclosure opens away from traffic (hinges away from traffic). Install anchor bolts, washers, and nuts to secure the enclosure to the foundation.

Install ground rod with clamp and install one ¾ inch rigid conduit from enclosure base to

ground rod. Install a grounding conductor from ground rod to enclosure base and bond to each conduit bushing in the base.

Install one ¾ inch rigid steel conduit for electrical service from the base of the enclosure to 24 inches beyond the concrete base. Make all field wiring connections to the electrical service, as applicable.

If electrical service is not provided as a bid item in the contract, plug conduit on both ends with a cap, conduit sealant, or electrical tape. Mark the location of the buried conduit end with a wooden stake labeled "3/4 in. conduit."

Install specified rigid steel conduit(s) into the base of the enclosure for sensor wire entry. Install one spare 2 inch conduit from the enclosure base to 2 feet beyond the concrete base. Plug spare conduit on both ends with a cap, conduit sealant or electrical tape.

The limit of all conduits incidental to "Install Pad Mount Enclosure" is 24 inches beyond the edge of the concrete base.

Wiring in enclosure shall be neat and orderly. Label all wires and cables inside enclosure. KYTC personnel will furnish and install terminal blocks and connect sensors to terminal blocks.

3.10. Install Controller Cabinet

Furnish: Mounting brackets; mounting straps; conduit; LB condulets; conduit fittings; conduit grounding bushings; ground rod with clamp; grounding conductor; cable staples; conduit sealant; wooden stakes (where required); wire labels; hardware.

The Contractor shall be responsible for securing the cabinet from the Central Office Division of Planning Warehouse in Frankfort and transporting it to the installation site. Any existing holes in the cabinet not to be reused shall be covered or plugged to meet NEC requirements.

Install mounting brackets and secure cabinet to pole with mounting straps.

Install a ground rod with clamp. Install grounding conductor in 1-¾" conduit form cabinet to ground rod.

Install one ¾ inch rigid steel conduit with two lb condulets from cabinet to electrical service disconnect box. Make all field wiring connections to the electrical service, as applicable.

If electrical service is not provided as a bid item in the contract, plug conduit on both ends with cap, plumbers putty, conduit sealant, or electrical tape. Mark the location of the buried conduit end with a wooden stake labeled "3/4 in. conduit".

Install specified rigid steel conduit(s) and type LB condulet(s) into the bottom of the

cabinet for sensor wire entry. The limit of conduits incidental to "Install Controller Cabinet" is 24 inches beyond the face of the pole.

Wiring in cabinet shall be neat and orderly. Label all wires and cables inside cabinet. KYTC personnel will furnish and install terminal blocks and connect sensors to terminal blocks.

3.11. Junction Box Type 10x8x4

Furnish: Junction box; wood post; conduit fittings; wire labels; hardware.

Where right-of-way allows, locate the junction box such that it is outside the clear zone in accordance with the Roadside Design Guide.

Excavate as required and install wood post(s) to a depth of 18 inches. Install junction box on wood post such that the bottom of the box is 18 inches above the finished grade as shown on the standard detail sheets. Box shall be installed with four (4) 2½ inch wood screws and washers.

Install locknuts to attach conduit to junction box and install a conduit bushing as shown on the standard detail sheets.

Wiring inside box shall be neat and orderly. Label all wires and cables inside box.

3.12. Junction Box Type A, B, or C

Furnish: Junction box, No. 57 aggregate; grounding conductor

Excavate as required and place approximately 12 inches of No. 57 aggregate beneath the proposed junction box to allow for drainage. Install specified junction box type A, B, or C near the edge of pavement, flush with finished grade per the detail sheets. Where required, orient the box so that the dimensions comply with the National Electrical Code. Stub conduits with grounding bushings into junction box at its base to accommodate wires and connect grounding conductor to all grounding bushings. Backfill to existing grade, and restore disturbed area to the satisfaction of the Engineer.

Wiring inside box shall be neat and orderly. Label all wires and cables inside box.

3.13. Loops - Proposed

Furnish: Wire; saw slot sealant; backer rod; grout; conduit sealant.

The plans and notes specify the approximate location for loop installations. Prior to sawing slots or drilling cores, the Contractor shall meet with a representative of the Division of Planning to verify the precise layout locations on site. Avoid expansion joints and pavement sections where potholes, cracks, or other roadway flaws exist.

Upon completion of this meeting, the Contractor shall measure out and mark the proposed loop locations with spray paint or chalk such that the saw slots will be parallel

and perpendicular to the direction of traffic. Marked lines shall be straight and exact to the locations determined and sized as shown on the plans. Unless indicated otherwise, loops shall be 6 feet by 6 feet square and loops in the same lane shall be spaced 16 feet from leading edge to leading edge.

On resurfacing, rehabilitation, and new construction projects that include new asphalt pavement, the Contractor shall install loops prior to laying the final surface course. On projects with milling and texturing, the Contractor may install the loops prior to or after the milling operation; however, if installed prior to milling, the Contractor shall be responsible for ensuring that the loops are installed at a depth such that the milling operation will not disturb the newly installed loops. The Contractor shall correct damage caused by the milling operations to newly installed loops prior to placement of the final surface course at no additional cost to the Cabinet.

For projects that include the installation of new asphalt and piezoelectric sensors, the Contractor shall mark or otherwise reference all loops installed prior to the final surface course such that the loops can be accurately located when the piezoelectric sensors are installed after placement of the final surface course.

For projects that do not have asphalt surfacing, the Contractor shall install the loops in the surface of the pavement.

The Prime Contractor shall coordinate the installation of loops with the electrical sub-Contractor and the Engineer to ensure correct operation of the completed installation.

The following is a typical step by step procedure for the installation of a loop.

- Carefully mark the slot to be cut, perpendicular to the flow of traffic and centered in the lane.
- Make each saw-cut 3/8-inch wide and at a depth such that the top of the backer rod is a minimum of 2 inches below the surface of rigid (PCC/Concrete) pavement or 4 inches below the surface of asphalt pavement.
- Drill a 1½ inch core hole at each corner and use a chisel to smooth corners to prevent sharp bends in the wire.
- Clean ALL foreign and loose matter out of the slots and drilled cores and within 1 foot on all sides of the slots using a high pressure washer.
- Completely dry the slots and drilled cores and within 1 foot on all sides of the slots using oil-free forced air, torpedo heaters, electric heaters, or natural evaporation, depending on weather conditions. Be very careful not to burn the asphalt if heat is used.
- Measure 9-12 inches from the edge of the paved surface (shoulder break or face of curb) and drill a 1½ inch hole on a 45º angle to the conduit adjacent to the roadway.
- Closely inspect all cuts, cores, and slots for jagged edges or protrusions prior to the placement of the wire. All jagged edges and protrusions shall be ground or re-cut and cleaned again.

- Place the loop wire splice-free from the termination point (cabinet or junction box) to the loop, continue around the loop for four turns, and return to the termination point.
- Push the wire into the saw slot with a blunt object such as a wooden stick. Make sure that the loop wire is pushed fully to the bottom of the saw slot.
- Install conduit sealant to a minimum of 1" deep into the cored 1½ inch hole.
- Apply loop sealant from the bottom up and fully encapsulate the loop wires in the saw slot. The wire should not be able to move when the sealant has set.
- Cover the encapsulated loop wire with a continuous layer of backer rod along the entire loop and home run saw slots such that no voids are present between the loop sealant and backer rod.
- Finish filling the saw cut with non-shrinkable grout per manufacturer's instructions. Alleviate all air pockets and refill low spaces. There shall be no concave portion to the grout in the saw slot. Any excess grout shall be cleaned from the roadway to alleviate tracking.
- Clean up the site and dispose of all waste off the project.
- Ensure that the grout has completely cured prior to subjecting the loop to traffic. Curing time varies with temperature and humidity.

Exceptions to installing loop wire splice-free to the junction box or cabinet may be considered on a case-by-case basis and must be pre-approved by the Engineer. If splices are allowed, they shall be located in a junction box and shall conform to the construction note for Splicing.

If loop lead-in cable (Cable No. 14/1 Pair) is specified, cable shall be installed splice free to the cabinet ensuring that extra cable is left in each junction box or cabinet. All wires and cables shall be labeled in each junction box and cabinet.

Loop inductance readings shall be between 100 and 300 microhenries. The difference of the loop inductance between two loops in the same lane shall be ±20 microhenries. Inductance loop conductors shall test free of shorts and grounds. Upon completion of the project, all loops must pass an insulation resistance test of at least 100 million ohms to ground when tested with a 500 Volt direct current potential in a reasonably dry atmosphere between conductors and ground.

3.14. Loops – Existing

When noted on a data collection station layout sheet that there are existing inductive loops within the limits of the project, notify the Engineer in writing, a minimum of 14 calendar days prior to beginning milling operations. After milling and prior to placing asphalt inlay, conduct an operating test on the existing inductance loops at the control cabinet in the presence of the Engineer to determine if the inductance loop conductors have an insulating resistance of a minimum of 100 megohms when tested with a 500 volt direct current potential in a reasonably dry atmosphere between conductors and ground. The Department may also conduct its own tests with its own equipment.

If the tests indicate the loop resistances are above the specified limit and the Engineer determines the system is operable, proceed with the asphalt inlay. If the test indicates the loop resistance is not within the specified limits or if the Engineer determines the system is otherwise not operable, prior to placing the asphalt inlay install and test new loop detectors according to the station layout, notes, and Detail Drawings.

The Engineer will contact and maintain liaison with the District Planning Engineer and the Division of Planning in order to coordinate any necessary work.

3.15. Maintain and Control Traffic

Furnish (all as required): Drums, traffic cones, barricades used for channelization purposes, delineators, and object markers.

Maintain and Control Traffic shall conform to the plans, the Standard Specifications for Road and Bridge Construction, and the KYTC Department of Highways Standard Drawings.

3.16. Open Cut Roadway

Furnish: Concrete, reinforcing bars.

Excavate trench by sawing and chipping away roadway to dimensions as indicated on the detail sheets. After placing conduit, install concrete and steel reinforcing bars per the *Standard Specifications for Road and Bridge Construction.* Restore any disturbed sidewalk to its original condition.

3.17. Piezoelectric Sensor

Furnish: Piezoelectric sensor and cable; sensor support brackets; saw slot sealant; backer rod; grout; conduit sealant.

The plans and notes specify the approximate location for piezoelectric sensor (piezo) installations. Prior to sawing slots or drilling cores, the Contractor shall meet with a representative of the Division of Planning to verify the final layout on site. Avoid expansion joints and pavement sections where potholes, cracks, or other roadway flaws exist. Roadway ruts at the proposed piezo location shall not be in excess of ½ inch under a 4-foot straight edge.

Install the piezo perpendicular to traffic in the final surface course of the pavement. Locate the sensor in the lane as shown on the site layout drawing. Eleven-foot length sensors shall be centered in the lane.

The following is a typical step by step procedure for the installation of a piezo. Refer specifically to the manufacturer’s instructions provided with the sensor prior to installation.

- Carefully mark the slot to be cut, perpendicular to the flow of traffic and properly positioned in the lane.

- It is strongly recommended that a ¾ inch wide diamond blade be used for cutting the slot, or that blades be ganged together to provide a single ¾ inch wide cut. The slot shall be wet cut to minimize damage to the pavement.
- Cut a slot ¾ inch wide (±1/16 inch) by 1 inch minimum deep. The slot should be a minimum of 2 inches longer than the sensor (including the lead attachment). Drop the saw blade an extra ½ inch down on both ends of the sensor. The lead out of the passive cable should be centered on the slot.
- Cut the slot for the passive cable ¼ inch wide and at a depth so that the top of the backer rod is a minimum of 2 inches below the road surface.
- Clean ALL foreign and loose matter out of the slot and within 1 foot on all sides of the slot using a high pressure washer.
- Completely dry the slot and within 1 foot on all sides of the slot using oil-free forced air, torpedo heaters, electric heaters, or natural evaporation, depending on weather conditions. Be very careful not to burn the asphalt if heat is used.
- Measure 9-12 inches from the edge of the paved surface (shoulder break or face of curb) and drill a 1½ inch hole on a 45º angle to the conduit adjacent to the roadway.
- Place strips of 2-4 inch wide tape strips on the pavement along the lengths of both sides of the sensor slot, 1/8 inch away from the slot.
- Wear clean, protective latex (or equivalent) gloves at all times when handling sensors. Visually inspect sensor to ensure it is straight. Check lead attachment and passive cable for cuts, gaps, cracks and/or bare wire. Verify that the correct sensor type and length is being installed by checking the data sheet. Verify there is sufficient cable to reach the cabinet. Piezo lead-in cable shall not be spliced.
- Test the sensor for capacitance, dissipation factor and resistance, according to the directions enclosed with the sensor. Capacitance and dissipation should be within ±20% of the piezo data sheet. Resistance (using the 20M setting) should be infinite. Record the sensor serial number and the test results and label “pre-installation.” This information should be stored in the counter cabinet and/or returned to Department Planning personnel.
- Lay the sensor next to the slot and ensure that it is straight and flat.
- Clean the sensor with steel wool or an emery pad and wipe with alcohol and a clean, lint-free cloth.
- Place the installation bracket clips every 6 inches along the length of the sensor.
- Bend the tip of the sensor downward at a 30° angle. Bend the lead attachment end down at a 15° angle and then 15° back up until level (forming a lazy Z).
- Place the sensor in the slot, with the brass element 3/8 inch below the road surface along the entire length. The tip of the sensor should be a minimum of 2 inches from the end of the slot and should not touch the bottom of the slot. The top of the plastic installation bracket clips should be 1/8 inch below the surface of the road. The lead attachment should not touch the bottom or sides of the slot. Ensure the sensor ends are pushed down per the manufacturer’s instructions.
- Visually inspect the length of the sensor to ensure it is at uniform depth along its length and it is level (not twisted, canted or bent).

- On the passive cable end, block the end of the slot approximately 3-5 inches beyond the end of the lead attachment area creating an adequate "dam" so that the sensor grout does not flow out.
- Use one bucket of sensor grout per piezo installation. Overfill the slot with sensor grout and allow to cure for a minimum of 10 minutes before continuing with the installation. Ensure that sensor grout fills around and beneath the sensor completely and that there is not a trough on top.
- Remove the tape along the sides of the saw slot when the adhesive starts to cure.
- Carefully remove the dam from the end of the sensor.
- Route the lead-in cable through the saw slot
- Install conduit sealant to a minimum of 1" deep into the cored 1½ inch hole.
- Cover the lead-in cable with encapsulant, backer rod, and grout.
- If necessary, after the grout has hardened, grind with an angle grinder until the profile is a 1/16 inch mound. There shall be no concave portion to the mound.
- Clean up the site and dispose of all waste off the project.
- Ensure that the sensor grout has completely cured prior to subjecting the sensor to traffic. Curing time will vary with temperature and humidity.

Upon installation, test the sensor for capacitance, dissipation factor and resistance, according to the directions enclosed with the sensor. Capacitance and dissipation should be within +20% of the piezo data sheet. Resistance (using the 20M setting) should be infinite. Perform a functional test of the piezo with an oscilloscope to ensure that the sensor is generating a proper response to the passage of vehicles.

Record the sensor serial number and the test results and label "post-installation." This information should be stored in the counter cabinet and/or returned to Department Planning personnel.

3.18. Pole – Wooden

Furnish: Pole; anchoring equipment (as required); hardware (as required).

Excavate and install wood pole to a minimum depth of one-sixth the total pole height. Place backfill material in hole and compact until flush with existing grade. Install guy wire, guy guard, anchor, anchor rod, and strand vise, if necessary. Anchor shall be a minimum of one-third the pole height from the face of the pole. Provide temporary erosion control, seeding, protection and restoration of disturbed areas to the satisfaction of the Engineer.

3.19. Removal of Existing Equipment

The Contractor shall remove existing materials (including but not limited to: poles, anchors, cabinets, junction boxes, conduit and wire) not to be reused. Contractor shall dispose of all removed materials off the project. All materials and labor necessary for the removal of existing equipment shall be considered incidental to other bid items.

3.20. Signs

Furnish: Signs; sign standards; hardware.

Construction of **s**igns shall conform to the *Standard Specifications for Road and Bridge Construction.*

3.21. Splicing

Furnish: Splice kit; solder.

These notes describe the splicing process (if permitted) and are not intended to grant permission to splice. Permission to splice shall be determined by the Division of Planning and the locations shall be shown on the layout sheet. If splicing is needed but not shown on the layout sheet, the Contractor shall receive prior written approval from the Division of Planning.

All splices shall conform to the provisions of the NEC.

Splices for loop and loop lead-in wire shall be twisted and soldered. Abrade the outer jacket of both wires to promote good adhesion and prevent capillary leak paths. Seal the splice with an electrical sealing resin. Spliced loop conductors shall test free of shorts and unauthorized grounds and shall have an insulating resistance of at least 100 megohms when tested with a 500 volt direct current potential in a reasonably dry atmosphere between conductors and ground.

For piezos, the same type coax cable, supplied by the manufacturer, shall be used to splice to the sensor's lead-in cable. Cables shall be soldered. Abrade the outer jacket of both cables to promote good adhesion and prevent capillary leak paths. Seal the splice with an electrical sealing resin. Spliced piezo cables shall be tested and have a minimum resistance of 20 megohms, a maximum dissipation factor of 0.03, a capacitance within the manufacturer's recommended range based upon the length of additional cable. A functional test of the piezo shall be performed to ensure that the sensor is generating a proper response to the passage of vehicles.

3.22. Trenching and Backfilling

Furnish: Warning tape; seed mix type I; cereal rye or German foxtail-millet; mulch; concrete (as required); asphalt (as required).

Excavate trench and provide required cover as shown on the standard detail sheets. After placing conduit, backfill material shall be placed and compacted in lifts of 9 inches or less. Install warning tape as shown on the detail sheet. Provide temporary erosion control, seeding, protection and restoration of disturbed areas to the satisfaction of the Engineer. This item shall include concrete, asphalt or approved replacement material for sidewalks, curbs, roadways, etc. (if required).

3.23. Wiring

Furnish: Wire; wire labels; spade tongue wire terminals (as required).

Installation of all wiring shall conform to the NEC. Permanent identification numbers shall be affixed to all wires in all junction boxes and cabinets (see Layout(s) for loop and piezo numbers).

Additional lengths of each loop and piezo sensor wire shall be neatly coiled in all cabinets and junction boxes as follows:

Enclosure Type	Additional length of each wire
Galvanized Steel Cabinet	2’ – 3’
Pad Mount Cabinet (332)	6’ - 8’
Pole Mount Cabinet (336)	3’ - 4’
Junction Box Type 10x8x4	2’ – 3’
Junction Box Type A, B, or C	2’ – 3’

3.24. Wood Post

Furnish: Wood post; concrete (as required); seed mix type I; cereal rye or German foxtail-millet; mulch.

Excavate hole to specified depth and place concrete, if required. Install post, backfill to existing grade, and tamp backfill. Provide temporary erosion control, seeding, protection and restoration of disturbed areas to the satisfaction of the Engineer.

4. BID ITEM NOTES AND METHOD OF MEASUREMENT FOR PAYMENT

Only the bid items listed will be measured for payment. All other items required to complete the vehicle detection installation shall be incidental to other items of work. Payment at the contract unit price shall be full compensation for all materials, labor, equipment and incidentals to furnish and install these items.

4.1. Bore and Jack Pipe – 2”

Bore and jack pipe – 2” shall be furnished, installed, and measured for payment per the *Standard Specifications for Road and Bridge Construction*.

4.2. Conduit

Conduit shall include furnishing and installing specified conduit in accordance with the specifications. This item shall include conduit fittings, bodies, boxes, weatherheads, expansion joints, couplings, caps, conduit sealant, electrical tape, clamps, bonding straps and any other necessary hardware. Conduit will be measured in linear feet.

4.3. Electrical Service

Electrical Service shall include furnishing and installing all necessary materials and payment of all fees toward the complete installation of an electrical service which has passed all required inspections. Incidental to this item shall be furnishing and installing:

- Meter-base per utility company’s specifications
- Service disconnect panel per utility company’s specifications
- Meter base and service disconnect entrance hubs, waterproof
- Service entrance conductors
- Rigid steel conduit
- Rigid steel conduit fittings
- Conduit straps
- Weatherhead
- Duplex GFCI receptacle, 120-volt, 20-amp
- Ground rod with clamp
- Grounding conductor

Also incidental to this item shall be any necessary clearing of right of way for the electrical service drop.

Electrical service will be measured in individual units each.

4.4. Flashing Arrow

Flashing Arrow shall be furnished, installed, and measured for payment per the *Standard Specifications for Road and Bridge Construction.*

4.5. Galvanized Steel Cabinet

Galvanized Steel Cabinet shall include furnishing and installing galvanized steel cabinet on post as specified. Incidental to this item shall be furnishing and installing grounding hardware, and any necessary post/pole mounting hardware. Also incidental to this item shall be furnishing and installing the required number of terminal blocks and connection of all

sensors to the terminal blocks. Galvanized Steel Cabinet will be measured in individual units each.

4.6. Install Pad Mount Enclosure

Install Pad Mount Enclosure shall include installing a Department-furnished enclosure as specified on the detail sheets.

This item shall include obtaining the enclosure from KYTC and transporting it to the installation site and furnishing and installing the following:

- Concrete foundation (including any excavation necessary)
- Anchor bolts, lock washers, and nuts
- Conduit
- Conduit fittings (including grounding bushings)
- Weatherhead
- Terminal Strip(s)
- Ground rod with clamp
- Grounding conductor

Install Pad Mount Enclosure will be measured in individual units each.

4.7. Install Controller Cabinet

Install Controller Cabinet shall include installing a Department-furnished cabinet as specified on the detail sheets.

This item shall include obtaining the cabinet from KYTC and transporting it to the installation site and furnishing and installing the following:

- Conduit
- Conduit Fittings
- Terminal Strip(s)
- Ground rod with clamp
- Grounding conductor

Install Controller Cabinet will be measured in individual units each.

4.8. Junction Box Type 10" x 8" x 4"

Junction Box Type 10”x8”x4” shall include furnishing and installing specified junction box in accordance with the specifications. This item shall include connectors, splice sleeves, conduit fittings, mounting materials and any other items required to complete the installation. Incidental to this item shall be furnishing and installing specified post (wood, channel, metal, etc.) as required for the installation. Junction Box Type 10”x8”x4” will be measured in individual units each.

4.9. Junction Box Type A, B, or C

Junction Box Type A, B, or C shall include furnishing and installing specified junction box in accordance with the specifications. This item shall include excavation, furnishing and installing #57 aggregate, backfilling around the box, and restoration of disturbed areas to the satisfaction of the Engineer. Incidental to this item shall be furnishing and installing a

grounding conductor bonding all conduit grounding bushings in the box. Junction Box Type A, B, or C will be measured in individual units each.

4.10. Loop Saw Slot and Fill

Loop Saw Slot and Fill shall include sawing and cleaning saw slots and furnishing and installing conduit sealant, loop sealant, backer rod, grout, or other specified material. Loop Saw Slot and Fill will be measured in linear feet of sawed slot.

4.11. Maintain and Control Traffic

Maintain and Control Traffic shall be measured for payment per the *Standard Specifications for Road and Bridge Construction.*

4.12. Open Cut Roadway

Open Cut Roadway shall include excavating trench (sawing and chipping roadway) to dimensions as indicated on the detail sheets and furnishing and placing concrete, steel reinforcing bars, and asphalt. This item also includes restoring any disturbed sidewalk to its original condition. Open Cut Roadway will be measured in linear feet.

4.13. Piezoelectric Sensor

Piezoelectric sensor (piezo) shall include sawing and cleaning saw slots and furnishing and installing piezo in accordance with the specifications. This item shall include furnishing and installing lead-in wire, conduit sealant, encapsulation material, backer rod, grout, testing, and accessories. Piezo will be measured in individual units each.

4.14. Pole – 35’ Wooden

Pole – 35’ Wooden shall include excavation, furnishing and installing specified wood pole, backfilling and restoring disturbed areas to the satisfaction of the Engineer. Incidental to this item shall be furnishing and installing guy wire, anchor and anchor rod, strand vise, and guy guard, if specified.

Pole – 35’ Wooden will be measured in individual units each.

4.15. Signs

Signs shall be furnished, installed, and measured for payment per the *Standard Specifications for Road and Bridge Construction.*

4.16. Trenching and Backfilling

Trenching and Backfilling shall include excavation, warning tape, backfilling, temporary erosion control, seeding, protection and restoration of disturbed areas to original condition. This item shall include concrete, asphalt or approved replacement material for sidewalks, curbs, roadways, etc. (if required). Trenching and backfilling will be measured in linear feet.

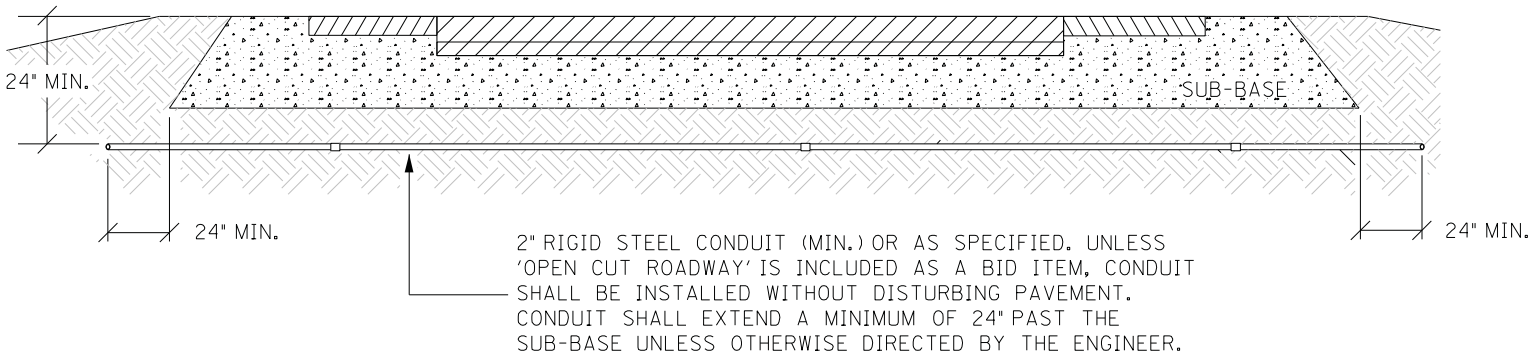
4.17. Wire or Cable

Wire or cable shall include furnishing and installing specified wire or cable within saw slot, conduit, junction box, cabinet, or overhead as indicated on the detail sheets. Incidental to this item shall be the labeling of all wires and cables in each junction box, cabinet and splice

box, and furnishing and installing other hardware required for installing cable. Wire or Cable will be measured in linear feet.

