

CALL NO. <u>100</u> CONTRACT ID. <u>251013</u> JEFFERSON COUNTY FED/STATE PROJECT NUMBER <u>NHPP 0711(096)</u> DESCRIPTION <u>I-71 WIDENING</u> WORK TYPE <u>GRADE, DRAIN & SURFACE WITH BRIDGE</u> PRIMARY COMPLETION DATE <u>9/30/2027</u>

LETTING DATE: July 24,2025

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME July 24,2025. 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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SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 05

CONTRACT ID - 251013

NHPP 0711(096)

COUNTY - JEFFERSON

PCN - DE05600712513 NHPP 0711(096)

I-71 WIDENING (MP 0.000) ADDITION OF NB AND SB AUXILIARY LANES ON I-71 NEAR KENNEDY INCLUDING OPERATIONAL IMPROVEMENTS TO THE ZORN INTERCHANGE (MP 2.500), A DISTANCE OF 02.50 MILES.GRADE, DRAIN & SURFACE WITH BRIDGE SYP NO. 05-00048.10.

GEOGRAPHIC COORDINATES LATITUDE 38:16:14.00 LONGITUDE 85:42:14.00 ADT

COMPLETION DATE(S):

COMPLETED BY 09/30/2027 APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

INSURANCE

Refer to Kentucky Standard Specifications for Road and Bridge Construction, current edition.

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 electronic bidding software. 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.

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 <u>KRS 14A.9-010</u> to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under <u>KRS 14A.9-030</u> 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 <u>KRS 14A.9-010</u>, the foreign entity should identify the applicable exception. Foreign entity is defined within <u>KRS 14A.1-070</u>.

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 <u>https://secure.kentucky.gov/sos/ftbr/welcome.aspx</u>.

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 email to <u>kytc.projectquestions@ky.gov</u>. 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 (<u>www.transportation.ky.gov/construction-procurement</u>). 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 state agency certifies that it is in compliance with the provisions of KRS 45A.150, "Access to contractor's books, documents, papers, records, or other evidence directly pertinent to the contract." The Contractor, as defined in KRS 45A.030, 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 agreement for the purpose of financial audit or program review. 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. Records and other prequalification information confidentially disclosed as part of the bid process shall not be deemed as directly pertinent to the agreement and shall be exempt from disclosure as provided in KRS 61.878(1)(c).

BOYCOTT PROVISIONS

If applicable, the contractor represents that, pursuant to <u>KRS 45A.607</u>, they are not currently engaged in, and will not for the duration of the contract engage in, the boycott of a person or an entity based in or doing business with a jurisdiction with which Kentucky can enjoy open trade. **Note:** The term Boycott does not include actions taken for bona fide business or economic reasons, or actions specifically required by federal or state law.

If applicable, the contractor verifies that, pursuant to KRS 41.480, they do not engage in, and will not for the duration of the contract engage in, in energy company boycotts as defined by KRS 41.472.

LOBBYING PROHIBITIONS

The contractor represents that they, and any subcontractor performing work under the contract, have not violated the agency restrictions contained in <u>KRS 11A.236</u> during the previous ten (10) years, and pledges to abide by the restrictions set forth in such statute for the duration of the contract awarded.

The contractor further represents that, pursuant to <u>KRS 45A.328</u>, they have not procured an original, subsequent, or similar contract while employing an executive agency lobbyist who was convicted of a crime related to the original, subsequent, or similar contract within five (5) years of the conviction of the lobbyist.

Revised: 1/1/2025

05/05/2025

SPECIAL NOTE – BUY AMERICA REQUIREMENTS AND BUILD AMERICA, BUY AMERICA (BABA) ACT______

Follow the "Buy America" provisions as required by 23 U.S.C. § 313 and 23 C.F.R. § 635.410. Except as expressly provided herein all manufacturing processes of steel or iron materials including but not limited to structural steel, guardrail materials, corrugated steel, culvert pipe, structural plate, prestressing strands, and steel reinforcing bars shall occur in the United States of America, including the application of:

- Coating,
- Galvanizing,
- Painting, and
- Other