4.18. Wood Post

Wood Post shall include furnishing and installing wood post as specified. This item shall include excavation, furnishing and placing concrete (if required), backfilling around the post, and restoration of disturbed areas to the satisfaction of the engineer. Wood Post will be measured in individual units each.

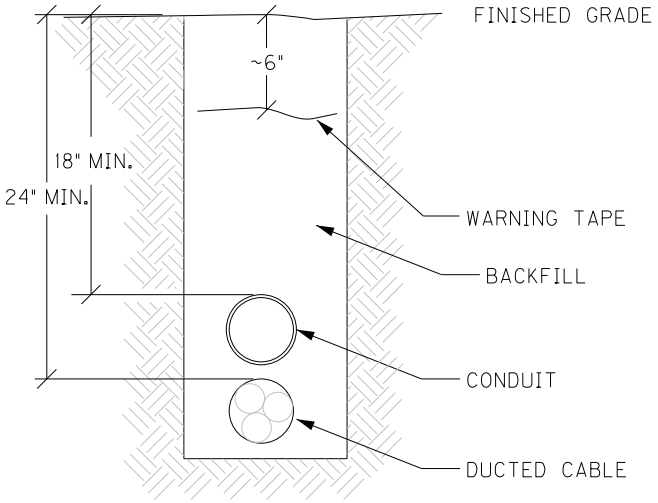


CONDUIT UNDER PAVEMENT

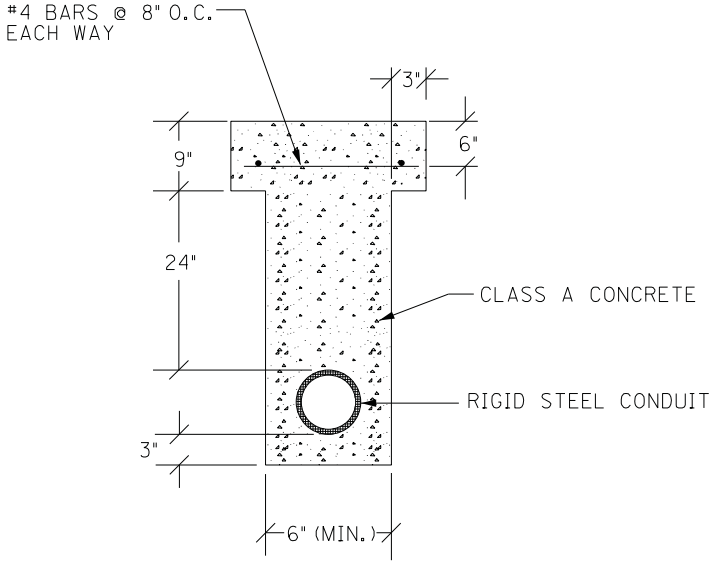
TOTAL TRENCH WIDTH SHALL BE 3" (NOM.) WIDER THAN THE SUM OF THE OUTSIDE DIAMETER(S) OF THE CONDUIT(S) INSTALLED. CONDUIT(S) SHALL BE CENTERED IN TRENCH.

CONTRACTOR SHALL PLACE BACKFILL IN LIFTS (9" MAX.) COMPACT BACKFILL, AND RESTORE DISTURBED AREA TO THE SATISFACTION OF THE ENGINEER

CONTRACTOR SHALL INSTALL UNDERGROUND UTILITY WARNING TAPE ABOVE CONDUIT AS SHOWN.



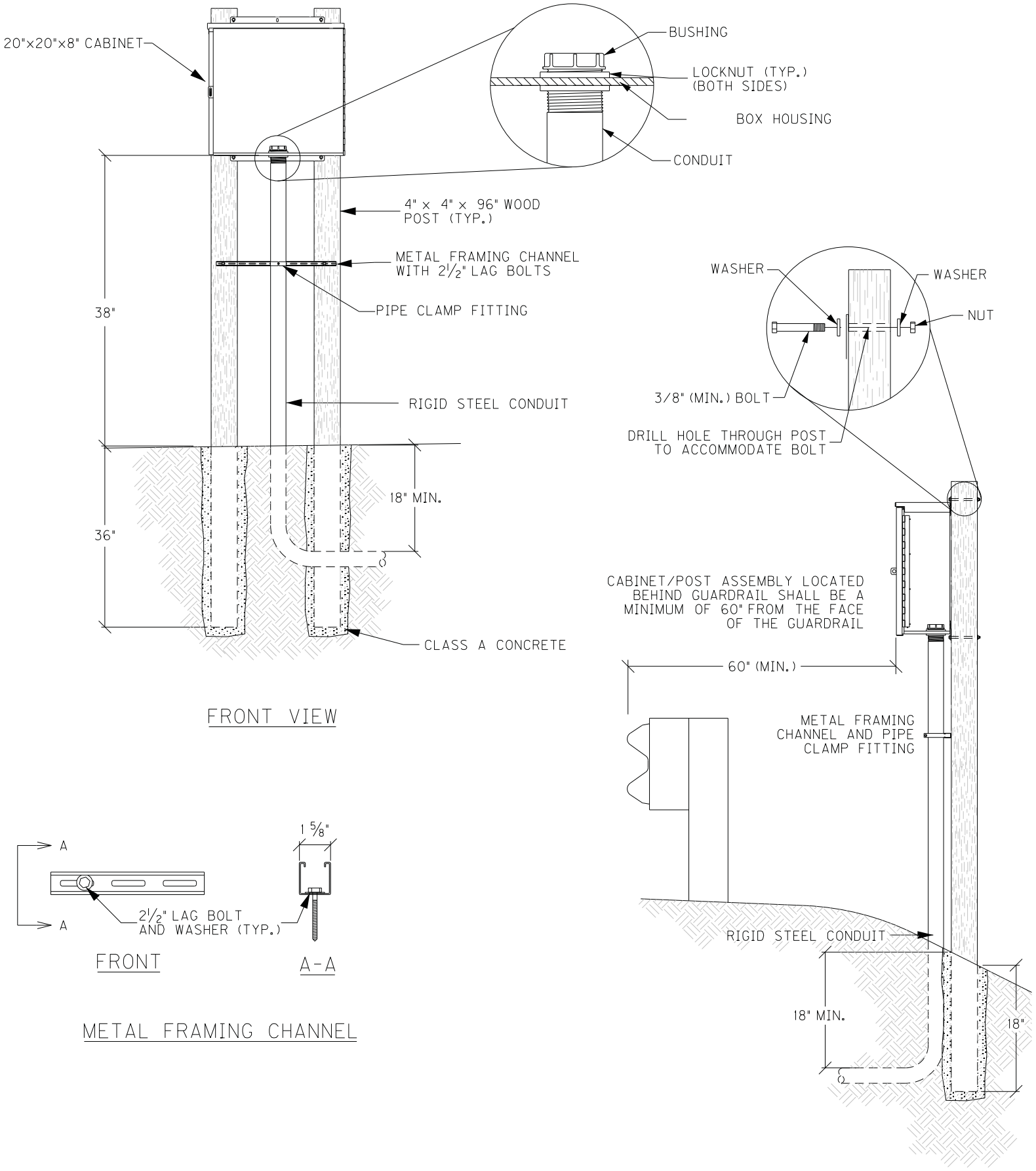
CONDUIT TRENCH



OPEN CUT PAVEMENT DETAIL

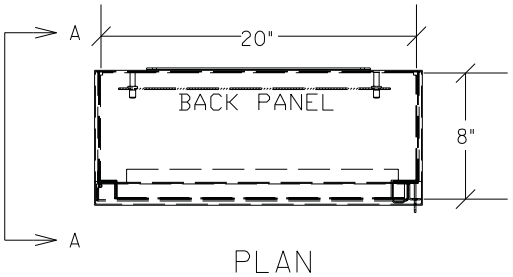
CONDUIT INSTALLATION

NOT TO SCALE

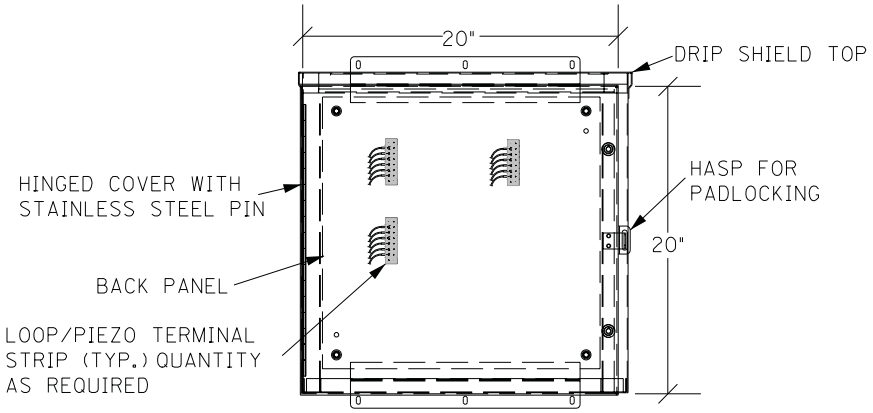


GALVANIZED STEEL CABINET
DOUBLE POST ASSEMBLY

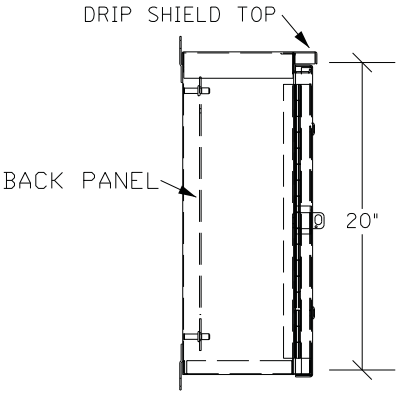
NOT TO SCALE



PLAN

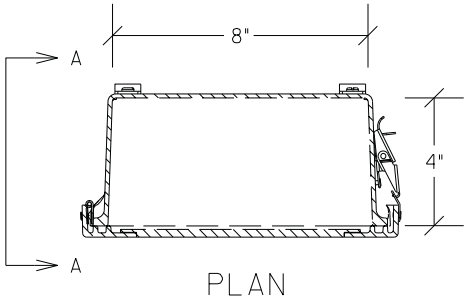


ELEVATION

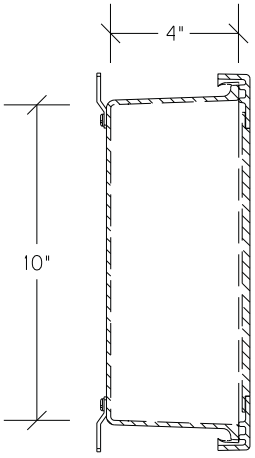


SECTION A-A

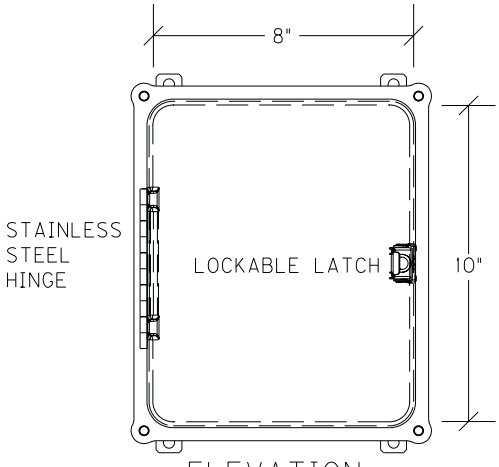
GALVANIZED STEEL CABINET



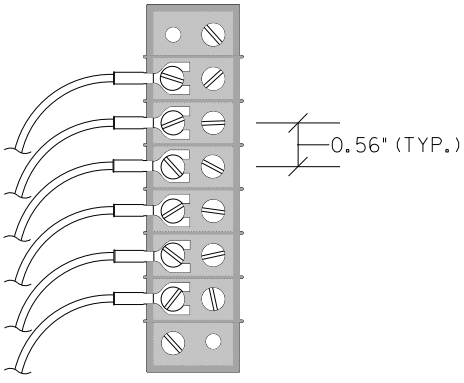
PLAN



SECTION A-A



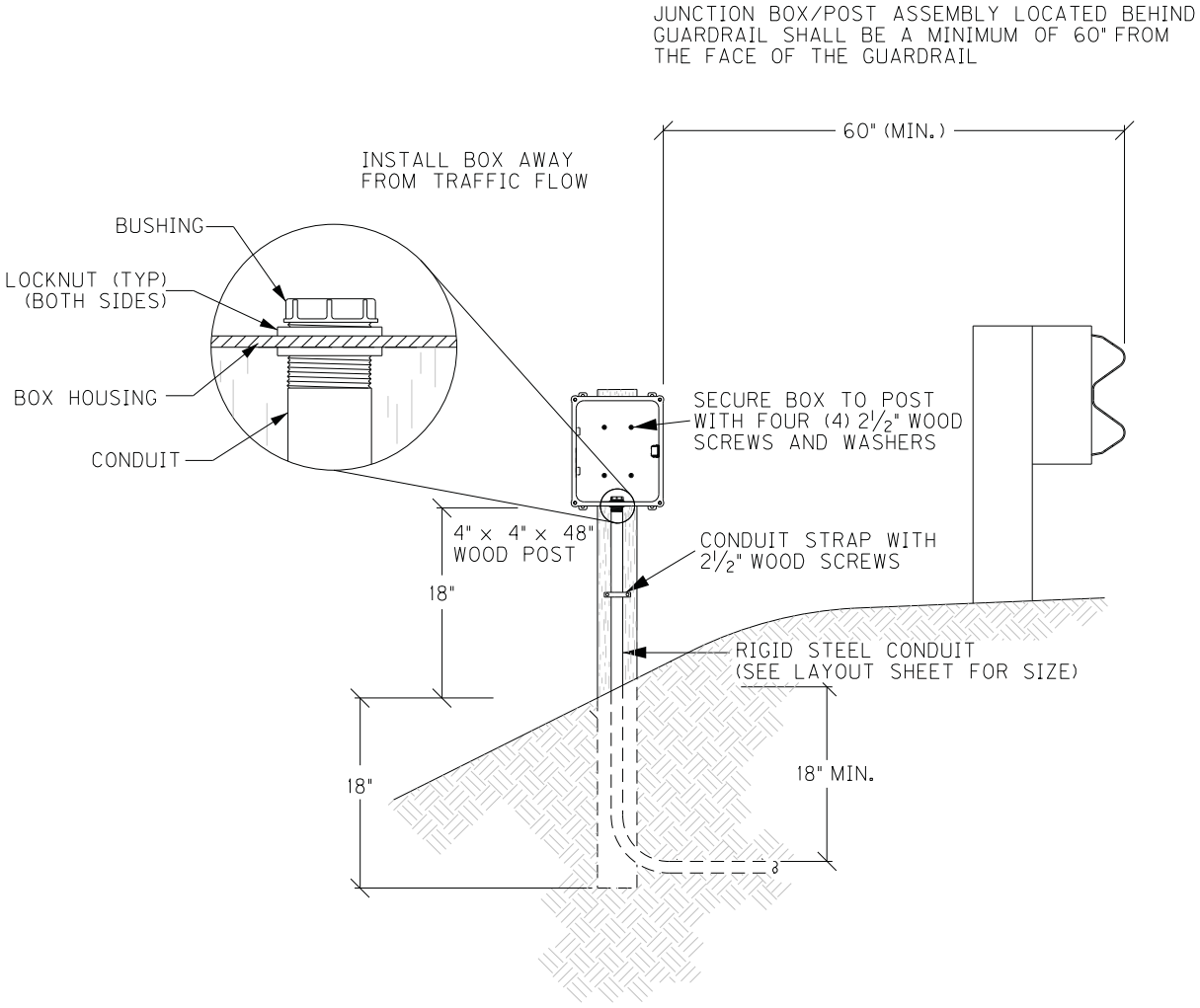
ELEVATION



TERMINAL STRIP (TYP.)

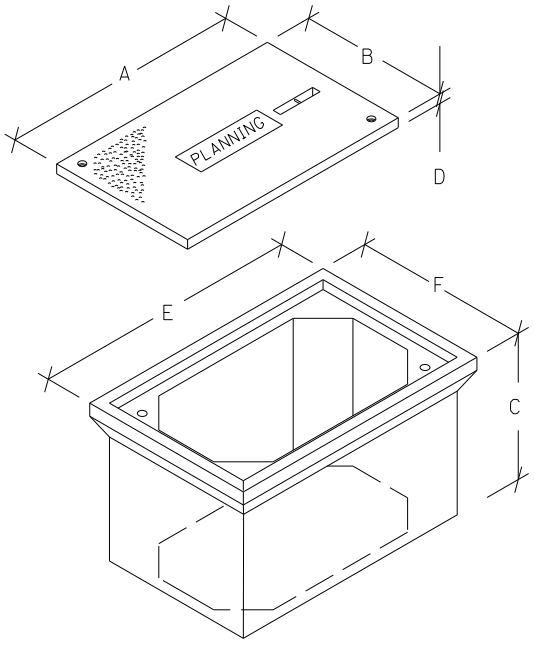
JUNCTION BOX 10"x8"X4"

NOT TO SCALE



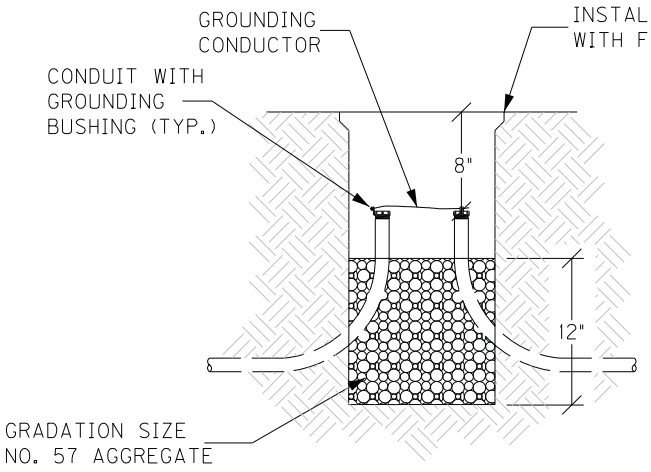
JUNCTION BOX 10"x8"x4" AND POST ASSEMBLY

NOT TO SCALE



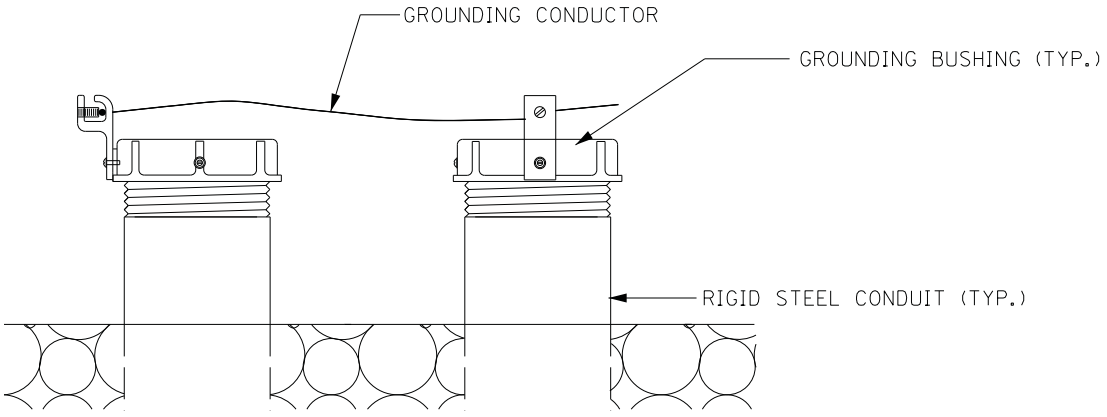
JUNCTION BOX DIMENSIONS (NOMINAL)						
	A	B	C	D*	E	F
TYPE A	23"	14"	18"	2"	25"	16"
TYPE B	18"	11"	12"	1¾"	20"	13"
TYPE C	36"	24"	30"	3"	38"	26"

* MINIMUM
STACKABLE BOXES ARE PERMITTED



ELEVATION

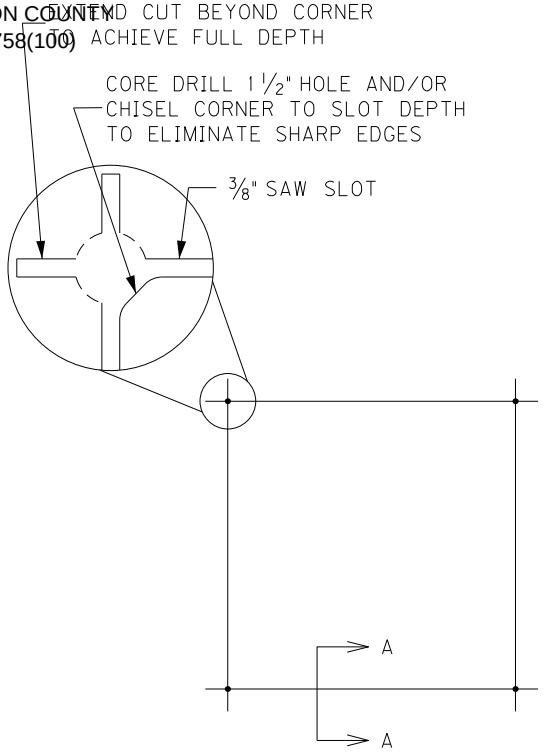
WHERE REQUIRED, JUNCTION BOX SHALL BE ORIENTED SUCH THAT THE DIMENSIONS COMPLY WITH THE NATIONAL ELECTRICAL CODE.



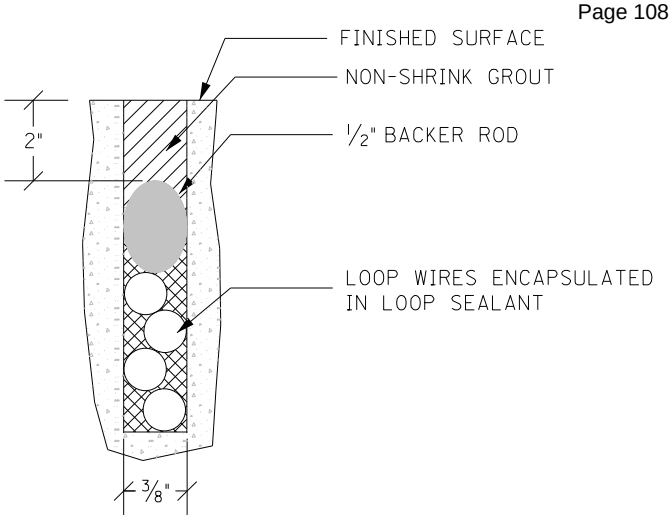
GROUNDING DETAIL

JUNCTION BOX - TYPE A, TYPE B, TYPE C

NOT TO SCALE



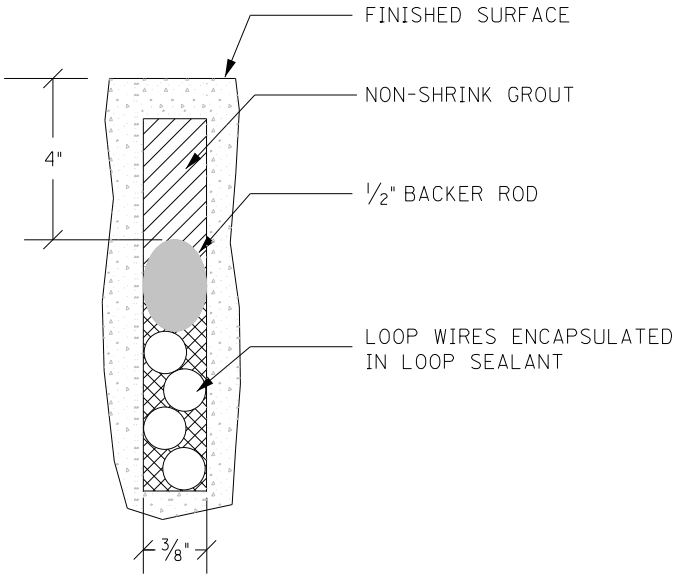
SAW CUT PLAN



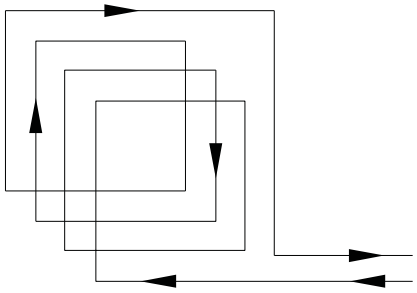
SECTION A-A (CONCRETE)

UNLESS SPECIFIED OTHERWISE, ALL LOOPS SHALL BE 6' x 6' SQUARE, CENTERED IN EACH LANE, WITH FOUR TURNS OF 14 AWG LOOP WIRE.

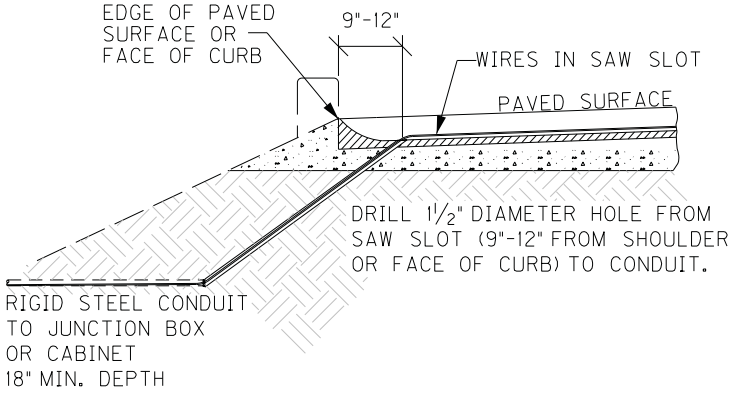
ADJACENT SAW SLOTS SHALL BE A MINIMUM OF 12" APART.



SECTION A-A (ASPHALT)



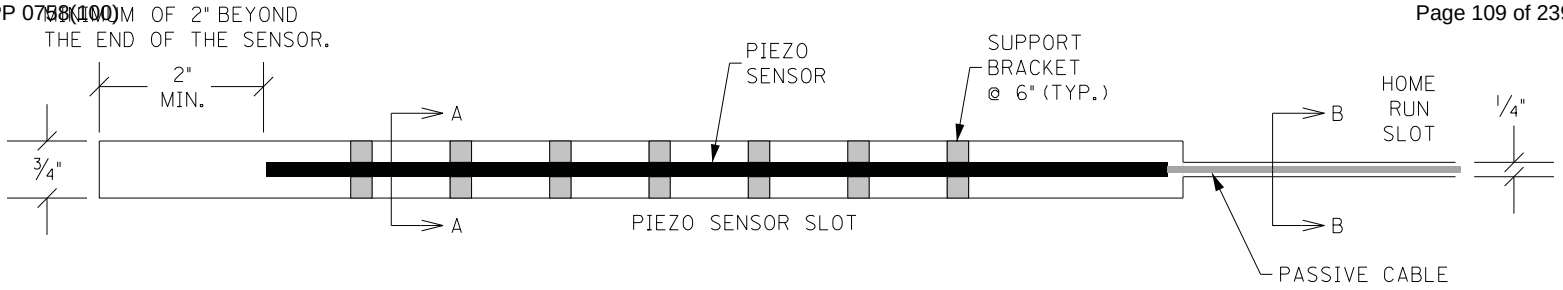
WIRING PLAN



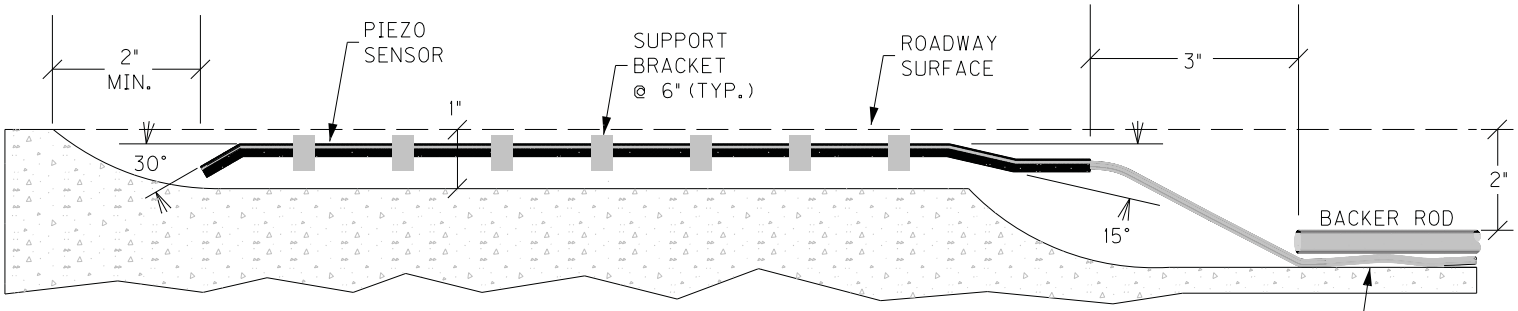
SAW SLOT EDGE OF PAVEMENT TRANSITION

INDUCTIVE LOOP DETECTOR

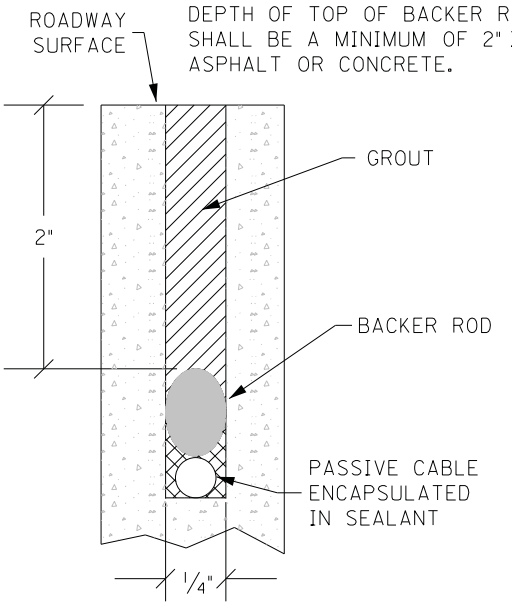
NOT TO SCALE



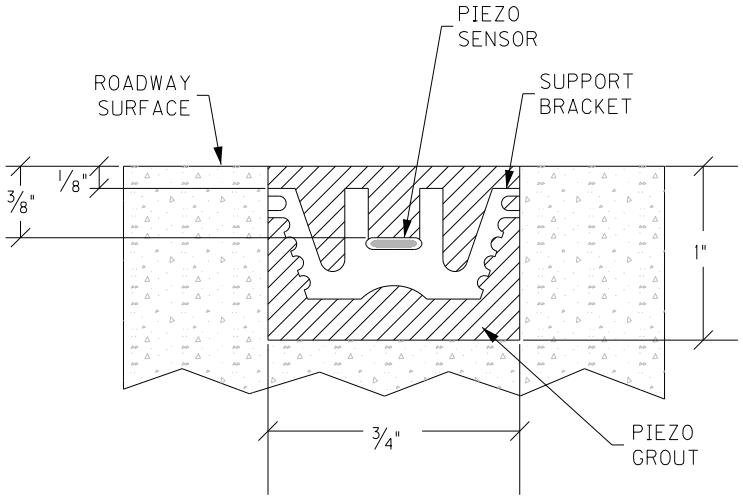
PLAN



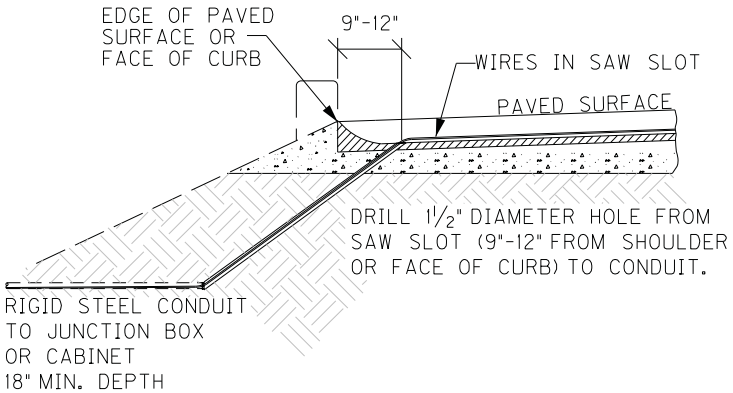
ELEVATION



SECTION B-B



SECTION A-A



SAW SLOT EDGE OF PAVEMENT TRANSITION

PIEZOELECTRIC SENSOR INSTALLATION

NOT TO SCALE

KENTUCKY TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS
TRAFFIC MANAGEMENT PLAN

County: KENTON Item No.: 6-0017.04

Federal Project No.: HPP 0758(100)

Project Description: The repair will include concrete deck patching, latex overlay, roadway lighting, traffic loops, bridge steel repairs, joint replacements, and pier patching.

Roadway Classification: ☒ Urban ☐ Rural

☐ Local ☐ Collector ☐ Arterial ☒ Interstate

ADT (Current): 187,131 AM Peak (Current): 12,317 PM Peak (Current): 14,518

Project Designation: ☒ Significant ☐ Other:

Traffic Control Plan Design:

Taper and Diversion Design Speeds 45 **mph**

Minimum Lane Width: (ft) 11 Minimum Shoulder Width (ft): 1.0

Minimum Bridge Width (ft): 13'0"

Minimum Radius: Maximum Grade:

Minimum Taper Length Referenced Minimum Intersection Level of Service N/A

Existing Traffic Queue Lengths 0 Projected Traffic Queue Lengths Large

Comments:

Using A+B bidding we are trying to minimize the impact to users. Queue Lengths are very large for the duration of the B component of the project. Details of the detour routes and diversions are shown in the MOT plans. Rasor Marketing has been hired to inform the public of work schedules and traffic conditions throughout the project.

KENTUCKY TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS
TRAFFIC MANAGEMENT PLAN

Discussion:

1) Public Information Plan

Prepare with assistance from: ■ KYTC or ■ Others:

Identify Trip Generators N/A

Identify Types of Road Users Referenced

Public Information Message Referenced

Railroad Involvement N/A

Address Pedestrians,

Bikes Mass Transit N/A

Address Timing,

Frequency, Updates,

Effectiveness of Plan Referenced

Public Information Strategies to be used: Referenced

KENTUCKY TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS
TRAFFIC MANAGEMENT PLAN

2) Temporary Traffic Control Plan (For Each Phase of Construction) All Phases

Exposure Control Measures		Positive Protection Measures	
Is Road Closure Allowed?	N/A	Address Drop Off Type: Protection Criteria	N/A
Detour Conditions	Referenced	Temporary Barrier Requirements	Referenced
Working Hour Restrictions	Referenced	Evaluation of Existing Guardrail Conditions	Referenced
Holiday or Special Event Work Restrictions	N/A	Address Temporary Drainage	Referenced
Evaluation of Intersection LOS	N/A	**Uniformed Law Enforcement Officers**	N/A
Evaluation of Queue Lengths	Referenced	**Payment for Traffic Control***	Referenced
Evaluation of User Costs and Incentives/Disincentives	Referenced	Method of Project Bidding Referenced	
Address Pedestrians, Bikes, Mass Transit	N/A	Special Notes	
Work Vehicles and Equipment	Referenced		

*Payment for traffic control items shall be in accordance with the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction.

Comments:

Using A+B bidding we are trying to minimize the impact to users. Queue Lengths

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
TRAFFIC MANAGEMENT PLAN
Item No. 06-0017.04

APPROVAL:

Project Manager	03/30/2017 Date
Public Information Officer	3/31/17 Date
TEBM for Project Delivery and Preservation I	3/30/17 Date
TEBM for Engineering Support	3/31/17 Date
FHWA Representative	Digitally signed by MICHAEL M LOYSELLE DN: c=US, o=U.S. Government, ou=FHWA FHWAFrankfortKY, ou=DOT FHWAFrankfortKY, cn=MICHAEL M LOYSELLE Date: 2017.04.06 15:20:34 -04'00' Date

Revisions to the TMP require review/approval by the signatories.

This approval is conditional to resolution of comments made by FHWA. See comments made by FHWA on subsequent pages, as well as within the project's FHWA Review Report, for further KYTC attention/action.
M. Loyselle
04/06/17

BRENT SPENCE BRIDGE REHABILITATION PROJECT
191.2 - 191.7 Milepost
KENTON COUNTY ITEM # 6-0017.04

The primary goal of the Public Information Plan (PIP) is to inform the motoring public and area stakeholders of project information including Maintenance of Traffic (MOT) which includes lane closures. Rasor Marketing will coordinate and disseminate to stakeholders and the media appropriate information regarding the construction plans.

- Elected Officials
  - **KENTON COUNTY, KENTUCKY**

    - Kenton County Judge Executive, Kris Knochelmann (859) 392-1400; kris.knochelmann@kentoncounty.org
    - Kenton County Sheriff, Chuck Korzenborn (859) 392-1800; chuck.korzenborn@kentoncounty.org
    - State Representative Adam Koenig (502) 564-8100 Ext. 689; adam.koenig@lrc.ky.gov
    - State Senator John Schickel – (502) 564-8100 Ext. 617; John.Schickel@lrc.ky.gov
    - Covington Mayor, Joe Meyer (859) 292-2127;
    - jumeyer@covingtonky.gov

Local Agencies

- Northern Kentucky Chamber of Commerce – (859) 578-8800, info@nkychamber.com
- Kenton County Assistant Superintendent Transportation & Student Support Services – Gerald Turner – (859) 356-5050 gerald.turner@kenton.kyschools.us
- Kentucky State Police – Dry Ridge Post, (859) 428-1212
- Kentucky State Police Post 6 Commander, David P. Jude (859) 428-1212; david.jude@ky.gov
- Kenton County Executive Director of Emergency Communications, Ed Butler (859) 392-1992 - ed.butler@kentoncounty.org
- Kenton County: Erlanger Dispatch (859) 727-2424
- Kenton County Police Chief, Spike Jones (859) 392-1940 spike.jones@covingtonky.gov
- Ft Mitchell Dispatch (859) 356-3191
- City of Covington Police Department, Asst. Police Chief, Col. Brian Steffen, 859-292-2220 - bsteffen@covkypd.org
- City of Covington Interim City Manager, Loren Wolff, 859-292-2154

lwolff@covingtonky.gov
- Buckeye Traffic – Transportation Management Center, 614-387-2438 StatewideTMC@dot.state.oh.us

HAMILTON COUNTY, OHIO

Local Agencies

- City of Cincinnati Police Department, Beth Christenson, Data Management, 513-263-8145 - ECSITSUPPORT@cincinnati-oh.gov or elizabeth.christenson@cincinnati-oh.gov
- City of Cincinnati Fire Department, Jack Klosterman, Captain of Emergency Communications Center, 513-260-5690; john.klosterman@cincinnati-oh.gov
- City of Cincinnati Mayor, John Cranley, 513-352-3250; mayor.cranley@cincinnati-oh.gov
- City of Cincinnati City Manager, Harry Black, 513-352-3243; CityManager@cincinnati-oh.gov
- Hamilton County Sheriff, Mike Robinson, Communications, 513-235-9952, 513-946-6482; mrobinson@sheriff.hamilton-co.org
- Hamilton County EMA Director, Nick Crossley, 513-263-8201; 513-263-8200; nick.crossley@hamilton-co.org

- Utility Companies
  - Local utility companies are kept apprised of this project at the monthly utility coordination meetings hosted by District 6

TRUCKING FIRMS AND OUT OF STATE STAKEHOLDERS

Information will be distributed electronically to trucking firms via Rick Taylor at the Department of Vehicle Regulation (502-564-7000; rick.taylor@ky.gov) will also be posted on the 511 website (www.511.ky.gov) and on the 511 telephone information system. Overweight/Over-dimensional Permits Information (502-564-1257; Samuel.Drake@ky.gov).

PRESENTATIONS

A project description including anticipated schedule will be provided to the media, stakeholders and other emergency service agencies via e-mail prior to construction. Information will be provided to these groups via traffic advisories, press releases, the

District 6 website and the weekly District 6 Road Report of Construction and Maintenance Activities.

MEDIA RELATIONS

Rasor Marketing will prepare an initial news release regarding the contract award for the project. Rasor will conduct interviews with the media throughout the project duration to keep the public informed of construction progress. Traffic advisories will be submitted to the media when a change in the MOT occurs. The contractor must provide to Rasor Marketing via the Resident Engineer notification of any change in the MOT at least three (3) days prior to the change.

SPECIAL NOTE
FOR
FIXED COMPLETION DATE AND DISINCENTIVE FEES
"A+B"

Fixed Completion Dates and "A+B" Bidding

The procedure for evaluation of bids on this project involves an "A+B" concept.

The "A" component of the bid involves the dollar amount for all work to be performed under the contract.

The "B" component involves the number of calendar days that **the Brent Spence Bridge (mainline I-71 and I-75 on the truss spans, the Kentucky approach, and the Ohio approach and the associated ramps)** is out of its normal configuration for times other than those allowed in the Maintenance of Traffic (MOT) plans.

This project will have a fixed completion date of **September 1, 2017** for completion of work requiring the Brent Spence to be out of its normal configuration for times other than those allowed in the MOT plans. All other work will have a fixed completion date of **November 15, 2017**.

A disincentive fee of **$200,000 per day** will be charged for each calendar day that all work is not completed after **November 15, 2017.** These fees are in addition to contract liquidated damages per the Standard Specifications.

Contrary to Section 108.09 of the Standard Specifications, **the $200,000 per day disincentive and/or contract liquidated damages will be charged during the months of December through March if all required work is not completed.**

Preparation of Bid Proposal

The work is to be performed in a high traffic area. There are phases identified in the project that will require the contractor to reduce the number of mainline I-71 / I-75 lanes in both directions. The peak hour traffic is such that having the number of lanes reduced may create significant traffic delays. To reduce the disruption to the travelling public the contractor(s) will bid the number of calendar days when traffic is out of its normal configuration. "B" days will start on the Monday immediately following the initial traffic switch when either direction of traffic is shifted into the Phase I configuration as shown in the Maintenance of Traffic (MOT) plans. "B" days will continue to count until both directions of traffic are returned to the normal, permanent configuration. Short term lane closures may be utilized after permanent configuration is restored during low volume traffic hours as allowed in the Maintenance of Traffic (MOT) plans. Work below the Kentucky approach that does not require placement of traffic control devices on the structure will not count toward the "B" days.

In addition to the requirements of Section 102 of the Standard Specifications, the bidder shall establish the total number of calendar days that traffic will be restricted on the Brent Spence Bridge as described above between necessary to complete the work in accordance with the plans and specifications and show this number in the bid proposal. For the purposes of bidding this contract all bidders will bid the number of consecutive calendar days (B) necessary to complete all work requiring mainline I-71/I-75 and the associated ramps to be out of its normal configuration. The "B" component will have a daily dollar amount that will be used to calculate the total "B" component for bid comparison purposes only. The value of each day of work will be **$200,000.**

A maximum of 63 "B" days will be allowed to be bid for this project.

Proposal Guaranty

As a supplement to Section 102 of the 2012 Standard Specifications, it will not be necessary for the Proposal Guaranty to include an amount necessary to cover the product of days bid times the daily cost.

Consideration of Bids

Each bid submitted shall consist of two parts:

A The dollar amount for all work to be performed under the contract.
B Number of calendar days I-75 out of normal configuration (as defined above)

The lowest and best bid will be determined by the Department as the lowest combination of the two parts according to the following formula:

$$BID = A + \lfloor B \rfloor * 200{,}000$$

Disincentive Fees for Work Beyond the Days Bid

Upon the beginning of work on the Brent Spence Bridge with traffic out of its normal configuration as defined above, time will be charged against the respective "B" component. A day will be charged for any day that I-71 / I-75 traffic remains out of normal configuration. After the number of days bid is reached any subsequent restriction that traffic is out of its normal configuration will result in a disincentive charge to the contractor. The following disincentive schedule will be applied for each hour or fraction of an hour that I-71 / I-75 traffic remains out of normal configuration:

Table 1. Disincentive Schedule for All Mainline I-75 Construction work

Time of Misalignment	Disincentive Fee ($/hour)
5:00AM-9:00PM	$12,500

The disincentive fees for work beyond the number of days bid will be charged in addition to any other disincentive fees or liquidated damages if the work continues beyond the fixed completion date listed above.

Contrary to Section 108.09 of the Standard Specifications, **the $12,500 per hour disincentive will be charged during the months of December through March if the Brent Spence Bridge traffic is not restored to its normal configuration.**

THERE IS NO MAXIMUM OR CAP TO DISINCENTIVE FEES FOR THIS PROJECT.

Ramp Closures

There are ramps identified in the plans that will be allowed to be closed to facilitate work on the project. The allowable closures are listed in the plans. Any ramp that remains closed beyond the allotted times that are shown in the plans will be charged disincentive fees based on the schedule below:

Table 2. Disincentive Schedule for Ramp Closures

Extended Time of Ramp Closure	Disincentive Fee ($/hour)
First Hour	$4,000
Successive Hours	$8,000

Mainline Lane Closures

The Contractor will be allowed to reduce the number of mainlineI-71 /I-75 lanes open to traffic in each direction when the project Maintenance of Traffic scheme is not established. From 9 PM to 12 AM (midnight) the Contractor will be allowed to perform a single lane closure. From 12 AM (midnight) until 5 AM, the Contractor will be allowed to perform a double lane closure. Additional, lane closures will not be permitted while the Maintenance of Traffic scheme is implemented; except, during placement or adjustment of striping and temporary concrete barrier wall, a lane closure must be in place to create positive separation between the traveling public and the maintenance of traffic operation. A single lane closure for striping and barrier wall placement, in addition to the Maintenance of Traffic Scheme will be allowed during the Low Volume Traffic Hours defined in the Maintenance of Traffic plans. Any time a mainline lane in either the northbound or southbound direction is closed beyond the allotted times specified above and in the plans, disincentive fees will be charged based on the schedule below:

Table 3. Disincentive Schedule for Mainline I-75 Lanes Closed Outside Allotted Times

Time of Lane Closure	Disincentive Fee ($/hour) Northbound & Southbound
Each Hour	$12,500

Time Extensions

The Engineer will not allow any extension to the number of calendar days bid, or ramp closure periods, for weather or resulting conditions. A calendar day will not be charged against the number of days bid for delays caused by earthquakes, tornadoes, or other similar catastrophic forces.

No extension to the number of calendar days bid, or ramp closure periods, will be granted due to over-run of contract quantities. The engineer will grant an extension of the number of calendar days bid for supplemental work not previously identified in the contract that must be performed when traffic is out of its normal configuration. The Engineer will determine the number of additional calendar days due for the additional work by dividing the value of the additional work by the value of the original Contract work and multiply this ratio by the number of calendar days from Notice to Begin work to September 1, 2017.

If supplemental work must be performed when traffic is out of its normal configuration, added calendar days will be added to the September 1, 2017, milestone completion date on a day for day basis. If supplemental work can be performed when traffic is in its normal configuration, added calendar days will be added to the November 15, 2017, fixed completion date on a day for day basis. Extensions of the completion dates may include periods of time when weather conditions may not be conducive to the work required by the contract. ALL construction operations for the project will be required to be completed by the extended completion date and in accordance with any weather limitations specified in the Kentucky 2012 Standard Specifications for Road and Bridge Construction, the contract proposal or the contract plans. No further extension of contract time will be granted due to inclement weather or temperature limitations experienced during the time extension.

KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF RIGHT OF WAY & UTILITIES

TC 62-226
Rev. 01/2016
Page 1 of 1

RIGHT OF WAY CERTIFICATION

☒ Original ☐ Re-Certification

RIGHT OF WAY CERTIFICATION

ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
06-0017.00	Kenton	FD52 12F0 059 7200302	IMD 75-8 (84)

PROJECT DESCRIPTION

Project Brent Spence Rehabilitation: OHIO PID: 103711 "Overlay on BSB and Joints on Ohio Approach"
Ohio PID: 103712 "Painting of BSB & partial Paint on Ohio Approach

☒ No Additional Right of Way Required

Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.

☐ Condition # 1 (Additional Right of Way Required and Cleared)

All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.

☐ Condition # 2 (Additional Right of Way Required with Exception)

The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract

☐ Condition # 3 (Additional Right of Way Required with Exception)

The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.

Total Number of Parcels on Project		EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Number of Parcels That Have Been Acquired			
Signed Deed			
Condemnation			
Signed ROE			

Notes/ Comments (Use Additional Sheet if necessary)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Robert Yeager, by Brian Davis
Signature		Signature	Robert Yeager
Date		Date	03/14/2017
Right of Way Director		**FHWA**	
Printed Name	D.M. Lay	Printed Name	David Whitworth
Signature		Signature	
Date	15 Mar 17	Date	March 17, 2017

UTILITIES AND RAIL CERTIFICATION NOTE

BOONE COUNTY, IMD 75-8 (84), DBP 75-8 085
FD52 1200 059 72003 02D
BRENT SPENCE BRIDGE MAINTENANCE
SIX YEAR PLAN ITEM NUMBER 6-17.40

Utility coordination efforts determined that no significant utility relocation work is required to complete the project. Any work pertaining to these utility facilities is defined in the bid package and is to be carried out as instructed by the Kentucky Transportation Cabinet. The contractor will be responsible for any coordination or adjustments that are discussed or quantified in the proposal.

THE FOLLOWING RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☐ **No Rail Involved** ☐ **Minimal Rail Involved (See Below)** ☒ **Rail Involved (See Below)**

UNDERGROUND FACILITY DAMAGE PROTECTION – BEFORE YOU DIG

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. The contractor is instructed to contact KY 811 for the location of existing underground utilities. Contact shall be made a minimum of two (2) and no more than ten (10) business days prior to excavation.

The contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY 811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom are to be contacted through their individual Protection Notification Center. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area. Non-compliance with these directives can result in the enforcement of penalties.

SPECIAL CAUTION NOTE – PROTECTION OF UTILITIES

The contractor will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The

Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs.

UTILITIES AND RAIL CERTIFICATION NOTE

BOONE COUNTY, IMD 75-8 (84), DBP 75-8 085
FD52 1200 059 72003 02D
BRENT SPENCE BRIDGE MAINTENANCE
SIX YEAR PLAN ITEM NUMBER 6-17.40

The utility facilities as noted in the previous section(s) have been determined using data garnered by varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities defined may not be inclusive of all utilities in the project scope and are not Level A quality, unless specified as such. It is the contractor's responsibility to verify all utilities and their respective locations before excavating.

Please Note: The information presented in this Utility Note is informational in nature and the information contained herein is not guaranteed.

AREA UTILITIES CONTACT LIST AS PROVIDED BY KY 811

Utility Company/Agency	Contact Name	Contact Information

SPECIAL NOTES FOR PROTECTION OF RAILROAD INTEREST

CSX TRANSPORTATION, INC.

I. AUTHORITY OF RAILROAD ENGINEER AND STATE ENGINEER:

A. The authorized representative of the Railroad Company, hereinafter referred to as Railroad Engineer, shall have final authority in all matters affecting the safe maintenance of Railroad operations and property.

B. The authorized representative of the State, hereinafter referred to as the Engineer, shall have authority over all other matters as prescribed herein and in the Project Specifications.

II. NOTICE OF STARTING WORK:

A. The Contractor shall not commence any work on Railroad rights of way until he has complied with the following conditions:

1. Given the Railroad written notice, with copy to the Engineer who has been designated to be in charge of the work, **at least ten (10) days in advance** of the date he proposes to begin work on Railroad rights of way. The notice must refer to Railroad Agreement with the State by the date of the Agreement. **If flagging service is required, such notice shall be submitted at least thirty (30) days in advance** of the date scheduled to commence work. The Railroad's Contact information is on the Summary Sheet.

2. Obtain written authorization from the Railroad to begin work on Railroad rights of way, such authorization to include an outline of specific conditions with which he must comply.

3. Obtain written approval from the Railroad of Railroad Protective Insurance Liability coverage as required by paragraph 14 herein.

4. Furnish a schedule for all work within the Railroad rights of way as required by paragraph 7, B, 1.

B. The Railroad's written authorization to proceed with the work shall include the names, addresses, and telephone numbers of the Railroad's representatives who are to be notified as hereinafter required. Where more than one representative is designated, the area of responsibility of each representative shall be specified.

III. INTERFERENCE WITH RAILROAD OPERATIONS:

A. 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 poles, wires, and other facilities of tenants on the rights of way of the Railroad Company. The Contractor shall store materials so as to prevent trespassers from causing damage to trains or Railroad property and shall not use Railroad property without written permission from the Railroad. Whenever work is 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. Any work to be performed by the Contractor which requires flagging service or inspection service (watchman) shall be deferred by the Contractor until the flagging protection required by the Railroad is available at the job site.

B. 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, the Contractor shall make such provisions. If in the judgment of the Railroad Engineer, or his representative, such provisions are insufficient, the Railroad Engineer may require or provide such provisions, as he deems necessary at Contractor's cost and expense. In any event, such unusual provisions shall be at the Contractor's expense and without cost and/or time to the Railroad or the State.

IV. TRACK CLEARANCES

A. The minimum track clearances to be maintained by the Contractor during construction are shown on the Project Plans. However, before undertaking any work within Railroad rights of way, or before placing any obstruction over any track, the Contractor shall:

1. Notify the Railroad's representative **at least 72 hours in advance** of the work.

2. Receive assurance from the Railroad's representative that arrangements have been made for flagging service as necessary.

3. Receive permission from the Railroad's representative to proceed with the work.

4. Ascertain that the State Engineer has received copies of notice to the Railroad and of the Railroad's response thereto, and has approved the contractor's methods.

V. CONSTRUCTION PROCEDURES

A. General:

1. Construction work on Railroad property shall be:

   a) Subject to the inspection and approval of the Railroad.

   b) In accord with the Railroad's written outline of specific conditions.

   c) In accord with the Railroad's general rules, regulations and requirements including those relating to safety, fall protection and personal protective equipment, which the Contractor shall obtain from the Railroad.

   d) In accord with all Special Notes, Summaries, and Addendums.

2. The Railroad requires a submission of construction procedure that meets the requirements of these Special Notes and attachments. The Railroad's **submittal review period is thirty (30) days. Resubmissions will be reviewed within (30) days.**

3. All requirements of the *Construction Submission Criteria* shall be met. Requirements in addition to those in the *Construction Submission* Criteria are listed below in this document:

B. Excavation:

1. The sub grade of an operated track shall be **maintained with edge of berm at least 15'0" from centerline of track and not more than 24 inches below top of rail.** Contractor will not be required to make existing section meet this specification if substandard, in which case the existing section will be maintained.

2. Additionally, the Railroad Engineer may require installation of orange construction fencing for protection of the work area located on Railroad right of way.

C. Excavation of Structures:

1. The Contractor will be required to take special precaution and care in connection with excavating and shoring pits, and in driving piles, or sheeting for footings adjacent to tracks to provide adequate lateral support for the tracks and the loads which they carry, without disturbance of track alignment and surface, 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 submitted, with the stamp of an Engineer in the State of Kentucky, and approved by

the Engineer and the Railroad Engineer, but such approval shall not relieve the Contractor from liability.

2. Additionally, a walkway with handrail protection may be required as noted in Section XI herein.

D. Demolition, Erection, Hoisting

1. Railroad tracks and other railroad property must be protected from damage during the procedure. No crane or equipment may be set on the rails or track structure and no material may be dropped on Railroad property.

2. Loads shall not be supported while any trains are passing if that piece of equipment has the capacity to **foul a 50' envelope.**

3. The Railroad may require the Contractor to install filter fabric over the track and ballast to prevent any concrete dust or other construction debris from fouling the ballast. This will be determined during actual construction activities by the Railroad or its representatives. Fabric should extend at least 25 feet beyond the outside edges of the bridge. Fabric will remain in place until all construction activities are complete.

4. Temporary construction clearance: Ensure all falsework, bracing, or forms have a minimum vertical clearance of 23 feet above the top of the highest rail and a minimum horizontal clearance of 12 feet measured perpendicular to the centerline of the nearest track.

E. Blasting:

1. The Contractor shall obtain advance written approval of the Railroad Engineer and the Engineer for use of explosive on or adjacent to Railroad property. The request for permission to use explosives shall include a detailed blasting plan. If permission for use of explosives is granted, the Contractor will be required to comply with the following:

   a) No blasting shall be done without the presence of an authorized representative of the Railroad. **At least 10 days advance notice** to the person designated in the Railroad's notice of authorization to proceed (see Section II.B above) will be required to arrange for the presence of an authorized Railroad representative and such flagging as the Railroad may require.

2. The Railroad representative will:

   a) Determine the approximate location of trains and advise the Contractor the approximate amount of time available for the blasting operation and clean-up.

   b) Have the authority to order discontinuance of blasting if, in his opinion, blasting is too hazardous or is not in accord with these Special Notes.

F. Maintenance of Railroad Facilities:

1. The Contractor will be required to maintain all ditches and drainage structures free of silt or other obstructions which may result from his operations and provide and maintain any erosion control measures as required. The Contractor shall provide erosion control measures during construction and use methods that accord with applicable state standard specifications for road and bridge construction, including either (1) silt fence; (2) berm or temporary ditches; (3) sediment basin; (4) aggregate checks; and (5) channel lining. The Contractor will promptly repair eroded areas with Railroad rights of way and to repair any other damage to the property of the Railroad or its tenants at the Contractor's expense.

2. All maintenance and repair of damages due to the Contractor's operations shall be done at the Contractor's expense.

G. Storage of Materials and Equipment:

1. 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.

2. All grading or construction machinery that is left parked near the track unattended by a watchman shall be effectively immobilized so that it cannot be moved by unauthorized persons. The Contractor shall protect, defend, indemnify and save Railroad, and any associated, controlled or affiliated corporation, harmless from and against all losses, costs, expenses, claim or liability for loss or damage to property or the loss of life or personal injury, arising out of or incident to the Contractor's failure to immobilize grading or construction machinery.

H. Cleanup:

1. Upon completion of the work, the Contractor shall remove from within the limits of the Railroad rights of way, all machinery, equipment, surplus materials, falsework, rubbish or temporary buildings of the Contractor, and leave said rights of way in a neat condition satisfactory to the Railroad Engineer or his authorized representative.

VI. DAMAGES:

A. The Contractor shall assume all liability for any and all damages to his/her work, employees, equipment and materials caused by Railroad traffic.

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

VII. FLAGGING SERVICES:

A. When Required:

1. Flagging services will not be provided until the contractor's insurance has been reviewed & approved by the Railroad.

2. Under the terms of the agreement between the Department and the Railroad, the **Railroad has sole authority to determine the need for flagging** required to protect its operations. In general, the requirements of such services will be whenever the Contractor's personnel or equipment are likely to be, working on the Railroad's rights of way, or across, over, adjacent to, or under a track, or when such work has disturbed or is likely to disturb a railroad structure or the railroad roadbed or surface and alignment of any track to such extent that the movement of trains must be controlled by flagging. If any element (workers, equipment, tools, scaffolding, etc.) may exist or fall within 50 -feet of the edge of track, a flagman is necessary.

3. Normally, the Railroad will assign one flagman to a project; but in some cases, more than one may be necessary, such as yard limits where three-(3) flagmen may be required. However, if the Contractor works within distances that violate instructions given by the Railroad's authorized representative or performs work that has not been scheduled with the Railroad's authorized representative, a flagman or flagmen may be required until the project has been completed.

B. Scheduling and Notification:

1. Not later than the time that approval is initially requested to begin work on Railroad rights of way, Contractor shall furnish to the Railroad and the Department a schedule for all work required to complete the portion of the project within Railroad rights of way and arrange for a job site meeting between the Contractor, the Department, and the Railroad's authorized representative. Flagman or Flagmen may not be provided until the job site meeting has been conducted and the Contractor's work scheduled.

2. The Contractor will be required to give the Railroad representative **at least 10 working days of advance written notice** of intent to begin work within Railroad rights of way. If it is necessary for the Railroad to advertise a flagging job for bid, it **may take up to 30-days to obtain service**. Once begun, when work is suspended at any time for any reason, the Contractor will be required to give the Railroad representative **at least 72 hours in advance** before resuming work on Railroad rights of way. Such notice shall include sufficient details of the proposed work to enable the Railroad representative to determine if flagging will be required. If such notice is in writing, the Contractor shall furnish the Engineer a copy; if notice is given verbally it shall be confirmed in writing with copy to the Engineer. If flagging is required, no work shall be undertaken until the flagman, or flagmen is present at the job site. It **may take up to 30 days to obtain flagging initially** from the Railroad. When flagging begins the flagman is usually assigned by the Railroad to work at the project site on a continual basis until no longer needed and may be unable to be called for on a spot basis. If flagging becomes unnecessary and is suspended, it **may take up to 30 days to again obtain flagging services** from the Railroad. Due to labor agreements, it is necessary to give **5 working days notice before flagging service may be discontinued** and responsibility for payment stopped.

3. If, after the flagman is assigned to the project site, emergencies arise which require the flagman's presence elsewhere, and then the Contractor shall delay work on Railroad rights of way until such time as the flagman is again available. Any additional costs resulting from such delay shall be borne by the Contractor and not the Department or Railroad.

4. When demobilizing, the Contractor shall contact the flagman to avoid unnecessary flagging charges. This communication shall be documented.

C. Payment:

1. **The Cabinet will be responsible for paying the Railroad directly for any and all costs of flagging,** which may be required to accomplish the construction. **The Contractor shall adhere to the Special Note for Railroad Flagging, if applicable, and may be charged for flagging in excess of the allowable days, per said Special Note.**

2. The estimated cost of flagging is listed on the Summary Sheet. The charge to the Cabinet by the Railroad will be the actual cost based on the rate of pay for the Railroad's employees who are available for flagging service at the time the service is required.

3. Work by a flagman (M/W) in excess of 8 hours per day or 40 hours per week or on rest days, but not more than 16 hours a day will result in overtime pay at 1 ½ times the appropriate rate. Work by a flagman (M/W) in excess of 16 hours per day will result in overtime pay at 2 times the appropriate rate. Flagman (M/W) working in excess of 16 hours must receive a minimum of 5 hours of rest between shifts or their next shift of work is paid at the overtime rate of 2 times the appropriate rate. If work is performed on a holiday, the flagging rate is 2 ½ times the normal rate.

   Work by a flagman (T&E) in excess of 8 hours per day or 40 hours per week, but not more than 12 hours a day will result in overtime pay at 1 ½ times the appropriate rate. After a 12 hour work day the flagman (T&E) must be provided with 12 hours of rest. Flagman (T&E) who work six days consecutive days must receive two days off.

   Flagman's work day begins and ends at his reporting location.

4. Railroad work involved in preparing and handling bills will also be charged to the Contractor. Charges to the Department by the Railroad shall be in accordance with applicable provisions of Subchapter B, Part 140, Subpart I and Subchapter G, Part 646, Subpart B of the Federal-Aid Policy Guide issued by the Federal Highway Administration on December 9, 1991, including all current amendments. Flagging costs are subject to change. The above estimates of flagging cost are provided for information only and are not binding in any way.

D. Verification:

1. The Contractor and Project Engineer will review and sign the Railroad flagman's time sheet, attesting that the flagman was present during the time recorded. Flagman may be removed by Railroad if form is not signed. If flagman is removed, the Contractor will not be allowed to re-enter the Railroad rights of way until the issue is resolved. Any complaints concerning flagman or flagmen must be resolved in a timely manner. If need for flagman or flagmen is questioned, please contact the Railroad's Representative listed on the Project Summary Sheet. All verbal complaints must be confirmed in writing by the Contractor within 5 working days with copy to the Highway Engineer. All written correspondence should be addressed to the Railroad's Representative listed on the Project Summary Sheet.

2. The Railroad flagman assigned to the project will be responsible for notifying the Project Engineer upon arrival at the job site on the first day (or as soon thereafter as possible) that flagging services begin and on the last day that he performs such services for each separate period that services are provided. The Project Engineer will document such notification in the project records. When requested, the Project Engineer will also sign the flagman's diary showing daily time spent and activity at the project site.

VIII. HAUL ACROSS RAILROAD:

A. Where the plans show or imply that materials of any nature must be hauled across a Railroad, unless the plans clearly show that the State has included arrangements for such haul in its agreement with the Railroad, the Contractor will be required to make all necessary arrangements with the Railroad regarding means of transporting such materials across the Railroad. The Contractor will be required to bear all costs incidental, including flagging, to such crossings whether services are performed by his own forces or by Railroad personnel.

B. *No crossing may be established for use of the Contractor for transporting materials or equipment across the tracks of the Railroad Company unless a license agreement or right of entry is granted and executed for its installation, maintenance, necessary watching and flagging thereof and removal, all at the expense of the Contractor.* ***The approval process for an agreement normally takes 90-days.***

IX. WORK FOR THE BENEFIT OF THE CONTRACTOR:

A. All temporary or permanent changes in wire lines on the Railroad or other facilities which are considered necessary to the project are shown on the plans; included in the force account agreement between the State and the Railroad or will be covered by appropriate revisions to same which will be initiated and approved by the State and/or the Railroad.

B. Should the Contractor desire any changes in addition to the above, then he shall make separate arrangements with the Railroad for same to be accomplished at the Contractor's expense.

X. COOPERATION AND DELAYS:

A. It shall be the Contractor's responsibility to arrange a schedule with the Railroad for accomplishing stage construction involving work by the Railroad or tenants of the Railroad. In arranging his schedule he shall ascertain, from the Railroad, the lead time required for assembling crews and materials and shall make due allowance therefore.

B. Train schedules cannot be provided to the Contractor. It is the Contractor's responsibility to contact the Railroad in order to arrange "Track Time." This "Track Time" will be an agreed upon prearranged time period (duration) that the Railroad will, without undue burden, schedule no train traffic to facilitate the Contractor's work on or near Railroad right-of-way. This track time must be arranged during the submission review process.

C. No charge or claims of the Contractor against either the Department or the Railroad will be allowed for hindrance or delay on account of railroad traffic; any work done by the Railroad or other delay incident to or necessary for safe maintenance of Railroad traffic or for any delays due to compliance with these Special Notes.

D. 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.

E. The Railroad does not assume any responsibility for work performed by others in connection with the Project. No claims of the Contractor against the Railroad for any inconvenience, delay, or additional cost incurred by the Contractor on account of operations by others shall be filed.

XI. TRAINMAN'S WALKWAYS:

*A. Along the outer side of each exterior track of multiple operated track, and on each side of single operated track, an unobstructed continuous space suitable for trainman's use in walking along trains, extending to a line not less than 12~~10~~ feet from centerline of track, shall be maintained. Any temporary impediments to walkways and track drainage encroachments or obstructions allowed during work hours while Railroad's protective service is provided shall be removed before the close of each day. If there is any excavation near the walkway, a handrail, with **12'-0" minimum clearance from centerline of track,** shall be placed.*

XII. GUIDELINES FOR PERSONNEL ON RAILROAD RIGHTS OF WAY:

A. All persons shall wear hard hats and reflective vest. Appropriate eye and hearing protection must be used. Working in shorts is prohibited. Shirts must cover shoulders, back and abdomen. Working in tennis or jogging shoes, sandals, boots with high heels, cowboy and other slip on type boots is prohibited. High top (6-inch or more) safety-toe shoes with laces, oil-resistant soles, and a distinct separation between heel and sole are required.

*B. No one is allowed within **25' of the centerline of the track** without specific authorization from the flagman.*

C. All persons working near track when train is passing are to look out for dragging bands, chains and protruding or shifting cargo.

D. No one is allowed to cross tracks without specific authorization from the flagman.

*E. All work within **25' of track must stop when train is passing.***

F. No steel tape or chain will be allowed to cross or touch rails without permission.

XIII. GUIDELINES FOR EQUIPMENT ON RAILROAD RIGHTS OF WAY:

*A. No crane or boom equipment will be allowed to set up to work or park within **boom distance plus 15' of centerline of track** without specific permission from Railroad Engineer.*

B. No crane or boom equipment will be allowed to foul track or lift a load over the track without flag protection and track time.

C. All employees will stay with their machines when crane or boom equipment is pointed toward track.

D. All cranes and boom equipment under load will stop work while a train is passing (including pile driving).

E. Swinging loads must be secured to prevent movement while train is passing.

F. No loads will be suspended above a moving train.

*G. No equipment will be allowed within **50' of centerline of track** without specific authorization of the flagman.*

H. Trucks, tractors or any equipment will not touch ballast line without specific permission from railroad official and flagman.

*I. No equipment or load movement **within 50' or above a standing train or other equipment** without specific authorization of the flagman.*

*J. All operating equipment within **50' of track must halt operations when a train is passing**. All other operating equipment may be halted by the flagman if the flagman views the operation to be dangerous to the passing train.*

K. All equipment, loads and cables are prohibited from touching rails.

L. While clearing and grubbing, no vegetation will be removed from railroad embankment with heavy equipment without specific permission from the Railroad Engineer and flagman.

M. No equipment or materials will be parked or stored on Railroad's property unless specific permission is granted from the Railroad Engineer.

N. All unattended equipment that is left parked on Railroad property shall be effectively immobilized so that it cannot be moved by unauthorized persons.

O. All cranes and boom equipment will be turned away from track after each work day or whenever unattended by an operator.

XIV. INSURANCE:

A. In addition to any other forms of insurance or bonds required under the terms of the contract and specifications, the Contractor will be required to carry insurance of the following kinds:

1. Commercial General Liability coverage at their sole cost and expense with limits of not less than **$5,000,000** in combined single limits for bodily injury and/or property damage per occurrence, and such policies shall name the Railroad as an additional insured.

2. Statutory Worker's Compensation and Employers Liability Insurance with limits of not less than **$1,000,000**, which insurance must contain a waiver of subrogation against the Railroad and its affiliates.

3. Commercial automobile liability insurance with limits of not less than **$1,000,000** combined single limit for bodily injury and/or property damage per occurrence, and such policies shall name the Railroad as an additional insured.

4. Railroad Protective Liability (RPL) insurance with limits of not less than **$5,000,000** combined single limit for bodily injury and/or property damage per occurrence and an aggregate annual limit of **$10,000,000**, which insurance shall satisfy the following additional requirements:

   a. The Railroad Protective Insurance Policy must be on the ISO/RIMA Form of Railroad Protective Insurance – Insurance Services Office (ISO) Form CG 00 35.

   b. The Railroad must be the named insured on the Railroad Protective Insurance Policy

   c. Name and Address of the Contractor must be shown on the Declarations page.

   d. Description of operations must appear on the Declarations page and must match the Project description, including project or contract identification numbers.

   e. Terrorism Risk Insurance Act (TRIA) coverage must be included.

   f. Authorized endorsements must include:

      (i). Pollution Exclusion Amendment – CG 28 31, unless using form CG 00 35 version 96 and later.

   g. Authorized endorsements may include:

      (i). Broad form Nuclear Exclusion – IL 00 21
      (ii). 30-day Advance Notices of Non-renewal or cancellation
      (iii). Required State Cancellation Endorsement
      (iv). Quick Reference or Index – CL/IL 240

   h. Authorized endorsements may not include:

      (i). A Pollution Exclusion Endorsement except CG 28 31
      (ii). An Endorsement that excludes TRIA coverage
      (iii). An Endorsement that limits or excludes Professional Liability coverage
      (iv). A Non-Cumulation of Liability or Pyramiding of Limits Endorsement

(v). A Known Injury Endorsement
(vi). A Sole Agent Endorsement
(vii). A Punitive or Exemplary Damages Exclusion
(viii). A 'Commong Policy Conditions' Endorsement
(ix). Policies that contain any type of deductible
(x). Any endorsement that is not named in Section 4 (f) or (g) above that the Railroad deems unacceptable

5. All insurance companies must be A. M. Best rated A- and Class VII or better.

6. Such additional or different insurance as the Railroad may require.

B. Additional Terms:

1. Contractor must submit the original Railroad Protective Liability policy, Certificates of Insurance, and all notices and correspondence regarding the insurance policy to the contact listed on the Project Summary Sheet.

2. The Contractor may not begin work on the Project until it has received the Railroad's written approval or the required insurance.

C. Insurance policies shall follow the requirements of Subchapter G, Part 646, Subpart A of the Federal-Aid Policy Guide issued by the Federal Highway Administration on December 9, 1991, including all current amendments.

D. 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 or in behalf of the subcontractor to cover his operations. Endorsements to the Prime Contractor's policies specifically naming subcontractors and describing their operations will be acceptable for this purpose.

E. All insurance herein before specified shall be carried until all work required to be performed under the terms of the contract has been satisfactorily completed within the limits of the rights of way of the Railroad as evidenced by the formal acceptance by the Department. Insuring Companies may cancel insurance by permission of the Department and Railroad or on ***thirty (30) days written notice*** *to the Department and Railroad Insurance Contacts as listed on the Project Summary Sheet.*

XV. FAILURE TO COMPLY:

A. *These Special Notes are supplemental and amendatory to the current version of the Kentucky Department of Highways' Standard Specifications for Road and Bridge Construction and amendments thereof, and where in conflict therewith, these Special Notes shall govern.*

B. *In the event the Contractor violates or fails to comply with any of the requirements of these Special Notes:*

1. The Railroad Engineer may require that the Contractor vacate Railroad property.

2. The Engineer may withhold any and all monies due the Contractor on pay estimates.

3. Any such orders shall remain in effect until the Contractor has remedied the situation to the satisfaction of the Railroad Engineer and the Engineer.

XVI. PAYMENT FOR COST OF COMPLIANCE:

A. *No separate payment will be made for any extra cost incurred on account of compliance with these Special Notes. All such cost shall be included in prices bid for other items of the work as specified in the payment items.*

Kentucky Transportation Cabinet
Division of Right of Way & Utilities

TC 69-008
08/2010
Page 1 of 2

SUMMARY FOR KYTC PROJECTS THAT INVOLVE A RAILROAD

Date: 3/28/2017 *(enter using M/d/yyyy format)*

This project actively involves the below listed railroad company. This Project Summary provides an abbreviated listing of project specific railroad data. The detailed needs of the specified railroad company are included in the Special Notes for Protection of Railroad Interest in the proposal package. By submitting a bid, the contractor attests that they have dutifully considered and accepted the provisions as defined in both documents.

GENERAL ROAD PROJECT INFORMATION *(This section must be provided by KYTC)*

County: Kenton
Federal Number: DBP 0758 (086)
State Number: FD52 059 72003 02D
Route: I-75
Project Description: Covington - Cincinnati Ohio River Bridge and KY and OH Approaches
Item Number: 06-17.04 **Highway Milepost:** 191-192

GENERAL RAIL INFORMATION *(The below sections must be provided by Railroad Company)*

Rail Company Name: **CSX Transportation, Inc.**
AAR-DOT# (if applicable): 229 491N, 229 490G, 229 489M **Railroad Milepost:**CA-664.54, CA-664.52, CA-664.50
Train Count (6am to 6pm): 12 **Train Count (6pm to 6am):** 16 **Train Count (24 hr total):** 28
Maximum Train Speed: 10 mph
(This information is necessary to acquire the necessary insurances when working with Railroad Right of Way)

INSURANCE REQUIREMENTS

The named insured, description of the work and designation of the job site to be shown on the Policy are as follows:

(a) Named Insured: CSX Transportation, Inc.
(b) The project description should be as indicated in the General Road Project Information section.
(c) The designation of the jobsite is the route, Milepost, and AAR-DOT# listed above.

FLAGGING INFORMATION

Flagging Estimate:

KYTC will be responsible for paying all flagging costs to the RR.

Hourly Rate:

$1019.00 per day based on a 8 hour day effective as of the date of this document.

Work by a flagman in excess of 8 hours per day or 40 hours per week, but not more than 12 hours a day will result in overtime pay at 1 ½ times the appropriate rate. Work by a flagman in excess of 12 hours per day will result in overtime pay at 2 times the appropriate rate. If work is performed on a holiday, the flagging rate is 2 ½ times the normal rate.

Forecasted Rate Increases:

Rates will increase to $0.00 per hour based on a 0 hour day effective _____ *(enter using M/d/yyyy format)*.

RAILROAD CONTACTS

(*to be provided by Railroad Company)*

General Railroad Contact:

Troy Creasy
CSX Transportation, Inc.
Public Projects Group
1610 Forest Ave., Suite 120
Richmond, VA 23229
(Phone) 804-226-7718
(Email) Troy_Creasy@csx.com

Regional Representative (Roadmaster):

Monte Stokes
CSX Transportation, Inc.
3601 Geringer Street
Cincinnati, OH

_____
(Phone) 513-369-5524
(Email) monte_stokes@csx.com

Insurance contact:

_____
CSX Corporation
Insurance Department

_____

_____
(Phone) _____
(Email) insurancedocuments@csx.com

Railroad Designer Contact:

Contractor or In-House Employee? Consultant

Larry Shaw
Benesch
201 N. Illinois St.
16th Floor South Tower
Indianapolis, IN 46204
(Phone) 317-610-3241
(Email) LShaw@Benesch.com

Railroad Construction Contact:

Contractor or In-House Employee? Consultant

Wayne Bolen
Benesch
201 E Fifth Street
Suite 1900
Cincinnati, OH 45202
(Phone) 859-250-5483
(Email) WBolen@Benesch.com

KENTUCKY TRANSPORTATION CABINET CONTACTS

(*to be provided by KYTC)*

KYTC Railroad Coordinator:

Allen Rust, PE
Div. of Right of Way & Utilities
Kentucky Transportation Cabinet
200 Mero Street, 5th Floor East
Frankfort, Kentucky 40622
(Phone) 502-782-4950
(Email) allen.rust@ky.gov

KYTC Construction Procurement Director:

Rachel Mills, Director
Div. of Construction Procurement
Kentucky Transportation Cabinet
200 Mero Street, 3rd Floor West
Frankfort, Kentucky 40622
(Phone) 502-782-5152
(Email) Rachel.Mills@ky.gov

KYTC Construction Director:

Ryan Griffith, Director
Div. of Construction Procurement
Kentucky Transportation Cabinet
200 Mero Street, 3rd Floor West
Frankfort, Kentucky 40622
(Phone) 502-782-5127
(Email) ryan.griffith@ky.gov

The project specific information provided herein is valid as of the date indicated. However, the specific information may be subject to change due to the normal business operations of all parties. The terms and conditions defined here, and in the bid proposal in its entirety, are inclusive and constant.

CSX TRANSPORTATION

CONSTRUCTION SUBMISSION CRITERIA

CSXT Design and Construction
Public Projects Group
Jacksonville, FL
Date Issued: November 1, 2013

TABLE OF CONTENTS

INTRODUCTION

The intent of this document is to guide outside agencies and their Contractors when performing work on, over, or with potential to impact CSXT property (ROW). Work plans shall be submitted for review to the designated CSXT Engineering Representative for all work which presents the potential to affect CSXT property or operations; this document shall serve as a guide in preparing these work plans. All work shall be performed in a manner that does not adversely impact CSXT operations or safety; as such, the requirements of this document shall be strictly adhered to, in addition to all other applicable standards associated with the construction. Applicable standards include, but are not limited to, CSXT Standards and Special Provisions, CSXT Insurance Requirements, CSXT Pipeline Occupancy Criteria, as well as the governing local, county, state and federal requirements. It shall be noted that this document and all other CSXT standards are subject to change without notice, and future revisions will be made available at the CSXT website: www.csx.com.

I. DEFINITIONS

1. **Agency –** The project sponsor (i.e. State DOT, Local Agencies, Private Developer, etc.)
2. **AREMA –** American Railway Engineering and Maintenance-of-Way Association – the North American railroad industry standards group. The use of this term shall be in specific reference to the AREMA Manual for Railway Engineering.
3. **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, specifications, and supporting calculations shall be signed/sealed by a Professional Engineer as defined below.
4. **Controlled Demolition –** Removal of an existing structure or subcomponents in a manner that positively prevents any debris or material from falling, impacting, or otherwise affecting CSXT employees, equipment or property. Provisions shall be made to ensure that there is no impairment of railroad operations or CSXT's ability to access its property at all times.
5. **Contractor –** The Agency's representative retained to perform the project work.
6. **Engineer –** CSXT Engineering Representative or a GEC authorized to act on the behalf of CSXT.
7. **Flagman –** A qualified CSXT employee with the sole responsibility to direct or restrict movement of trains, at or through a specific location, to provide protection for workers.
8. **GEC –** General Engineering Consultant who has been authorized to act on the behalf of CSXT.
9. **Horizontal Clearance –** Distance measured perpendicularly from centerline of any track to the nearest obstruction at any elevation between TOR and the maximum vertical clearance of the track.
10. **Professional Engineer –** An engineer who is licensed in State or Commonwealth in which the project is to occur. All plans, specifications, and supporting calculations shall be prepared by the Licensed Professional Engineer and shall bear his/her seal and signature.
11. **Potential to Foul –** Work having the possibility of impacting CSXT property or operations; defined as one or more of the following:
    a. Any activity where access onto CSXT property is required.
    b. Any activity where work is being performed on CSXT ROW.
    c. Any excavation work adjacent to CSXT tracks or facilities, within the Theoretical Railroad Live Load Influence Zone, or where the active earth pressure zone extends within the CSXT property limits.

d. The use of any equipment where, if tipped and laid flat in any direction (360 degrees) about its center pin, can encroach within twenty five feet (25'-0") of the nearest track centerline. This is based upon the proposed location of the equipment during use, and may be a function of the equipment boom length. Note that hoisting equipment with the potential to foul must satisfy the 150% factor of safety requirement for lifting capacities.

e. Any work where the scatter of debris, or other materials has the potential to encroach within twenty five feet (25'-0") of the nearest track centerline.

f. Any work where significant vibration forces may be induced upon the track structure or existing structures located under, over, or adjacent to the track structure.

g. Any other work which poses the potential to disrupt rail operations, threaten the safety of railroad employees, or otherwise negatively impact railroad property, as determined by CSXT.

12. **ROW –** Right of Way; Refers to CSXT Right-of-Way as well as all CSXT property and facilities. This includes all aerial space within the property limits, and any underground facilities.

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

14. **Theoretical Railroad Live Load Influence Zone –** A 1½ horizontal to 1 vertical theoretical slope line starting 18 inches (1'-6") below top of tie elevation and twelve feet (12'-0") from the centerline of the nearest track.

15. **TOR –** Top of Rail. This is the base point for clearance measurements. It refers to the crown (top) of the steel rail; the point where train wheels bear on the steel rails.

16. **Track Structure –** All load bearing elements which support the train. This includes, but is not limited to, the rail, ties, appurtenances, ballast, sub-ballast, embankment, retaining walls, and bridge structures.

17. **Vertical Clearance –** Distance measured from TOR to the lowest obstruction within six feet (6'-0") of the track centerline, in either direction.

II. GENERAL SUBMISSION REQUIREMENTS

A. A construction work plan is required to be submitted by the Agency or its Contractor, for review and acceptance, prior to accessing or performing any work with Potential to Foul.

B. The Agency or its representative shall submit six (6) sets of plans, specifications, supporting calculations, and detailed means and methods procedures for the specific proposed work activity.

C. Construction submissions shall include all information relevant to the work activity, and shall clearly and concisely explain the nature of the work, how it is being performed, and what measures are being taken to ensure that railroad property and operations are continuously maintained.

D. All construction plans shall include a map of the work site, depicting the CSXT tracks, the CSXT right of way, proposed means of access, proposed locations for equipment and material staging (dimensioned from nearest track centerline), as well as all other relevant project information. An elevation drawing may also be necessary in order to depict clearances or other components of the work.

E. Please note that CSXT will not provide pricing to individual contractors involved in bidding projects. Bidding contractors shall request information from the agency and not CSXT.

F. The Contractor shall install a geotextile fabric ballast protection system to prevent construction or demolition debris and fines from fouling ballast. The geotextile ballast protection system shall be installed and maintained by the Contractor to the satisfaction of the Engineer.

G. The Engineer shall be kept aware of the construction schedule. The Contractor shall provide timely communication to the Engineer when scheduling the work such that the Engineer may be present during the work. The Contractor's schedule shall not dictate the work plan review schedule, and flagging shall not be scheduled prior to receipt of an accepted work plan.

H. At any time during construction activities, the Engineer may require revisions to the previously approved procedures to address weather, site conditions or other circumstances that 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.

I. Blasting will not be permitted to demolish a structure over or within CSXT's right-of-way. When blasting off of CSXT property but with Potential to Foul, vibration monitoring, track settlement surveying, and/or other protective measures may be required as determined by the Engineer.

J. Blasting is not permitted adjacent to CSXT right-of-way without written approval from the Chief Engineer, CSXT.

K. 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 submit a work plan satisfying the following requirements:

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 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 that 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. HOISTING OPERATIONS

A. All proposed hoisting operations with Potential to Foul shall be submitted in accordance with the following:

1. A plan view drawing shall depict the work site, the CSXT track(s), the proposed location(s) of the lifting equipment, as well as the proposed locations for picking, any intermediate staging, and setting the load(s). All locations shall be dimensioned from centerline of the nearest track. Crane locations shall also be dimensioned from a stationary point at the work site for field confirmation.
2. Computations showing the anticipated weight of all picks. Computations shall be made based upon the field-verified plans of the existing structure. Pick weights shall account for the weight of concrete rubble or other materials attached to the component being removed; this includes the weight of subsequent rigging devices/components. Rigging components shall be sized for the subsequent pick weight.
3. All lifting equipment, rigging devices, and other load bearing elements shall have a rated (safe lifting) capacity that is greater than or equal to 150% of the load it is carrying, as a factor of safety. Supporting calculations shall be furnished to verify the minimum capacity requirement is maintained for the duration of the hoisting operation.
4. Dynamic hoisting operations are prohibited when carrying a load with the Potential to Foul. Cranes or other lifting equipment shall remain stationary during lifting. (i.e. no moving picks).
5. For lifting equipment, the manufacturer's capacity charts, including crane, counterweight, maximum boom angle, and boom nomenclature is to be submitted.
6. A schematic rigging diagram must be provided to clearly call out each rigging component from crane hook to the material being hoisted. Copies of catalog or information sheets shall be provided to verify rigging weights and capacities.
7. For built-up rigging devices, the contractor shall submit the following:
    i. Details of the device, calling out material types, sizes, connections and other properties.
    ii. Load test certification documents and/or design computations bearing the seal and signature of a Professional Engineer. Load test shall be performed in the configuration of its intended use as part of the subject demolition procedure.
    iii. Copies of the latest inspection reports of the rigging device. The device shall be inspected within one (1) calendar year of the proposed date for use.
8. A detail shall be provided showing the crane outrigger setup, including dimensions from adjacent slopes or facilities. The detail shall indicate requirements for bearing surface preparation, including material requirements and compaction efforts. As a minimum, outriggers and/or tracks shall bear on mats, positioned on level material with adequate bearing capacity.
9. A complete written narrative that describes the sequence of events, indicating the order of lifts and any repositioning or re-hitching of the crane(s).

IV. DEMOLITION PROCEDURE

A. The Agency or its Contractor shall submit a detailed procedure for a controlled demolition of any structure on, over, or adjacent to the ROW. The controlled demolition procedure must be approved by the Engineer prior to beginning work on the project.

B. Existing Condition of structure being demolished:

1. The Contractor shall submit as-built plans for the structure(s) being demolished.
2. If as-built plans are unavailable, the Contractor shall perform an investigation of the structure, including any foundations, substructures, etc. The field measurements are to be made under the supervision of the Professional Engineer submitting the demolition procedure. Findings shall be submitted as part of the demolition means and methods submittal for review by the Engineer.
3. Any proposed method for temporary stabilization of the structure during the demolition shall be based on the existing plans or investigative findings, and submitted as part of the demolition means and methods for review by the Engineer.

C. Demolition work plans shall include a schematic plan depicting the proposed locations of the following, at various stages of the demolition:

1. All cranes and equipment, calling out the operating radii.
2. All proposed access and staging locations with all dimensions referenced from the center line of the nearest track.
3. Proposed locations for stockpiling material or locations for truck loading.
4. 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.
5. Note that no crane or equipment may be set on the CSXT rails or track structure and no material may be dropped on CSXT property.

D. Demolition submittal shall also include the following information:

1. All hoisting details, as dictated by Section III of this document.
2. 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.
3. The names and experience of the key Contractor personnel involved in the operation shall be included in the Contractor's means and methods submission.
4. Design and supporting calculations shall be prepared, signed, and sealed 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 in the proximity of temporary bents or shoring towers, when located within twelve feet (12'-0") from the centerline of the track. The guardrail will be installed by CSXT forces, at the expense of the Agency or its contractor.

E. Girders or girder systems shall be stable at all times during demolition. Temporary bracing shall be provided at the piers, abutments, or other locations to resist overturning and/or buckling of the member(s). The agency shall submit a design and details of the proposed temporary bracing system, for review by the Engineer. Lateral wind forces for the temporary conditions shall be considered in accordance with AREMA, Chapter 8, Section 28.6.2. The minimum lateral wind pressure shall be fifteen pounds per square foot (15 psf).

F. Existing, obsolete, bridge piers shall be removed to a minimum of three feet (3'-0") below the finished grade, final ditch line invert, or as directed by the Engineer.

G. A minimum quantity of twenty five (25) tons of CSXT approved granite track ballast may be required to be furnished and stockpiled on site by the Contractor, or as directed by the Engineer.

H. The use of acetylene gas is prohibited for use on or over CSXT property. Torch cutting shall be performed utilizing other materials such as propane.

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

J. Demolition Debris Shield

1. On-track or ground-level debris shields (such as crane mats) are prohibited for use by CSXT.
2. Demolition Debris Shield shall be installed prior to the demolition of the bridge deck or other relevant portions of the structure. The demolition debris shield shall be erected from the underside of the bridge over the track area to catch all falling debris. The debris shield shall not be the primary means of debris containment.
    i. The demolition debris shield design and supporting calculations, all signed/sealed by a Professional Engineer, shall be submitted for review and acceptance.
    ii. The demolition debris shield shall have a minimum design load of 50 pounds per square foot (50 psf) plus the weight of the equipment, debris, personnel, and all other loads.
    iii. The Contractor shall verify the maximum particle size and quantity of the demolition debris generated during the procedure does not exceed the shield design loads. Shield design shall account for loads induced by particle impact; however the demolition procedure shall be such that impact forces are minimized. The debris shield shall not be the primary means of debris containment.
    iv. The Contractor shall include installation/removal means and methods for the demolition debris shield as part of the proposed Controlled Demolition procedure submission.
    v. The demolition debris shield shall provide twenty three feet (23'-0") minimum vertical clearance, or maintain the existing vertical clearance if the existing clearance is less than twenty three feet (23'-0").
    vi. Horizontal clearance to the centerline of the track should not be reduced unless approved by the Engineer.
    vii. 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.

K. Vertical Demolition Debris Shield

1. This type of shield may be required for substructure removals in close proximity to CSXT track and other facilities, as determined by the Engineer.
2. The Agency or its Contractor shall submit detailed plans with detailed calculations, prepared, signed, and sealed by a Professional Engineer, of the protection shield.

V. ERECTION PROCEDURE

A. The Agency or its Contractor shall submit a detailed procedure for erection of a structure with Potential to Foul. The erection procedure must be approved by the Engineer prior to beginning work on the project.

B. Erection work plans shall include a schematic plan depicting the following, at all stages of the construction:

1. All proposed locations of all cranes and equipment, calling out the operating radii.
2. All proposed access and staging locations with all dimensions referenced from the center line of the nearest track.
3. All proposed locations for stockpiling material or locations for truck loading.
4. 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.

C. No crane or equipment may be set on the CSXT rails or track structure and no material may be dropped on CSXT property.

D. For erection of a structure over the tracks, the following information shall be submitted for review and acceptance by the Engineer, at least thirty (30) days prior to erection:

1. As-built beam seat elevations – field surveyed upon completion of pier/abutment construction.
2. Current Top of Rail (TOR) elevations – field measured at the time of as-built elevation collection.
3. Computations verifying the anticipated minimum vertical clearance in the final condition which accounts for all deflection and camber, based upon the current TOR and as-built beam seat elevations. The anticipated minimum vertical clearance shall be greater than or equal to that which is indicated by the approved plans. Vertical clearance (see definitions) is measured from TOR to the lowest point on the overhead structure at any point within six feet (6'-0") from centerline of the track. Calculations shall be signed and sealed by a Professional Engineer.

E. Girders or girder systems shall be stable at all times during erection. No crane may unhook prior to stabilizing the beam or girder.

1. Lateral wind forces for the temporary conditions shall be considered in accordance with AREMA, Chapter 8, Section 28.6.2. The minimum lateral wind pressure shall be fifteen pounds per square foot (15 psf).
2. Temporary bracing shall be provided at the piers, abutments, or other locations to resist overturning and/or buckling of the member(s). The agency shall submit a design and details of the proposed temporary bracing system, for review by the Engineer.
3. Temporary bracing shall not be removed until sufficient lateral bracing or diaphragm members have been installed to establish a stable condition. Supporting calculations, furnished by the Professional Engineer, shall confirm the stable condition.

F. Erection procedure submissions shall also include the following information:

1. All hoisting details, as dictated by Section III of this document.
2. 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. performing aerial splices, installing temporary bracing, installation of diaphragm members, etc.) shall be furnished so that the potential impact(s) to CSXT operations may be assessed and eliminated or minimized.
3. The names and experience of the key Contractor personnel involved in the operation shall be included in the Contractor's means and methods submission.

4. A guardrail will be required to be installed in a track in the proximity of temporary bents or shoring towers, when located within twelve feet (12'-0") from the centerline of the track. The guardrail will be installed by CSXT forces, at the expense of the Agency or its Contractor.
5. 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.

VI. TEMPORARY EXCAVATION AND SHORING

A. The Agency or its Contractor shall submit a detailed design and procedure for the installation of a sheeting/shoring system adjacent to the tracks. Shoring protection shall be provided when excavating with Potential to Foul, or as otherwise determined by CSXT. Shoring shall be provided in accordance with the AREMA, except as noted below.

B. Shoring may not be required if all of the following conditions are satisfied:

1. The excavation does not encroach within the Theoretical Live Load Influence Zone. Please refer to Figure 1.
2. The track structure is situated on level ground, or in a cut section, and on stable soil.
3. The excavation does not adversely impact the stability of a CSXT facility (i.e. signal bungalow, drainage facility, under grade bridge, building, etc), or the stability of any structure on, over, or adjacent to CSXT property with potential to foul.
4. Shoring is not required by any governing federal, state, local or other construction code.

C. Shoring is required when excavating the toe of an embankment. Excavation of any embankment which supports an active CSXT track structure without shoring will not be permitted.

D. Trench boxes are not an acceptable means of shoring. Trench boxes are prohibited for use on CSXT property or within the Theoretical Railroad Live Load Influence Zone.

E. Shoring shall be a cofferdam-type, which completely encloses the excavation. However, where justified by site or work conditions, partial cofferdams with open sides away from the track may be permissible, as determined by the Engineer.

F. Cofferdams shall be constructed using interlocking steel sheet piles, or when approved by the Engineer, steel soldier piles with timber lagging. Wales and struts shall be included when dictated by the design.

G. The use of tiebacks can be permissible for temporary shoring systems, when conditions warrant. Tiebacks shall have a minimum clear cover of 6'-0", measured from the bottom of the rail. Upon completion of the work, tiebacks shall be grouted, cut off, and remain in place.

H. All shoring systems on, or adjacent to CSXT right-of-way, shall be equipped with railings or other fall protection, compliant with the governing federal, state or local requirements. Area around pits shall be graded to eliminate all potential tripping hazards.

I. Interlocking steel sheet piles shall be used for shoring systems qualifying one or more of the following conditions:

1. Within 18'-0" of the nearest track centerline
2. Within the live load influence zone
3. Within slopes supporting the track structure
4. As otherwise deemed necessary by the Engineer.

J. Sheet piles qualifying for one or more of the requirements listed in Section VI.I (above) of this document shall not be removed. Sheet piles shall be left in place and cut off a minimum of 3'-0" below the finished grade, the ditch line invert, or as otherwise directed by the Engineer. The ground shall be backfilled and compacted immediately after sheet pile is cut off.

K. The following design considerations shall be considered when preparing the shoring design package:

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, eight feet six inches (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 Chapter 7, 8, and 15.3.
3. A minimum horizontal clearance of ten feet (10'-0") from centerline of the track to face of nearest point of shoring shall be maintained, provided a twelve feet (12'-0") roadbed is maintained with a temporary walkway and handrail system.
4. For temporary shoring systems with Potential to Foul, piles shall be plumb under full dead load. Maximum deflection at the top of wall, under full live load, shall be as follows:
    i. ½ inch for walls within twelve feet (12’-0”) of track centerline (Measured from centerline of the nearest track to the nearest point of the supporting structure).
    ii. 1 inch for walls located greater than twelve feet (12’-0”) from track centerline

L. Shoring work plans shall be submitted in accordance with Section II of this document, as well as the following additional requirements:

1. The work plan shall include detailed drawings of the shoring systems calling out the sizes of all structural members, details of all connections. Both plan and elevation drawings shall be provided, calling out dimensions from the face of shoring relative to the nearest track centerline. The elevation drawing shall also show the height of shoring, and track elevation in relation to bottom of excavation.
2. Full design calculations for the shoring system shall be furnished.
3. A procedure for cutting off the sheet pile, backfilling and restoring the embankment.

VII. TRACK MONITORING

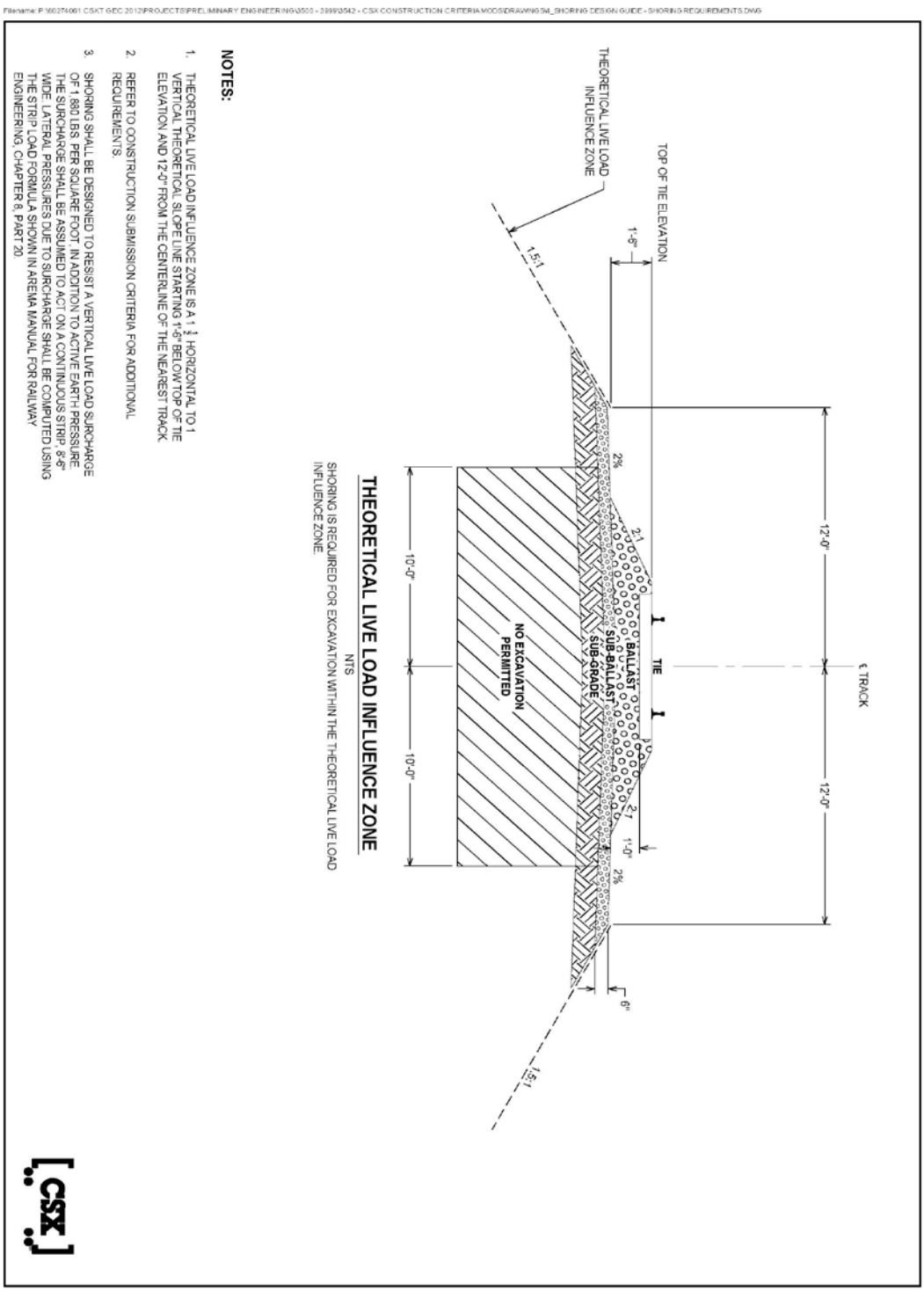
A. When work being performed has the potential to disrupt the track structure, a work plan must be submitted detailing a track monitoring program which will serve to monitor and detect both horizontal and vertical movement of the CSXT track and roadbed.

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.

Figure 1: Theoretical Live Load Influence Zone



Cincinnati, Hamilton County, OH
KYTC Project No. FD52 059 72003 02D
CSXT Milepost: CA-664.54, CA-664.52, CA-664.50
CSXT OP No.: KY0362

EXHIBIT D

CONTRACTOR'S ACCEPTANCE

To and for the benefit of the ***Company***, ("***Company***") and to induce the ***Company*** to permit Contractor on or about ***Company's*** property for the purposes of performing work in accordance with the Agreement dated _____, 20__, between the Commonwealth of Kentucky Transportation Cabinet, Department of Highways and the ***Company***, Contractor hereby agrees to abide by and perform all applicable terms of the Agreement, including, particularly Exhibits B and C as included herein.

Contractor: _____

By: _____

Name: _____

Title: _____

Date: _____

SPECIAL NOTE FOR PRE-BID CONFERENCE DISTRICT 6 ~ KENTON COUNTY
CID Number 172980

The Department will conduct a Mandatory Pre-Bid Conference of the subject project on **Tuesday, April 18, 2017 at 10:00 AM EST at;**

KYTC District 6 Office
421 Buttermilk Pike
Covington, KY 41017
Phone: (859) 341-2700

Any company that is interested in bidding on the subject project or being part of a joint venture shall be represented at the conference by at least **one person of sufficient authority to bind the company**. No individual can represent more than one company. At the conference, a roster shall be took of the representatives present. **Only companies represented at the conference and during the field review will be eligible to have their bids opened at the date of letting.**

The purpose of the conference is to familiarize all prospective bidders with the contract requirements within the scope of the contract.

Department of Highways officials and project managers present at the conference will answer questions concerning the projects.

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2012* and *Standard Drawings, Edition of 2016.*

SUPPLEMENTAL SPECIFICATIONS

The contractor shall use the Supplemental Specifications that are effective at the time of letting. The Supplemental Specifications can be found at the following link:

http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx

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SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

This Special Note will apply when indicated on the plans or in the proposal.

1.0 DESCRIPTION. Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

2.0 MATERIALS.

2.1 General. Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

2.2 Sign and Controls. All signs must:

1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
3) Provide a controller consisting of:
   a) Keyboard or keypad.
   b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
   c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
   d) Logic circuitry to control the sequence of messages and flash rate.
4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
11) Provide a photocell control to provide automatic dimming.

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12) Allow an on-off flashing sequence at an adjustable rate.
13) Provide a sight to aim the message.
14) Provide a LED display color of approximately 590 nm amber.
15) Provide a controller that is password protected.
16) Provide a security device that prevents unauthorized individuals from accessing the controller.
17) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

/KEEP/RIGHT/⇒⇒⇒/
/KEEP/LEFT/⇐⇐⇐/
/LOOSE/GRAVEL/AHEAD/
/RD WORK/NEXT/**MILES/
/TWO WAY/TRAFFIC/AHEAD/
/PAINT/CREW/AHEAD/
/REDUCE/SPEED/**MPH/
/BRIDGE/WORK/***0 FT/
/MAX/SPEED/**MPH/
/SURVEY/PARTY/AHEAD/
/MIN/SPEED/**MPH/
/ICY/BRIDGE/AHEAD/ /ONE LANE/BRIDGE/AHEAD/
/ROUGH/ROAD/AHEAD/
/MERGING/TRAFFIC/AHEAD/
/NEXT/***/MILES/
/HEAVY/TRAFFIC/AHEAD/
/SPEED/LIMIT/**MPH/
/BUMP/AHEAD/
/TWO/WAY/TRAFFIC/

*Insert numerals as directed by the Engineer.
Add other messages during the project when required by the Engineer.

2.3 Power.

1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.

3.0 CONSTRUCTION. Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

Maintain the sign in proper working order, including repair of any damage done by others, until completion of the project. When the sign becomes inoperative, immediately repair or replace the sign. Repetitive problems with the same unit will be cause for rejection and replacement.

Use only project related messages and messages directed by the Engineer, unnecessary messages lessen the impact of the sign. Ensure the message is displayed in either one or 2 phases with each phase having no more than 3 lines of text. When no message is needed, but it is necessary to know if the sign is operable, flash only a pixel.

When the sign is not needed, move it outside the clear zone or where the Engineer directs. Variable Message Signs are the property of the Contractor and shall be removed from the project when no longer needed. The Department will not assume ownership of these signs.

4.0 MEASUREMENT. The final quantity of Variable Message Sign will be

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the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

5.0 PAYMENT. The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and maintain or replace the variable message signs. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Pay Unit
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

FHWA-1273 -- Revised May 1, 2012

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

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

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

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

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

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

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

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

II. NONDISCRIMINATION

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

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

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

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

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

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

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

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

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

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

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

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

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

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

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

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

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

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

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

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

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

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

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

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

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

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

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

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

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

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

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

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

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

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

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

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

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

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

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

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

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

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

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

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

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

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

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

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

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

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

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

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

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

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

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

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

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

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

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

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

VII. SAFETY: ACCIDENT PREVENTION

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

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

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

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

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

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

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

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

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

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

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

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

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

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

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

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

1**. Instructions for Certification – First Tier Participants:**

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

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

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

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

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

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

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

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

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

* * * * *

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

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

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

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

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

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

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

2. **Instructions for Certification - Lower Tier Participants:**

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

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

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

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

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

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

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

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

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

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

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

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

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

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

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

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

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

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

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

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

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

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

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

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

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

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

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

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

EMPLOYMENT REQUIREMENTS
RELATING TO
NONDISCRIMINATION OF EMPLOYEES
(APPLICABLE TO FEDERAL-AID SYSTEM CONTRACTS)

AN ACT OF THE KENTUCKY GENERAL ASSEMBLY TO PREVENT DISCRIMINATION IN EMPLOYMENT

KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administrating agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

a) The date of leaving office or termination of employment; or
b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: January 27, 2017

General Decision Number: OH170002 03/10/2017 OH2

Superseded General Decision Number: OH20160002

State: Ohio

Construction Types: Heavy and Highway

Counties: Ohio Statewide.

Heavy and Highway Construction Projects

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	01/13/2017
2	02/03/2017
3	02/17/2017
4	03/10/2017

BROH0001-001 06/01/2016

DEFIANCE, FULTON (Excluding Fulton, Amboy & Swan Creek Townships), HENRY (Excluding Monroe, Bartlow, Liberty, Washington, Richfield, Marion, Damascus & Townships & that part of Harrison Township outside corporate limits of city of Napoleon), PAULDING, PUTNAM and WILLIAMS COUNTIES

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

BROH0001-004 06/01/2016

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 28.55	13.23

BROH0003-002 06/01/2016

FULTON (Townships of Amboy, Swan Creek & Fulton), HENRY (Townships of Washington, Damascus, Richfield, Bartlow, Liberty, Harrison, Monroe, & Marion), LUCAS and WOOD (Townships of Perrysburg, Ross, Lake, Troy, Freedom, Montgomery, Webster, Center, Portage, Middleton, Plain, Liberty, Henry, Washington,

Weston, Milton, Jackson & Grand Rapids) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

BROH0005-003 06/01/2016

CUYAHOGA, LORAIN & MEDINA (Hinckley, Granger, Brunswick, Liverpool, Montville, York, Homer, Harrisville, Chatham, Litchfield & Spencer Townships and the city of Medina)

	Rates	Fringes
BRICKLAYER		
BRICKLAYERS; CAULKERS; CLEANERS; POINTERS; & STONEMASONS	$ 28.55	13.23
SANDBLASTERS	$ 34.45	14.18
SEWER BRICKLAYERS & STACK BUILDERS	$ 34.70	14.18
SWING SCAFFOLDS	$ 34.95	14.18

BROH0006-005 06/01/2016

CARROLL, COLUMBIANA (Knox, Butler, West & Hanover Townships), STARK & TUSCARAWAS

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

BROH0007-002 06/01/2016

LAWRENCE

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

BROH0007-005 06/01/2016

PORTAGE & SUMMIT

	Rates	Fringes
BRICKLAYER	$ 28.55	13.23

BROH0007-010 06/01/2016

PORTAGE & SUMMIT

	Rates	Fringes
MASON - STONE	$ 28.55	13.23

BROH0008-001 06/01/2016

COLUMBIANA (Salem, Perry, Fairfield, Center, Elk Run, Middleton, & Unity Townships and the city of New Waterford), MAHONING & TRUMBULL

	Rates	Fringes
BRICKLAYER	$ 28.55	13.23

BROH0009-002 06/01/2016

BELMONT & MONROE COUNTIES and the Townships of Warren & Mt. Pleasant and the Village of Dillonvale in JEFFERSON COUNTY

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23
Refractory	$ 31.45	19.01

BROH0010-002 06/01/2016

COLUMBIANA (St. Clair, Madison, Wayne, Franklin, Washington, Yellow Creek & Liverpool Townships) & JEFFERSON (Brush Creek & Saline Townships)

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

BROH0014-002 06/01/2016

HARRISON & JEFFERSON (Except Mt. Pleasant, Warren, Brush Creek, Saline & Salineville Townships & the Village of Dillonvale)

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

BROH0016-002 06/01/2016

ASHTABULA, GEAUGA, and LAKE COUNTIES

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

BROH0018-002 06/01/2016

BROWN, BUTLER, CLERMONT, HAMILTON, PREBLE (Gasper, Dixon, Israel, Lanier, Somers & Gratis Townships) & WARREN COUNTIES:

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

BROH0022-004 06/01/2016

CHAMPAIGN, CLARK, CLINTON, DARKE, GREENE, HIGHLAND, LOGAN, MIAMI, MONTGOMERY, PREBLE (Jackson, Monroe, Harrison, Twin, Jefferson & Washington Townships) and SHELBY COUNTIES

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

BROH0032-001 06/01/2016

GALLIA & MEIGS

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

BROH0035-002 06/01/2016

ALLEN, AUGLAIZE, MERCER and VAN WERT COUNTIES

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

BROH0039-002 06/01/2016

ADAMS & SCIOTO

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

BROH0040-003 06/01/2016

ASHLAND, CRAWFORD, HARDIN, HOLMES, MARION, MORROW, RICHLAND, WAYNE and WYANDOT (Except Crawford, Ridge, Richland & Tymochtee Townships) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason	$ 28.55	13.23

FOOTNOTE: Layout Man and Sawman rate: $1.00 per hour above journeyman rate.
Free standing stack work ground level to top of stack; Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: $1.50 per hour above journeyman rate.
"Hot" work: $2.50 above journeyman rate.

BROH0044-002 06/01/2016

	Rates	Fringes
Bricklayer, Stonemason		

COSHOCTON, FAIRFIELD, GUERNSEY, HOCKING, KNOX, KICKING, MORGAN, MUSKINGUM, NOBLE (Beaver, Buffalo, Seneca & Wayne Townships) & PERRY COUNTIES:.....$ 28.55 13.23

BROH0045-002 06/01/2016

FAYETTE, JACKSON, PIKE, ROSS and VINTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	$ 28.55	13.23

BROH0046-002 06/01/2016

ERIE, HANCOCK, HURON, OTTAWA, SANDUSKY, SENECA, WOOD (Perry & Bloom Townships) and WYANDOT (Tymochtee, Crawford, Ridge & Richland Townships) COUNTIES & the Islands of Lake Erie north of Sandusky

	Rates	Fringes
Bricklayer, Stonemason.....	$ 28.55	13.23

FOOTNOTE: Layout Man and Sawman rate: $1.00 per hour above journeyman rate.
Free standing stack work ground level to top of stack; Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: $1.50 per hour above journeyman rate.
"Hot" work: $2.50 above journeyman rate.

BROH0052-001 06/01/2016

ATHENS COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	$ 28.55	13.23

BROH0052-003 06/01/2016

NOBLE (Brookfield, Noble, Center, Sharon, Olive, Enoch, Stock, Jackson, Jefferson & Elk Townships) and WASHINGTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	$ 28.55	13.23

BROH0055-003 06/01/2016

DELAWARE, FRANKLIN, MADISON, PICKAWAY and UNION COUNTIES

	Rates	Fringes

Bricklayer, Stonemason.....$ 28.55 13.23

CARP0003-004 05/01/2014

MAHONING & TRUMBULL

	Rates	Fringes
CARPENTER.....	$ 25.61	15.10

CARP0069-003 05/01/2014

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
CARPENTER.....	$ 25.50	13.67

CARP0069-006 05/01/2014

COSHOCTON, HOLMES, KNOX & MORROW

	Rates	Fringes
CARPENTER.....	$ 23.66	13.05

CARP0171-002 05/01/2014

BELMONT, COLUMBIANA, HARRISON, JEFFERSON & MONROE

	Rates	Fringes
CARPENTER.....	$ 26.02	15.49

CARP0200-002 05/01/2016

ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON and WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER.....	$ 28.70	15.39
Diver.....	$ 39.41	10.40
PILEDRIVERMAN.....	$ 28.70	15.39

CARP0248-005 07/01/2008

LUCAS & WOOD

	Rates	Fringes
CARPENTER.....	$ 27.27	14.58

CARP0248-008 07/01/2008

	Rates	Fringes
CARPENTER		
DEFIANCE, FULTON, HANCOCK, HENRY, PAULDING & WILLIAMS COUNTIES	$ 23.71	13.28

CARP0254-002 05/01/2014

ASHTABULA, CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
CARPENTER	$ 31.61	14.46

CARP0372-002 07/01/2008

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM & VAN WERT

	Rates	Fringes
CARPENTER	$ 23.18	13.28

CARP0639-003 05/01/2014

MEDINA, PORTAGE & SUMMIT

	Rates	Fringes
CARPENTER	$ 29.59	14.64

CARP0735-002 05/01/2014

ASHLAND, ERIE, HURON, LORAIN & RICHLAND

	Rates	Fringes
CARPENTER	$ 24.80	13.29

CARP1311-001 05/01/2014

BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN

	Rates	Fringes
Carpenter & Piledrivermen	$ 27.39	14.33
Diver	$ 40.58	9.69

CARP1393-002 07/01/2008

CRAWFORD, DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
Piledrivermen & Diver's Tender	$ 27.30	16.05

DIVERS - $250.00 per day

CARP1393-003 07/01/2008

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM, VAN WERT & WYANDOT

	Rates	Fringes
Piledrivermen & Diver's Tender...	$ 25.15	15.92

DIVERS - $250.00 per day

CARP1871-006 06/01/2013

BELMONT, HARRISON, & MONROE

	Rates	Fringes
Diver, Wet.....	$ 47.07	13.92
Piledrivermen; Diver, Dry.....	$ 31.38	13.92

CARP1871-008 06/01/2013

ASHLAND, ASHTABULA, CUYAHOGA, ERIE, GEAUGA, HURON, LAKE, LORAIN, MEDINA, PORTAGE, RICHLAND & SUMMIT

	Rates	Fringes
Diver, Wet.....	$ 44.22	15.49
Piledrivermen; Diver, Dry.....	$ 29.48	15.49

CARP1871-014 06/01/2013

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
Diver, Wet.....	$ 37.40	13.81
Piledrivermen; Diver, Dry.....	$ 24.93	13.81

CARP1871-015 06/01/2013

COSHOCTON, HOLMES, KNOX & MORROW

	Rates	Fringes
Diver, Wet.....	$ 36.53	12.96
Piledrivermen; Diver, Dry.....	$ 24.35	12.96

CARP1871-017 06/01/2013

MAHONING & TRUMBULL

	Rates	Fringes
Diver, Wet.....	$ 39.44	14.16
Piledrivermen; Diver, Dry.....	$ 26.29	14.16

CARP2235-012 01/01/2014

COLUMBIANA & JEFFERSON

	Rates	Fringes
PILEDRIVERMAN	$ 31.74	16.41

CARP2239-001 07/01/2008

CRAWFORD, OTTAWA, SANDUSKY, SENECA & WYANDOT

	Rates	Fringes
CARPENTER	$ 23.71	13.28

ELEC0008-002 05/23/2016

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
CABLE SPLICER	$ 38.98	18.96
ELECTRICIAN	$ 37.36	4.5%+18.63

ELEC0032-003 06/01/2014

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY, VAN WERT & WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Ridgeland, Ridge & Salem Townships)

	Rates	Fringes
ELECTRICIAN	$ 28.32	15.18

ELEC0032-004 06/01/1998

ALLEN, HARDIN, VAN WERT & WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Richland, Ridge & Salem Townships)

	Rates	Fringes
Line Construction		
Equipment Operator	$ 20.27	4.12+a
Groundman Truck Driver	$ 14.43	3.63+a
Lineman	$ 22.52	4.31+a

FOOTNOTE: a. Half day's Paid Holiday: The last 4 hours of the workday prior to Christmas or New Year's Day

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ELEC0038-002 04/25/2016

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) & LORAIN (Columbia Township)

	Rates	Fringes
ELECTRICIAN		
Excluding Sound & Communications Work	$ 37.13	20.38

FOOTNOTES;
a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; & Christmas Day
b. 1 week's paid vacation for 1 year's service; 2 weeks' paid vacation for 2 or more years' service

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ELEC0038-008 04/25/2016

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) & LORAIN (Columbia Township)

	Rates	Fringes
Sound & Communication Technician		
Communications Technician	$ 26.05	10.90+a+b
Installer Technician	$ 24.80	10.86+a+b

FOOTNOTES;
a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; & Christmas Day
b. 1 week's paid vacation for 1 year's service; 2 weeks' paid vacation for 2 or more years' service

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ELEC0064-003 11/28/2016

COLUMBIANA (Butler, Fairfield, Perry, Salem & Unity Townships) MAHONING (Austintown, Beaver, Berlin, Boardman, Canfield, Ellsworth, Coitsville, Goshen, Green, Jackson, Poland, Springfield & Youngstown Townships), & TRUMBULL (Hubbard & Liberty Townships)

	Rates	Fringes
ELECTRICIAN	$ 32.27	14.39

ELEC0071-001 12/28/2015

ASHLAND, CHAMPAIGN, CLARK, COSHOCTON, CRAWFORD, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GUERNSEY, HIGHLAND, HOCKING, JACKSON (Coal, Jackson, Liberty, Milton, Washington & Wellston Townships), KNOX, LICKING, MADISON, MARION, MONROE, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, Peepee, Perry & Seal Townships), RICHLAND, ROSS, TUSCARAWAS (Auburn, Bucks, Clay, Jefferson, Oxford, Perry, Salem, Rush, Washington & York Townships), UNION, VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships), and WASHINGTON COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operators	$ 32.24	12.34
Groundmen	$ 23.28	10.37
Linemen & Cable Splicers	$ 35.82	13.13

ELEC0071-004 12/28/2015

AUGLAIZE, CLINTON, DARKE, GREENE, LOGAN, MERCER, MIAMI, MONTGOMERY, PREBLE, and SHELBY COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator	$ 32.24	12.34
Groundman	$ 23.28	10.37
Lineman & Cable Splicers	$ 35.82	13.13

ELEC0071-005 12/29/2015

ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN

	Rates	Fringes
LINE CONSTRUCTION: Equipment Operator		
DOT/Traffic Signal & Highway Lighting Projects	$ 31.30	13.07
Municipal Power/Transit Projects	$ 37.34	14.58
LINE CONSTRUCTION: Groundman		
DOT/Traffic Signal & Highway Lighting Projects	$ 24.34	11.33
Municipal Power/Transit Projects	$ 29.05	12.51
LINE CONSTRUCTION: Linemen/Cable Splicer		
DOT/Traffic Signal & Highway Lighting Projects	$ 34.78	13.94
Municipal Power/Transit Projects	$ 41.49	15.61

ELEC0071-008 12/28/2015

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator	$ 32.24	12.34
Groundman	$ 23.28	10.37
Lineman & Cable Splicers	$ 35.82	13.13

ELEC0071-010 12/28/2015

BELMONT, CARROLL, HARRISON, HOLMES, JEFFERSON, MEDINA, PORTAGE, STARK, SUMMIT, and WAYNE COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator	$ 32.24	12.34
Groundman	$ 23.28	10.37
Lineman & Cable Splicers	$ 35.82	13.13

ELEC0071-013 12/28/2015

BROWN, BUTLER, CLERMONT, HAMILTON, and WARREN COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator	$ 32.24	12.34
Groundman	$ 23.28	10.37
Lineman & Cable Splicers	$ 35.82	13.13

ELEC0071-014 12/28/2015

ADAMS, ATHENS, GALLIA, JACKSON (Bloomfield, Franklin, Hamilton, Lick, Jefferson, Scioto & Madison Townships), LAWRENCE, MEIGS, PIKE (Camp Creek, Marion, Newton, Scioto, Sunfish & Union Townships), SCIOTO & VINTON (Brown, Knox, Madison, Vinton & Wilkesville Townships)

	Rates	Fringes
Line Construction		
Equipment Operator	$ 32.24	12.34
Groundman	$ 23.28	10.37
Lineman & Cable Splicers	$ 35.82	13.13

ELEC0082-002 12/05/2016

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
ELECTRICIAN	$ 29.05	18.21

ELEC0082-006 12/05/2016

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
Sound & Communication Technician		
Cable Puller	$ 10.24	4.91
Installer/Technician	$ 23.05	10.98

ELEC0129-003 02/29/2016

LORAIN (Except Columbia Township) & MEDINA (Litchfield & Liverpool Townships)

	Rates	Fringes
ELECTRICIAN	$ 32.35	16.24

ELEC0129-004 02/29/2016

ERIE & HURON (Lyme, Ridgefield, Norwalk, Townsend, Wakeman, Sherman, Peru, Bronson, Hartland, Clarksfield, Norwich, Greenfield, Fairfield, Fitchville & New London Townships)

	Rates	Fringes
ELECTRICIAN	$ 32.35	16.24

ELEC0141-003 09/05/2016

BELMONT COUNTY

	Rates	Fringes
CABLE SPLICER	$ 32.45	24.22
ELECTRICIAN	$ 29.20	23.63

ELEC0212-003 06/06/2016

BROWN, CLERMONT & HAMILTON

	Rates	Fringes
Sound & Communication Technician	$ 27.47	17.78

ELEC0212-005 06/06/2016

BROWN, CLERMONT, and HAMILTON COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 27.47	17.78

* ELEC0245-003 01/01/2017

DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, and WOOD COUNTIES

	Rates	Fringes
Line Construction		
Cable Splicer	$ 43.34	25.2%+5.50+a
Groundman/Truck Driver	$ 16.49	25.2%+5.50+a
Heli-arc Welding	$ 37.99	25.2%+5.50+a
Lineman	$ 37.69	25.2%+5.50+a
Operator - Class 1	$ 30.15	25.2%+5.50+a

Operator - Class 2	$ 26.38	25.2%+5.50+a
Traffic Signal & Lighting Technician	$ 33.92	25.2%+5.50+a

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

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* ELEC0245-004 01/01/2017

ERIE COUNTY

	Rates	Fringes
Line Construction		
Cable Splicer	$ 43.34	25.2%+5.50+a
Groundman/Truck Driver	$ 16.49	25.2%+5.50+a
Lineman	$ 37.69	25.2%+5.50+a
Operator - Class 1	$ 30.15	25.2%+5.50+a
Operator - Class 2	$ 26.38	25.2%+5.50+a

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

ELEC0246-006 10/29/2012

	Rates	Fringes
ELECTRICIAN	$ 33.00	26.16

ELEC0306-005 05/30/2016

MEDINA (Brunswick, Chatham, Granger, Guilford, Harrisville, Hinckley, Homer, Lafayette, Medina, Montville, Sharon, Spencer, Wadsworth, Westfield & York Townships), PORTAGE (Atwater, Aurora, Brimfield, Deerfield, Franklin, Mantua, Randolph, Ravenna, Rootstown, Shalersville, Streetsboro & Suffield Townships), SUMMIT & WAYNE (Baughman, Canaan, Chester, Chippewa, Congress, Green, Milton, & Wayne Townships)

	Rates	Fringes
CABLE SPLICER	$ 36.87	16.56
ELECTRICIAN	$ 33.79	5%+16.41

ELEC0317-002 06/01/2016

GALLIA & LAWRENCE

	Rates	Fringes
CABLE SPLICER	$ 32.68	18.13

ELECTRICIAN	$ 33.31	22.98

ELEC0540-005 12/26/2016

CARROLL (Northern half, including Fox, Harrison, Rose & Washington Townhships), COLUMBIANA (Knox Township), HOLMES, MAHONING (Smith Township), STARK, TUSCARAWAS (North of Auburn, Clay, Rush & York Townships), and WAYNE (South of Baughman, Chester, Green & Wayne Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 30.79	22.26

ELEC0573-003 06/01/2015

ASHTABULA (Colebrook, Wayne, Williamsfield, Orwell & Windsor Townships), GEAUGA (Auburn, Middlefield, Parkman & Troy Townships), MAHONING (Milton Township), PORTAGE (Charlestown, Edinburg, Freedom, Hiram, Nelson, Palmyra, Paris & Windham Townships), and TRUMBULL (Except Liberty & Hubbard Townships)

	Rates	Fringes
ELECTRICIAN	$ 30.57	16.85

ELEC0575-001 01/02/2017

ADAMS, FAYETTE, HIGHLAND, HOCKING, JACKSON (Bloomfield, Franklin, Hamilton, Jefferson, Lick, Madison, Scioto, Coal, Jackson, Liberty, Milton & Washington Townships), PICKAWAY (Deer Creek, Perry, Pickaway, Salt Creek & Wayne Townships), PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, PeePee, Perry, Seal, Camp Creek, Newton, Scioto, Sunfish, Union & Marion Townships), ROSS, SCIOTO & VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships)

	Rates	Fringes
ELECTRICIAN	$ 32.15	15.17

ELEC0648-001 09/05/2016

BUTLER and WARREN COUNTIES (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union & Washington Townships)

	Rates	Fringes
CABLE SPLICER	$ 30.50	17.23
ELECTRICIAN	$ 30.00	17.20

ELEC0673-004 01/02/2017

ASHTABULA (Excluding Orwell, Colebrook, Williamsfield, Wayne & Windsor Townships), GEAUGA (Burton, Chardon, Claridon, Hambden, Huntsburg, Montville, Munson, Newbury & Thompson Townships) and

LAKE COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 33.03	3%+18.24
ELECTRICIAN	$ 32.78	3%+18.24

ELEC0683-002 05/30/2016

CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD, FRANKLIN, MADISON, PICKAWAY (Circleville, Darby, Harrison, Jackson, Madison, Monroe, Muhlenberg, Scioto, Walnut & Washington Townships), and UNION COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 31.45	15.85
ELECTRICIAN	$ 31.85	17.38

ELEC0688-003 05/30/2016

ASHLAND, CRAWFORD, HURON (Richmond, New Haven, Ripley & Greenwich Townships), KNOX (Liberty, Clinton, Union, Howard, Monroe, Middleberry, Morris, Wayne, Berlin, Pike, Brown & Jefferson Townships), MARION, MORROW, RICHLAND and WYANDOT (Sycamore, Crane, Eden, Pitt, Antrim & Tymochtee Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 28.16	16.34

ELEC0972-002 06/01/2015

ATHENS, MEIGS, MONROE, MORGAN, NOBLE, VINTON (Brown, Knox, Madison, Vinton & Wilkesville Townships), and WASHINGTON COUNITES

	Rates	Fringes
CABLE SPLICER	$ 32.74	22.38
ELECTRICIAN	$ 32.49	22.38

ELEC1105-001 01/02/2017

COSHOCTON, GUERNSEY, KNOX (Jackson, Clay, Morgan, Miller, Milford, Hilliar, Butler, Harrison, Pleasant & College Townships), LICKING, MUSKINGUM, PERRY, and TUSCARAWAS (Auburn, York, Clay, Jefferson, Rush, Oxford, Washington, Salem, Perry & Bucks Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 30.05	16.38

ENGI0018-003 06/01/2016

ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA, PORTAGE, and SUMMIT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 35.33	14.41
GROUP 2	$ 35.23	14.41
GROUP 3	$ 34.19	14.41
GROUP 4	$ 32.97	14.41
GROUP 5	$ 27.68	14.41
GROUP 6	$ 35.58	14.41
GROUP 7	$ 35.58	14.41

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; Wheel Excavator; and Asphalt Plant Engineer (Cleveland District Only).

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Horizontal Directional Drill (Over 50,000 ft lbs thrust); Hydro Milling Machine; Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); Vermeer type Concrete Saw; and Maintenance Operators (Portage and Summit Counties Only).

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer (Portage and Summit Counties Only); Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); Welding Machines; and Railroad Tie Inserter/Remover; Articulating/straight bed end dumps if assigned (minus $4.00 per hour.

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Forklift; Form Trencher; Hydro Hammer expect masonary; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt Plant); Generator; Masonry Fork Lift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

ENGI0018-004 06/01/2016

ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, and YANDOT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 33.84	14.41
GROUP 2	$ 33.72	14.41
GROUP 3	$ 32.68	14.41
GROUP 4	$ 31.50	14.41
GROUP 5	$ 26.04	14.41
GROUP 6	$ 34.09	14.41
GROUP 7	$ 34.09	14.41

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; and Wheel Excavator.

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 50,000 ft. lbs. thrust);Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); and Vermeer type Concrete Saw.

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Railroad

Tie Inserter/Remover; Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); and Welding Machines; Artiaculating/straight bed end dumps if assigned (minus $4.00 per hour.

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift; Form Trencher; Hydro Hammer expect masonary; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt Plant); Generator; Masonary Forklift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

ENGI0066-023 06/01/2014

COLUMBIANA, MAHONING & TRUMBULL COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 1 - A & B	$ 37.55	17.51
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 2 - A & B	$ 37.22	17.51
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 3 - A & B	$ 33.49	17.51
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 4 - A & B	$ 29.54	17.51
ASBESTOS; HAZARDOUS/TOXIC		

WASTE PROJECTS

GROUP 5 - A & B.....$ 26.15 17.51
HAZARDOUS/TOXIC WASTE
PROJECTS

GROUP 1 - C & D.....$ 34.42 17.51
HAZARDOUS/TOXIC WASTE
PROJECTS

GROUP 2 - C & D.....$ 34.12 17.51
HAZARDOUS/TOXIC WASTE
PROJECTS

GROUP 3 - C & D.....$ 30.70 17.51
HAZARDOUS/TOXIC WASTE
PROJECTS

GROUP 4 - C & D.....$ 27.08 17.51
HAZARDOUS/TOXIC WASTE
PROJECTS

GROUP 5 - C & D.....$ 23.97 17.51
ALL OTHER WORK

GROUP 1.....$ 31.29 17.51
ALL OTHER WORK

GROUP 2.....$ 31.02 17.51
ALL OTHER WORK

GROUP 3.....$ 27.91 17.51
ALL OTHER WORK

GROUP 4.....$ 24.62 17.51
ALL OTHER WORK

GROUP 5.....$ 21.79 17.51

GROUP 1 - Rig, Pile Driver or Caisson Type; & Rig, Pile Hydraulic Unit Attached

GROUP 2 - Asphalt Heater Planer; Backfiller with Drag Attachment; Backhoe; Backhoe with Shear attached; Backhoe-Rear Pivotal Swing; Batch Plant-Central Mix Concrete; Batch Plant, Portable concrete; Berm Builder-Automatic; Boat Derrick; Boat-Tug; Boring Machine Attached to Tractor; Bullclam; Bulldozer; C.M.I. Road Builder & Similar Type; Cable Placer & Layer; Carrier-Straddle; Carryall-Scraper or Scoop; Chicago Boom; Compactor with Blade Attached; Concrete Saw (Vermeer or similar type); Concrete Spreader Finisher; Combination, Bidwell Machine; Crane; Crane-Electric Overhead; Crane-Rough Terrain; Crane-Side Boom; Crane-Truck; Crane-Tower; Derrick-Boom; Derrick-Car; Digger-Wheel (Not trencher or road widener); Double Nine; Drag Line; Dredge; Drill-Kenny or Similar Type; Easy Pour Median Barrier Machine (or similar type); Electromatic; Frankie Pile; Gradall; Grader; Gurry; Self-Propelled; Heavy Equipment Robotics Operator/Mechanic; Hoist-Monorail;

Hoist-Stationary & Mobile Tractor; Hoist, 2 or 3 drum; Horizontal Directional Drill Operator; Jackall; Jumbo Machine; Kocal & Kuhlman; Land-Seagoing Vehicle; Loader, Elevating; Loader, Front End; Loader, Skid Steer; Locomotive; Mechanic/Welder; Metro Chip Harvester with Boom; Mucking Machine; Paver-Asphalt Finishing Machine; Paver-Road Concrete; Paver-Slip Form (C.M.I. or similar); Place Crete Machine with Boom; Post Driver (Carrier mounted); Power Driven Hydraulic Pump & Jack (When used in Slip Form or Lift Slab Construction); Pump Crete Machine; Regulator-Ballast; Hydraulic Power Unit not attached to Rig for Pile Drillings; Rigs-Drilling; Roto Mill or similar Full Lane (8' Wide & Over); Roto Mill or similar type (Under 8'); Shovel; Slip Form Curb Machine; Speedwing; Spikemaster; Stonecrusher; Tie Puller & Loader; Tie Tamper; Tractor-Double Boom; Tractor with Attachments; Truck-Boom; Truck-Tire; Trench Machine; Tunnel Machine (Mark 21 Java or similar); & Whirley (or similar type)

GROUP 3 - Asphalt Plant; Bending Machine (Pipeline or similar type); Boring machine, Motor Driven; Chip Harvester without Boom; Cleaning Machine, Pipeline Type; Coating Machine, Pipeline Type; Compactor; Concrete Belt Placer; Concrete Finisher; Concrete Planer or Asphalt; Concrete Spreader; Elevator; Fork Lift (Home building only); Fork lift & Lulls; Fork Lift Walk Behind (Hoisting over 1 buck high); Form Line Machine; Grease Truck operator; Grout Pump; Gunnite Machine; Horizontal Directional Drill Locator; Single Drum Hoist with or without Tower; Huck Bolting Machine; Hydraulic Scaffold (Hoisting building materials); Paving Breaker (Self-propelled or Ridden); Pipe Dream; Pot Fireperson (Power Agitated); Refrigeration Plant; Road Widener; Roller; Sasgen Derrick; Seeding Machine; Soil Stabilizer (Pump type); Spray Cure Machine, Self-Propelled; Straw Blower Machine; Sub-Grader; Tube Finisher or Broom C.M.I. or similar type; & Tugger Hoist

GROUP 4 - Air Curtain Destructor & Similar Type; Batch Plant-Job Related; Boiler Operator; Compressor; Conveyor; Curb Builder, self-propelled; Drill Wagon; Generator Set; Generator-Steam; Heater-Portable Power; Hydraulic Manipulator Crane; Jack-Hydraulic Power driven; Jack-Hydraulic (Railroad); Ladavator; Minor Machine Operator; Mixer-Concrete; Mulching Machine; Pin Puller; Power Broom; Pulverizer; Pump; Road Finishing Machine (Pull Type); Saw-Concrete-Self-Propelled (Highway Work); Signal Person; Spray Cure Machine-Motor Powered; Stump Cutter; Tractor; Trencher Form; Water Blaster; Steam Jenny; Syphon; Vibrator-Gasoline; & Welding Machine

GROUP 5 - Brakeperson; Fireperson; & Oiler

IRON0017-002 05/01/2016

ASHTABULA (North of Route 6, starting at the Geauga County Line, proceeding east to State Route 45), CUYAHOGA, ERIE (Eastern 2/3), GEAUGA, HURON (East of a line drawn from the north border through Monroeville & Willard), LAKE, LORAIN, MEDINA (North of Old Rte. #224), PORTAGE (West of a line from

Middlefield to Shalersville to Deerfield), and SUMMIT (North of Old Rte. #224, including city limits of Barberton) COUNTIES

	Rates	Fringes
IRONWORKER		
Ornamental, Reinforcing, & Structural	$ 33.33	20.55

IRON0017-010 05/01/2016

ASHTABULA (Eastern part from Lake Erie on the north to route #322 on the south to include Conneaut, Kingsville, Sheffield, Denmark, Dorset, Cherry Valley, Wayne, Monroe, Pierpont, Richmond, Andover & Williamsfield Townships)

	Rates	Fringes
IRONWORKER		
Structural, including metal building erection & Reinforcing	$ 33.33	20.55

IRON0044-002 06/01/2016

CLINTON (South of a line drawn from Blanchester to Lynchburg), HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of county inside lines drawn from Marshall to Lynchburg from the northern county line through E. Monroe to Marshall) & WARREN (South of a line drawn from Blanchester through Morrow to the west county line)

	Rates	Fringes
IRONWORKER		
Fence Erector	$ 25.15	20.20
Ornamental; Structural	$ 26.47	20.20

IRON0055-003 07/01/2015

CRAWFORD (Area Between lines drawn from where Hwy #598 & #30 meet through N. Liberty to the northern border & from said Hwy junction point due west to the border), DEFIANCE (S. of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), ERIE (Western 1/3), FULTON, HANCOCK, HARDIN (North of a line drawn from Maysville to a point 4 miles south of the northern line on the eastern line), HENRY, HURON (West of a line drawn from the northern border through Monroeville & Willard), LUCAS, OTTAWA, PUTNAM (East of a line drawn from the northern border down through Miller City to where #696 meets the southern border), SANDUSKY, SENECA, WILLIAMS (East of a line drawn from Pioneer through Stryker to the southern border), WOOD & WYANDOT (North of Rte. #30)

	Rates	Fringes

IRONWORKER		
Fence Erector	$ 20.00	20.13
Flat Road Mesh	$ 20.75	18.00
Tunnels & Caissons Under Pressure	$ 28.50	18.00
All Other Work	$ 29.12	21.47

IRON0147-002 06/01/2015

ALLEN (Northern half), DEFIANCE (Northern part, excluding south of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), MERCER (Northern half), PAULDING, PUTNAM (Western part, excluding east of a line drawn from the northern border down through Miller City to where #696 meets the southern border), VAN WERT, and WILLIAMS (Western part, excluding east of a line drawn from Pioneer through Stryker to the southern border) COUNTIES

	Rates	Fringes
IRONWORKER	$ 25.39	20.64

IRON0172-002 06/01/2016

CHAMPAIGN (Eastern one-third), CLARK (Eastern one-fourth), COSHOCTON (West of a line beginning at the northwestern county line going through Walhonding & Tunnel Hill to the southern county line), CRAWFORD (South of Rte. #30), DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, HARDIN (Excluding a line drawn from Roundhead to Maysville), HIGHLAND (Eastern one-fifth), HOCKING, JACKSON (Northern half), KNOX, LICKING, LOGAN (Eastern one-third), MADISON, MARION, MORROW, MUSKINGUM (West of a line starting at Adams Mill going to Adamsville & going from Adamsville through Blue Rock to the southern border), PERRY, PICKAWAY, PIKE (Northern half), ROSS, UNION, VINTON and WYANDOT (South of Rte. #30) COUNTIES

	Rates	Fringes
IRONWORKER	$ 28.12	19.94

IRON0207-004 06/01/2015

ASHTABULA (Southern part starting at the Geauga County line), COLUMBIANA (E. of a line from Damascus to Highlandtown), MAHONING (N. of Old Route #224), PORTAGE (E. of a line from Middlefield to Shalersville to Deerfield) & TRUMBULL

	Rates	Fringes
IRONWORKER		
Layout; Sheeter	$ 29.06	22.70
Ornamental; Reinforcing; Structural	$ 28.06	22.70

IRON0290-002 06/01/2016

ALLEN (Southern half), AUGLAIZE, BUTLER (North of a line drawn from east to the west county line going through Oxford, Darrtown & Woodsdale), CHAMPAIGN (Excluding east of a line drawn from Catawla to the point where #68 intersects the northern county line), CLARK (Western two-thirds), CLINTON (Excluding south of a line drawn from Blanchester to Lynchburg), DARKE, GREENE, HIGHLAND (Inside lines drawn from Marshall to Lynchburg & from the northern county line through East Monroe to Marshall), LOGAN (West of a line drawn from West Liberty to where the northern county line meets the western county line of Hardin), MERCER (Southern half), MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN (Excluding south of a line drawn from Blanchester through Morrow to the western county line) COUNTIES

	Rates	Fringes
IRONWORKER	$ 27.00	20.93

IRON0372-002 07/01/2016

ADAMS (Western Part), BROWN, BUTLER (Southern Part), CLERMONT, CLINTON (South of a line drawn from Blanchester to Lynchburg), HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of county inside lines drawn from Marshall to Lynchburg from the northern county line through E. Monroe to Marshall) and WARREN (South of a line drawn from Blanchester through Morrow to the west county line) COUNTIES

	Rates	Fringes
IRONWORKER, REINFORCING		
Beyond 30-mile radius of Hamilton County Courthouse	$ 27.40	20.15
Up to & including 30-mile radius of Hamilton County Courthouse	$ 27.15	20.15

IRON0549-003 12/01/2015

BELMONT, GUERNSEY, HARRISON, JEFFERSON, MONROE & MUSKINGUM (Excluding portion west of a line starting at Adams Mill going to Adamsville and going from Adamsville through Blue Rock to the south border)

	Rates	Fringes
IRONWORKER	$ 32.74	17.84

IRON0550-004 05/01/2016

ASHLAND, CARROLL, COLUMBIANA (W. of a line from Damascus to Highlandtown), COSHOCTON (E. of a line beginning at NW Co. line going through Walhonding & Tunnel Hill to the South Co. line), HOLMES, HURON (S. of Old Rte. #224), MAHONING (S. of Old Rte. #224), MEDINA (S. of Old Rte. #224), PORTAGE (S. of Old Rte.

#224), RICHLAND, STARK, SUMMIT (S. of Old Rte. #224, Excluding city limits of Barberton), TUSCARAWAS, & WAYNE

	Rates	Fringes
Ironworkers:Structural, Ornamental and Reinforcing	$ 27.20	18.42

IRON0769-004 06/01/2016

ADAMS (Eastern Half), GALLIA, JACKSON (Southern Half), LAWRENCE & SCIOTO

	Rates	Fringes
IRONWORKER	$ 31.33	23.47

IRON0787-003 06/01/2015

ATHENS, MEIGS, MORGAN, NOBLE, and WASHINGTON COUNTIES

	Rates	Fringes
IRONWORKER	$ 30.28	20.15

LABO0265-008 05/01/2016

	Rates	Fringes
LABORER		
ASHTABULA, ERIE, HURON, LORAIN, LUCAS, MAHONING, MEDINA, OTTAWA, PORTAGE, SANDUSKY, STARK, SUMMIT, TRUMBULL & WOOD COUNTIES		
GROUP 1	$ 29.65	10.35
GROUP 2	$ 29.82	10.35
GROUP 3	$ 30.15	10.35
GROUP 4	$ 30.60	10.35
CUYAHOGA AND GEAUGA COUNTIES ONLY: SEWAGE PLANTS, WASTE PLANTS, WATER TREATMENT FACILITIES, PUMPING STATIONS, & ETHANOL PLANTS CONSTRUCTION	$ 32.26	10.35
CUYAHOGA, GEAUGA & LAKE COUNTIES		
GROUP 1	$ 30.88	10.35
GROUP 2	$ 31.05	10.35
GROUP 3	$ 31.38	10.35
GROUP 4	$ 31.83	10.35
REMAINING COUNTIES OF OHIO		
GROUP 1	$ 29.22	10.35
GROUP 2	$ 29.39	10.35
GROUP 3	$ 29.72	10.35
GROUP 4	$ 30.17	10.35

LABORER CLASSIFICATIONS

GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing Applicator; Dump Man (Batch Truck); Guardrail and Fence Installer; Joint Setter; Laborer (Construction); Landscape Laborer; Mesh Handlers & Placer; Right-of-way Laborer; Riprap Laborer & Grouter; Scaffold Erector; Seal Coating; Surface Treatment or Road Mix Laborer; Sign Installer; Slurry Seal; Utility Man; Bridge Man; Handyman; Waterproofing Laborer; Flagperson; Hazardous Waste (level D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Asphalt Raker; Concrete Puddler; Kettle Man Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Paint Striper; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning); Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander; Wrencher (Mechanical Joints & Utility Pipeline); Yarner; Hazardous Waste (level A); Concrete Specialist; Concrete Crew in Tunnels (With Air-pressurized - $1.00 premium); Curb Setter & Cutter; Grade Checker; Utility Pipeline Tapper; Waterline; and Caulker

GROUP 4 - Miner (With Air-pressurized - $1.00 premium); & Gunite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

PAIN0006-002 05/01/2016

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. of the East-West Turnpike) & SUMMIT (N. of the East-West Turnpike)

	Rates	Fringes
PAINTER		
COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS		
GROUP 1	$ 27.77	14.21
GROUP 2	$ 28.17	14.21
GROUP 3	$ 28.47	14.21
GROUP 4	$ 29.47	14.21
COMMERCIAL REPAINT		

GROUP 1	$ 26.27	14.21
GROUP 2	$ 26.67	14.21
GROUP 3	$ 26.97	14.21

PAINTER CLASSIFICATIONS - COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting; Closed Steel Above 55 feet; Bridges & Open Structural Steel; Tanks - Water Towers; Bridge Painters; Bridge Riggers; Containment Builders

GROUP 4 - Bridge Blaster

PAINTER CLASSIFICATIONS - COMMERCIAL REPAINT

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting

PAIN0007-002 07/01/2016

FULTON, HENRY, LUCAS, OTTAWA (Excluding Allen, Bay, Bono, Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach, Elliston, Elmore, Erie, Fishback, Gem Beach & Genova) & WOOD

	Rates	Fringes
PAINTER		
NEW COMMERCIAL WORK		
GROUP 1	$ 25.22	15.21
GROUP 2	$ 25.47	15.21
GROUP 3	$ 25.72	15.21
GROUP 4	$ 25.82	15.21
GROUP 5	$ 25.92	15.21
GROUP 6	$ 26.22	15.21
GROUP 7	$ 26.22	15.21
GROUP 8	$ 26.52	15.21
GROUP 9	$ 26.97	15.21

REPAINT IS 90% OF JR

PAINTER CLASSIFICATIONS

GROUP 1 - Brush; Spray & Sandblasting Pot Tender

GROUP 2 - Refineries & Refinery Tanks; Surfaces 30 ft. or over where material is applied to or labor performed on above ground level (exterior), floor level (interior)

GROUP 3 - Swing Stage & Chair

GROUP 4 - Lead Abatement

GROUP 5 - All Methods of Spray

GROUP 6 - Solvent-Based Catalized Epoxy Materials of 2 or More Component Materials, to include Solvent-Based Conversion Varnish (excluding water based)

GROUP 7 - Spray Solvent Based Material; Sand & Abrasive Blasting

GROUP 8 - Towers; Tanks; Bridges; Stacks Over 30 Feet

GROUP 9 - Epoxy Spray (excluding water based)

PAIN0012-008 05/01/2016

BUTLER COUNTY

	Rates	Fringes
PAINTER		
GROUP 1	$ 21.33	9.51
GROUP 2	$ 24.74	9.51
GROUP 3	$ 25.24	9.51
GROUP 4	$ 24.49	9.51
GROUP 5	$ 24.99	9.51

PAINTER CLASSIFICATIONS

GROUP 1: Bridge Equipment Tender; Bridge/Containment Builder

GROUP 2: Brush & Roller

GROUP 3: Spray

GROUP 4: Sandblasting; & Waterblasting

GROUP 5: Elevated Tanks; Steeplejack Work; Bridge; & Lead Abatement

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PAIN0012-010 05/01/2016

BROWN, CLERMONT, CLINTON, HAMILTON & WARREN

	Rates	Fringes
PAINTER		
HEAVY & HIGHWAY BRIDGES-		
GUARDRAILS-LIGHTPOLES-		
STRIPING		
Bridge Equipment Tender and Containment Builder	$ 21.33	9.51
Bridges when highest point of clearance is 60 feet or more; & Lead		

Abatement Projects	$ 24.99	9.51
Brush & Roller	$ 24.74	9.51
Sandblasting & Hopper Tender; Water Blasting	$ 24.49	9.51
Spray	$ 25.24	9.51

PAIN0093-001 12/01/2016

ATHENS, GUERNSEY, HOCKING, MONROE, MORGAN, NOBLE and WASHINGTON COUNTIES

	Rates	Fringes
PAINTER		
Bridges; Locks; Dams; Tension Towers; & Energized Substations	$ 33.14	16.70
Power Generating Facilities	$ 29.99	16.70

PAIN0249-002 05/01/2016

CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE

	Rates	Fringes
PAINTER		
GROUP 1 - Brush & Roller	$ 23.29	9.40
GROUP 2 - Swing, Scaffold Bridges; Structural Steel; Open Acid Tank; High Tension Electrical Equipment; & Hot Pipes	$ 23.29	9.40
GROUP 3 - Spray; Sandblast; Steamclean; Lead Abatement	$ 24.04	9.40
GROUP 4 - Steeplejack Work	$ 24.24	9.40
GROUP 5 - Coal Tar	$ 24.79	9.40
GROUP 6 - Bridge Equipment Tender & or Containment Builder	$ 26.53	9.40
GROUP 7 - Tanks, Stacks & Towers	$ 26.93	9.40
GROUP 8 - Bridge Blaster, Rigger	$ 32.90	9.40

PAIN0356-002 09/01/2009

KNOX, LICKING, MUSKINGUM, and PERRY

	Rates	Fringes
PAINTER		
Bridge Equipment Tenders and Containment Builders	$ 27.93	7.25
Bridges; Blasters; andRiggers	$ 34.60	7.25
Brush and Roller	$ 20.93	7.25
Sandblasting; Steam Cleaning; Waterblasting;		

and Hazardous Work	$ 25.82	7.25
Spray	$ 21.40	7.25
Structural Steel and Swing Stage	$ 25.42	7.25
Tanks; Stacks; and Towers	$ 28.63	7.25

PAIN0438-002 12/01/2016

BELMONT, HARRISON and JEFFERSON COUNTIES

	Rates	Fringes
PAINTER		
Bridges, Locks, Dams, Tension Towers & Energized Substations	$ 31.90	15.88
Power Generating Facilities	$ 28.75	15.88

PAIN0476-001 06/01/2016

COLUMBIANA, MAHONING, and TRUMBULL COUNITES

	Rates	Fringes
PAINTER		
GROUP 1	$ 25.37	11.93
GROUP 2	$ 27.37	11.93
GROUP 3	$ 25.58	11.93
GROUP 4	$ 25.87	11.93
GROUP 5	$ 26.02	11.93
GROUP 6	$ 26.27	11.93
GROUP 7	$ 27.37	11.93

PAINTER CLASSIFICATIONS:

GROUP 1: Painters, Brush & Roller

GROUP 2: Bridges

GROUP 3: Structural Steel

GROUP 4: Spray, Except Bar Joist/Deck

GROUP 5: Epoxy/Mastic; Spray- Bar Joist/Deck; Working Above 50 Feet; and Swingstages

GROUP 6: Tanks; Sandblasting

GROUP 7: Towers; Stacks

PAIN0555-002 06/01/2016

ADAMS, HIGHLAND, JACKSON, PIKE & SCIOTO

	Rates	Fringes
PAINTER		
GROUP 1	$ 30.00	14.62
GROUP 2	$ 31.38	14.62

GROUP 3	$ 32.76	14.62
GROUP 4	$ 35.45	14.62

PAINTER CLASSIFICATIONS

GROUP 1 - Containment Builder

GROUP 2 - Brush; Roller; Power Tools, Under 40 feet

GROUP 3 - Sand Blasting; Spray; Steam Cleaning; Pressure Washing; Epoxy & Two Component Materials; Lead Abatement; Hazardous Waste; Toxic Materials; Bulk & Storage Tanks of 25,000 Gallon Capacity or More; Elevated Tanks

GROUP 4 - Stacks; Bridges

PAIN0603-002 06/01/2012

CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
PAINTER		
Bridges; Towers, Poles & Stacks; Sandblasting Steel; Structural Steel & Metalizing	$ 20.71	11.00
Brush & Roller	$ 20.00	11.00
Spray; Tank Interior & Exterior	$ 20.53	11.00

PAIN0639-001 05/01/2011

	Rates	Fringes
Sign Painter & Erector	$ 20.61	3.50+a+b+c

FOOTNOTES: a. 7 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; Christmas Day & 1 Floating Day
b. Vacation Pay: After 1 year's service - 5 days' paid vacation; After 2, but less than 10 years' service - 10 days' paid vacation; After 10, but less than 20 years' service - 15 days' paid vacation; After 20 years' service - 20 days' paid vacation
c. Funeral leave up to 3 days maximum paid leave for death of mother, father, brother, sister, spouse, child, mother-in-law, father-in-law, grandparent and inlaw provided employee attends funeral

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PAIN0788-002 06/01/2016

ASHLAND, CRAWFORD, ERIE, HANCOCK, HURON, MARION, MORROW, OTTAWA (Allen, Bay, Bono, Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach, Elliston, Elmore, Erie, Fishback, Gem Beach & Genoa), RICHLAND, SANDUSKY, SENECA & WYANDOT

	Rates	Fringes
PAINTER		
Brush & Roller	$ 23.52	12.07
Structural Steel	$ 25.12	12.07

WINTER REPAINT: Between December 1 to March 31 - 90%JR

$.50 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

While working swingstage, boatswain chair, needle beam and horizontal cable. While operating sprayguns, sandblasting, cobblasting and high pressure waterblasting (4000psi).

$1.00 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

For the application of catalized epoxy, including latex epoxy that is deemed hazardous, lead abatement, or for work or material where special precautions beyond normal work duties must be taken. For working on stacks, tanks, and towers over 40 feet in height.

PAIN0813-005 12/01/2008

GALLIA, LAWRENCE, MEIGS & VINTON

	Rates	Fringes
PAINTER		
Base Rate	$ 24.83	10.00
Bridges, Locks, Dams & Tension Towers	$ 27.83	10.00

PAIN0841-001 06/01/2016

MEDINA, PORTAGE (South of and including Ohio Turnpike), and SUMMIT (South of and including Ohio Turnpike) COUNTIES

	Rates	Fringes
Painters:		
GROUP 1	$ 25.08	13.22
GROUP 2	$ 25.73	13.22
GROUP 3	$ 25.83	13.22
GROUP 4	$ 25.93	13.22
GROUP 5	$ 26.33	13.22
GROUP 6	$ 39.20	11.75
GROUP 7	$ 26.33	13.22

PAINTER CLASSIFICATIONS:

GROUP 1 - Brush, Roller & Paperhanger

GROUP 2 - Epoxy Application

GROUP 3 - Swing Scaffold, Bosum Chair, & Window Jack

GROUP 4 - Spray Gun Operator of Any & All Coatings

GROUP 5 - Sandblast, Painting of Standpipes, etc. from Scaffolds, Bridge Work and/or Open Structural Steel, Standpipes and/or Water Towers

GROUP 6 - Public & Commerce Transportation, Steel or Galvanized, Bridges, Tunnels & Related Support Items (concrete)

GROUP 7 - Synthetic Exterior, Drywall Finisher and/or Taper, Drywall Finisher and Follow-up Man Using Automatic Tools

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PAIN1020-002 07/01/2016

ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, and WILLIAMS COUNTIES

	Rates	Fringes
PAINTER		
Brush & Roller	$ 23.58	11.97
Drywall Finishing & Taping	$ 22.28	11.97
Lead Abatement	$ 25.33	11.97
Spray, Sandblasting Pressure Cleaning, & Refinery	$ 24.33	11.97
Swing Stage, Chair, Spiders, & Cherry Pickers	$ 23.83	11.97
Wallcoverings	$ 21.18	11.97

All surfaces 40 ft. or over where material is applied to or labor performed on, above ground level (exterior), floor level (interior) - $.50 premium

Applying Coal Tar Products - $1.00 premium

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* PAIN1275-002 11/01/2016

DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS & UNION

	Rates	Fringes
PAINTER		
Bridges	$ 34.58	11.86
Brush; Roller	$ 25.10	11.86
Sandblasting; Steamcleaning; Waterblasting (3500 PSI or Over)& Hazardous Work	$ 25.80	11.86
Spray	$ 25.60	11.86
Stacks; Tanks; & Towers	$ 28.61	11.86
Structural Steel & Swing Stage	$ 25.40	11.86

PLUM0042-002 07/01/2016

ASHLAND, CRAWFORD, ERIE, HURON, KNOX, LORAIN, MORROW, RICHLAND & WYANDOT

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 31.95	20.32

PLUM0050-002 07/04/2016

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 40.00	24.36

PLUM0055-003 05/02/2016

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, MEDINA (N. of Rte. #18 & Smith Road) & SUMMIT (N. of Rte. #303, including the corporate limits of the city of Hudson)

	Rates	Fringes
PLUMBER	$ 34.90	23.08

PLUM0083-001 07/01/2013

BELMONT & MONROE (North of Rte. #78)

	Rates	Fringes
Plumber and Steamfitter	$ 25.42	27.83

PLUM0094-002 05/01/2016

CARROLL (Northen Half), STARK, and WAYNE COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 34.53	17.49

PLUM0120-002 05/02/2016

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN (the C.E.I. Power House in Avon Lake), MEDINA (N. of Rte. #18) & SUMMIT (N. of #303)

	Rates	Fringes
PIPEFITTER	$ 36.77	22.90

PLUM0162-002 01/01/2017

CHAMPAIGN, CLARK, CLINTON, DARKE, FAYETTE, GREENE, MIAMI, MONTGOMERY & PREBLE

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 29.25	21.12

PLUM0168-002 06/01/2016

MEIGS, MONROE (South of Rte. #78), MORGAN (South of Rte. #78) & WASHINGTON

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 32.58	27.22

PLUM0189-002 06/01/2013

DELAWARE, FAIRFIELD, FRANKLIN, HOCKING, LICKING, MADISON, MARION, PERRY, PICKAWAY, ROSS & UNION

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 34.08	20.06

PLUM0219-002 06/01/2016

MEDINA (Rte. #18 from eastern edge of Medina Co., west to eastern corporate limits of the city of Medina, & on the county road from the west corporate limits of Medina running due west to and through community of Risley to the western edge of Medina County - All territory south of this line), PORTAGE, and SUMMIT (S. of Rte. #303) COUNTIES

	Rates	Fringes
Plumber and Steamfitter	$ 36.27	23.24

PLUM0392-002 06/01/2016

BROWN, BUTLER, CLERMONT, HAMILTON & WARREN

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 31.39	18.77

PLUM0396-001 06/01/2016

COLUMBIANA (Excluding Washington & Yellow Creek Townships & Liverpool Twp. - Secs. 35 & 36 - West of County Road #427), MAHONING and TRUMBULL COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 33.50	21.96

PLUM0495-002 06/01/2016

CARROLL (Rose, Monroe, Union, Lee, Orange, Perry & Loudon Townships), COLUMBIANA (Washington & Yellow Creek Townships & Liverpool Township, Secs. 35 & 36, West of County Rd. #427), COSHOCTON, GUERNSEY, HARRISON, HOLMES, JEFFERSON, MORGAN (South to State Rte. #78 & from McConnelsville west on State Rte. #37 to the Perry County line), MUSKINGUM, NOBLE, and TUSCARAWAS COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 41.08	21.26

PLUM0577-002 06/01/2016

ADAMS, ATHENS, GALLIA, HIGHLAND, JACKSON, LAWRENCE, PIKE, SCIOTO & VINTON

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 32.60	22.73

PLUM0776-002 07/01/2016

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY and VAN WERT COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 34.25	22.09

TEAM0377-003 05/01/2012

STATEWIDE, EXCEPT CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1	$ 23.38	13.18
GROUP 2	$ 23.80	13.18

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Asphalt Distributor; Batch; 4- Wheel Service; 4-Wheel Dump; Oil Distributor & Tandem

GROUP 2 - Tractor-Trailer Combination: Fuel; Pole Trailer;

Ready Mix; Semi-Tractor; & Asphalt Oil Spraybar Man When Operated From Cab; 5 Axles & Over; Belly Dump; End Dump; Articulated Dump; Heavy Duty Equipment; Low Boy; & Truck Mechanic

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* TEAM0436-002 05/01/2016

CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1	$ 27.90	14.85
GROUP 2	$ 28.40	14.85

GROUP 1: Straight & Dump, Straight Fuel

GROUP 2: Semi Fuel, Semi Tractor, Euclids, Darts, Tank, Asphalt Spreaders, Low Boys, Carry-All, Tourna-Rockers, Hi-Lifts, Extra Long Trailers, Semi-Pole Trailers, Double Hook-Up Tractor Trailers including Team Track & Railroad Siding, Semi-Tractor & Tri-Axle Trailer, Tandem Tractor & Tandem Trailer, Tag Along Trailer, Expandable Trailer or Towing Requiring Road Permits, Ready-Mix (Agitator or Non-Agitator), Bulk Concrete Driver, Dry Batch Truck, Articulated End Dump

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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

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

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

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage

determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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

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

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

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

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

General Decision Number: KY170101 03/10/2017 KY101

Superseded General Decision Number: KY20160101

State: Kentucky

Construction Type: Highway

Counties: Boone, Campbell, Kenton and Pendleton Counties in Kentucky.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	02/03/2017
2	03/10/2017

* BRKY0002-005 06/01/2016

	Rates	Fringes
BRICKLAYER	$ 27.01	11.38

BROH0001-005 06/01/2008

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 25.75	8.60

CARP0698-001 05/01/2014

BOONE, CAMPBELL, KENTON & PENDLETON COUNTIES:

	Rates	Fringes
Carpenter & Piledrivermen	$ 27.27	14.59
Diver	$ 40.58	9.69

ELEC0212-007 06/06/2016

	Rates	Fringes
ELECTRICIAN	$ 27.47	17.13

ELEC0212-013 12/01/2014

	Rates	Fringes
Sound & Communication Technician	$ 22.75	10.08

ENGI0018-013 05/01/2015

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 33.34	14.25
GROUP 2	$ 33.22	14.25
GROUP 3	$ 32.18	14.25
GROUP 4	$ 31.00	14.24
GROUP 5	$ 25.54	14.25
GROUP 6	$ 33.59	14.25
GROUP 7	$ 33.84	14.25

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; & Wheel Excavator

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 500,000 ft. lbs. thrust); Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications);

Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); & Vermeer type Concrete Saw

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); & Welding Machines

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway) except Masonry); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift (highway); Form Trencher; Hydro Hammer; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); & Vibratory Compactor with Integral Power

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt); Generator; Masonry Fork Lift; Inboard-Outboard Motor Boat Launch; Masonry Fork Lift; Oil Heater (asphalt plant); Oiler; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; & VAC/ALLS

GROUP 6 - Master Mechanic & Boom from 150 to 180

GROUP 7 - Boom from 180 and over

IRON0044-008 06/01/2016

	Rates	Fringes
Ironworkers:		
Fence Erector	$ 23.76	19.15
Structural	$ 26.47	19.15

IRON0372-004 07/15/2016

	Rates	Fringes
IRONWORKER, REINFORCING	$ 27.15	20.33

LABO0189-004 07/01/2016

PENDLETON COUNTY:

	Rates	Fringes
LABORER		
GROUP 1	$ 22.75	12.84
GROUP 2	$ 23.00	12.84
GROUP 3	$ 23.05	12.84
GROUP 4	$ 23.65	12.84

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Driller (All Types); Powderman & Blaster; Troxler & Concrete Tester if Laborer is Utilized

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LABO0265-009 05/01/2016

BOONE, CAMPBELL & KENTON COUNTIES:

	Rates	Fringes
LABORER		

GROUP 1	$ 29.22	10.35
GROUP 2	$ 29.39	10.35
GROUP 3	$ 29.72	10.35
GROUP 4	$ 30.17	10.35

LABORER CLASSIFICATIONS

GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing Applicator; Dump Man (Batch Truck); Guardrail and Fence Installer; Joint Setter; Laborer (Construction); Landscape Laborer; Highway Lighting Worker; Signalization Worker; Mesh Handlers & Placer; Right-of-way Laborer; Riprap Laborer & Grouter; Scaffold Erector; Seal Coating; Surface Treatment or Road Mix Laborer; Sign Installer; Slurry Seal; Utility Man; Bridge Man; Handyman; Waterproofing Laborer; Flagperson; Hazardous Waste (level D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Skid Steer; Asphalt Raker; Concrete Puddler; Kettle Man (Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning); Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander; Wrencher (Mechanical Joints & Utility Pipeline); Yarner; Hazardous Waste (level A); Concrete Specialist; Concrete Crew in Tunnels (With Air-pressurized - $1.00 premium); Curb Setter & Cutter; Grade Checker; Utility Pipeline Tapper; Waterline; and Caulker

GROUP 4 - Miner; & Gunite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

PAIN0012-016 05/01/2015

	Rates	Fringes
PAINTER		
Bridge	$ 24.39	9.06
Bridge Equipment Tender and Containment Builder	$ 20.73	9.06
Brush & Roller	$ 23.39	9.06
Sandblasting & Water		

Blasting	$ 24.14	9.06
Spray	$ 23.89	9.06

PLUM0392-008 06/01/2014

	Rates	Fringes
PLUMBER	$ 29.80	17.79

SUKY2010-161 02/05/1996

	Rates	Fringes
Truck drivers:		
GROUP 1	$ 15.85	4.60
GROUP 2	$ 16.29	4.60

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Driver

GROUP 2 - Euclid Wagon; End Dump; Lowboy; Heavy Duty Equipment; Tractor-Trailer Combination; & Drag

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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

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

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the

cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of

each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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

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

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

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

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contractor shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.

OVERTIME:

Overtime is to be paid after an employee works eight (8) hours a day or forty (40) hours a week, whichever gives the employee the greater wages. At least time and one-half the base rate is required for all overtime. A laborer, workman or mechanic and an employer may enter into a written agreement or a collective bargaining agreement to work more than eight (8) hours a calendar day but not more than ten (10) hours a calendar day for the straight time hourly rate. Wage violations or questions should be directed to the designated Engineer or the undersigned.

Director
Division of Construction Procurement
Frankfort, Kentucky 40622
502-564-3500

General Decision Number: KY170152 01/06/2017 KY152

Superseded General Decision Number: KY20160152

State: Kentucky

Construction Type: Heavy

County: Kenton County in Kentucky.

HEAVY CONSTRUCTION PROJECTS (including sewer/water construction).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017

ASBE0008-007 07/01/2016

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR	$ 29.40	15.67

ELEC0369-008 06/01/2016

	Rates	Fringes
ELECTRICIAN	$ 30.56	16.10

ENGI0018-016 05/01/2015

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Backhoe/Excavator/Trackhoe)	$ 33.34	14.25

ENGI0181-016 07/01/2016

	Rates	Fringes
POWER EQUIPMENT OPERATOR GROUP 1	$ 31.05	14.65

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Crane; Forklift

Operators on cranes with boom 150 feet and over, including jib, shall receive $0.75 above Group 1. All cranes with piling leads will receive $0.50 above Group 1 rate regardless of boom length. Combination rate shall mean $0.50 per hour above the basic hourly rate of pay.

Employees assigned to work below ground level are to be paid 10% above basic wage rate. This does not apply to open cut work.

ENGI0181-019 07/01/2016

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 31.05	14.65
GROUP 2	$ 28.28	14.65
GROUP 3	$ 28.71	14.65
GROUP 4	$ 27.97	14.65

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Drill; Pumpcrete; Roller (Bituminous)

GROUP 2 - Bobcat/Skid Steer/Skid Loader; Concrete Pump; Roller (Rock)

GROUP 3 - Articulating Truck Operator

GROUP 4 - Pump; Roller (Earth)

Operators on cranes with booms 150 feet and over (including jib) shall receive $1.00 above Group 1 rate; 250 feet and over including jib shall receive $1.50 above Class 1 rate. Combination Rate: All crane operators operating cranes, where the length of the boom in combination with the length of the piling leads equal or exceeds 150 feet, shall receive $1.00 above the Group 1 rate.

Employees assigned to work below ground level are to be paid 10% above basic wage rate. This does not apply to open cut work.

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* IRON0044-005 06/01/2016

	Rates	Fringes
IRONWORKER (STRUCTURAL AND REINFORCING)	$ 26.47	20.20

IRON0070-011 06/01/2016

	Rates	Fringes
IRONWORKER, ORNAMENTAL	$ 27.91	21.11

LABO0189-016 07/01/2015

	Rates	Fringes
LABORER		
Concrete Worker & Grade Checker	$ 22.30	12.46
Tamper(Hand Held/Walk Behind)	$ 22.55	12.46

LABO0265-005 05/01/2015

	Rates	Fringes
LABORER		
Concrete Saw (Hand Held/Walk Behind) & Pipelayer	$ 28.89	9.85
Flagger & Landscape	$ 28.72	9.85

SUKY2011-029 06/25/2014

	Rates	Fringes
CARPENTER (Form Work Only)	$ 24.80	8.76
LABORER: Common or General	$ 25.27	8.34
LABORER: Concrete Finishing	$ 25.75	8.60
OPERATOR: Bulldozer	$ 28.04	13.00
OPERATOR: Loader	$ 29.37	10.13
OPERATOR: Mechanic	$ 28.60	11.83
OPERATOR: Oiler	$ 24.34	13.00
OPERATOR: Trencher	$ 26.27	12.37
TRUCK DRIVER: Dump Truck	$ 19.00	4.78

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other

health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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

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

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Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

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date for the classifications and rates under that identifier.

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A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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

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

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

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
11.0%	6.9%

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

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

Evelyn Teague, Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75
Atlanta, Georgia 30303-8609

4. As used in this Notice, and in the contract resulting from this solicitation, the **"covered area"** is Kenton County.

PART IV

INSURANCE

INSURANCE
(Railroad Involvement)

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

1) Commercial General Liability-Occurrence form – not less than $2,000,000 General aggregate, $2,000,000 Products & Completed Aggregate, $1,000,000 Personal & Advertising, $1,000,000 each occurrence.

2) Automobile Liability- $1,000,000 per accident

3) Employers Liability:

   a) $100,000 Each Accident Bodily Injury
   b) $500,000 Policy limit Bodily Injury by Disease
   c) $100,000 Each Employee Bodily Injury by Disease

4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
   a) "policy contains no deductible clauses."
   b) "policy contains _____ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."

5) KENTUCKY WORKMEN'S COMPENSATION INSURANCE. The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

6) RAILROAD PROTECTIVE LIABILITY INSURANCE. The policy shall name the railroad as the Named Insured and the limit of liability shall be not less than $5,000,000 combined single limit for Bodily Injury and Property Damage per occurrence, subject to a $10,000,000 aggregate limit per annual policy period. If the project involves a rail facility where passenger trains operate, the insurance limits required that are not less than a combined single limit of $5,000,000 each occurrence and $10,000,000 in the aggregate applying separately to each annual period. The original of this policy must be submitted for the railroad’s approval and filing prior to the commencement of work on this project.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

PART V

BID ITEMS

172980

PROPOSAL BID ITEMS

Report Date 4/26/17

Section: 0001 - BRIDGE - OHIO RIVER BRIDGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	01984		DELINEATOR FOR BARRIER - WHITE	538.00	EACH		$	
0020	01985		DELINEATOR FOR BARRIER - YELLOW	533.00	EACH		$	
0030	02003		RELOCATE TEMP CONC BARRIER	15,979.00	LF		$	
0040	02275		FENCE-8 FT CHAIN LINK	65.00	LF		$	
0050	02281		PEDESTRIAN GATE-CHAIN LINK	1.00	EACH		$	
0060	02403		REMOVE CONCRETE MASONRY	.42	CUYD		$	
0070	02562		TEMPORARY SIGNS	4,390.00	SQFT		$	
0080	02562		TEMPORARY SIGNS (OVERHEAD SIGN MODIFICATION)	2,160.00	SQFT		$	
0090	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		$	
0100	02654		TRUCK MOUNTED ATTENUATOR	4.00	EACH		$	
0110	02671		PORTABLE CHANGEABLE MESSAGE SIGN	10.00	EACH		$	
0120	02775		ARROW PANEL	5.00	EACH		$	
0130	02898		RELOCATE CRASH CUSHION	6.00	EACH		$	
0140	03171		CONCRETE BARRIER WALL TYPE 9T	14,142.00	LF		$	
0150	03261		CLEAN BRIDGE DRAINS	128.00	EACH		$	
0160	04721		BRACKET 6 FT	34.00	EACH		$	
0170	04761		LIGHTING CONTROL EQUIPMENT	1.00	EACH		$	
0180	04780		FUSED CONNECTOR KIT	68.00	EACH		$	
0190	04793		CONDUIT-1 1/4 IN	340.00	LF		$	
0200	04795		CONDUIT-2 IN	775.00	LF		$	
0210	04800		MARKER	3.00	EACH		$	
0220	04810		ELECTRICAL JUNCTION BOX REPLACE JUNCTION BOX	3.00	EACH		$	
0230	04810		ELECTRICAL JUNCTION BOX REPLACE JUNCTION BOX COVER	10.00	EACH		$	
0240	04820		TRENCHING AND BACKFILLING	120.00	LF		$	
0250	04832		WIRE-NO. 12	2,580.00	LF		$	
0260	04833		WIRE-NO. 8	1,725.00	LF		$	
0270	04836		WIRE-NO. 2	80.00	LF		$	
0280	04940		REMOVE LIGHTING	1.00	LS		$	
0290	06511		PAVE STRIPING-TEMP PAINT-6 IN	44,434.00	LF		$	
0300	06515		PAVE STRIPING-PERM PAINT-6 IN	14,229.00	LF		$	
0310	06531		PAVE STRIPING REMOVAL-6 IN	49,115.00	LF		$	
0320	06550		PAVE STRIPING-TEMP REM TAPE-W	6,944.00	LF		$	
0330	06551		PAVE STRIPING-TEMP REM TAPE-Y	6,944.00	LF		$	
0340	06585		PAVEMENT MARKER TY IVA-MW TEMP	780.00	EACH		$	
0350	06586		PAVEMENT MARKER TY IVA-MY TEMP	289.00	EACH		$	
0360	06592		PAVEMENT MARKER TYPE V-B W/R	132.00	EACH		$	
0370	06593		PAVEMENT MARKER TYPE V-B Y/R	44.00	EACH		$	
0380	08104		CONCRETE-CLASS AA	.44	CUYD		$	
0390	08151		STEEL REINFORCEMENT-EPOXY COATED	209.00	LB		$	
0395	08504		EPOXY SAND SLURRY (ADDED: 4-26-17)	900.00	SQYD		$	
0400	08510		REM EPOXY BIT FOREIGN OVERLAY	17,670.50	SQYD		$	
0410	08526		CONC CLASS M FULL DEPTH PATCH	20.00	CUYD		$	
0420	08534		CONCRETE OVERLAY-LATEX	859.00	CUYD		$	
0425	08549		BLAST CLEANING (ADDED: 4-26-17)	1,013.00	SQYD		$	

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PROPOSAL BID ITEMS

Report Date 4/26/17

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0430	08550		HYDRODEMOLITION	17,670.50	SQYD		$	
0440	08820		DRAIN PIPE-6 IN	145.00	LF		$	
0450	08901		CRASH CUSHION TY VI CLASS BT TL2	4.00	EACH		$	
0460	10202ND		TIME COMPONENT (APPLIES TO ENTIRE PROJECT)	200,000.00	DOLL		$	
0470	20391NS835		ELECTRICAL JUNCTION BOX TYPE A	2.00	EACH		$	
0480	20411ED		LAW ENFORCEMENT OFFICER	2,880.00	HOUR		$	
0490	21543EN		BORE AND JACK CONDUIT	75.00	LF		$	
0500	21563NN		SPLICE BOX REPLACE SPLICE BOX COVER	2.00	EACH		$	
0510	21579EN		FLEX CONDUIT-1 1/4 IN	170.00	LF		$	
0520	24094EC		PARTIAL DEPTH PATCHING	130.00	CUYD		$	
0530	24525EC		ADVANCE WARNING FLASHER (TYPE B FOR TEMPORARY SIGNS)	68.00	EACH		$	
0540	24589ED		LED LUMINAIRE	34.00	EACH		$	
0550	24879EC		STEEL REPAIR DIAPHRAGM WELD REPAIR	10.00	EACH		$	
0560	24879EC		STEEL REPAIR FINGER JOINT BOLT REPLACE	12.00	EACH		$	
0570	24879EC		STEEL REPAIR FLOORBEAM T-CONNECTION REPAIR	15.00	EACH		$	
0580	24879EC		STEEL REPAIR FLOORBEAM TOP FLANGE REPAIR	2.00	EACH		$	
0590	24879EC		STEEL REPAIR INSPECTION WALK REPAIR	1.00	EACH		$	
0600	24879EC		STEEL REPAIR PIN GUIDE ANGLE REPLACEMENT	32.00	EACH		$	
0610	24897EC		EXPAN JOINT REPLACE 3/4 IN 3/4 IN	686.90	LF		$	
0620	24899EC		PAVE MARKING-THERMO ELONG ROUTE SHIELD	16.00	EACH		$	

Section: 0002 - BRIDGE - KENTUCKY APPROACH

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0630	00071		CRUSHED AGGREGATE SIZE NO 57	49.80	TON		$	
0640	01690		FLUME INLET TYPE 1	1.00	EACH		$	
0650	02157		PAVED DITCH TYPE 1	35.80	SQYD		$	
0660	02599		FABRIC-GEOTEXTILE TYPE IV	21.30	SQYD		$	
0670	03261		CLEAN BRIDGE DRAINS	25.00	EACH		$	
0680	08104		CONCRETE-CLASS AA	.45	CUYD		$	
0690	08150		STEEL REINFORCEMENT	273.00	LB		$	
0700	08435		JACK & SUPPORT BRIDGE SPAN	1.00	LS		$	
0710	08820		DRAIN PIPE-6 IN	40.00	LF		$	
0720	21969NN		BEARING REPLACEMENT INSTALL SHIM	72.00	EACH		$	
0730	21969NN		BEARING REPLACEMENT PIN REPLACEMENT	39.00	EACH		$	
0740	21969NN		BEARING REPLACEMENT REPLACE, BEARING PAD, MASONRY PLATE, AND ANCHOR BOLTS	116.00	EACH		$	
0750	21969NN		BEARING REPLACEMENT ROCKER REPLACEMENT	42.00	EACH		$	

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PROPOSAL BID ITEMS

Report Date 4/26/17

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0760	21969NN		BEARING REPLACEMENT TOP PLATE REPLACEMENT	13.00	EACH		$	
0770	22146EN		CONCRETE PATCHING REPAIR	575.00	SQFT		$	
0780	23055N		REMOVE REMOVE VEGETATION	1.00	LS		$	
0790	23853EC		BEARING REPAIR CLEAN AND PAINT	116.00	EACH		$	
0800	23911EC		GROUT	.10	CUYD		$	
0810	24662EC		CLEAN CLEAN CATCH BASIN	2.00	EACH		$	
0820	24879EC		STEEL REPAIR DIAPHRAGM CRACK REPAIR	43.00	EACH		$	
0830	24898EC		ALIGN CRIB WALL HEADER	3.00	EACH		$	

Section: 0003 - BRIDGE - OHIO APPROACH

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0840	03297		EXPAN JOINT REPLACE 3 IN	316.00	LF		$	
0850	03298		EXPAN JOINT REPLACE 4 IN	315.10	LF		$	
0860	23034EN		EXPANSION JOINT REPLACE-5 IN	156.30	LF		$	
0870	24879EC		STEEL REPAIR BEARING STIFFENER RETROFIT	1.00	EACH		$	
0880	24879EC		STEEL REPAIR CROSSFRAME STIFFENER WELDING	216.00	EACH		$	
0890	24879EC		STEEL REPAIR STEEL WEB CRACK RETROFIT	5.00	EACH		$	

Section: 0004 - TRAFFIC LOOPS

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0900	04793		CONDUIT-1 1/4 IN	210.00	LF		$	
0910	04795		CONDUIT-2 IN	20.00	LF		$	
0920	04811		ELECTRICAL JUNCTION BOX TYPE B	3.00	EACH		$	
0930	04820		TRENCHING AND BACKFILLING	220.00	LF		$	
0940	04829		PIEZOELECTRIC SENSOR	22.00	EACH		$	
0950	04830		LOOP WIRE	2,400.00	LF		$	
0960	04895		LOOP SAW SLOT AND FILL	820.00	LF		$	
0970	20359NN		GALVANIZED STEEL CABINET	1.00	EACH		$	
0980	20360ES818		WOOD POST	6.00	EACH		$	
0990	20468EC		ELECTRICAL JUNCTION BOX-10 X 8 X 4	2.00	EACH		$	

Section: 0005 - MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1000	02568		MOBILIZATION	1.00	LS		$	
1010	02569		DEMOBILIZATION	1.00	LS		$	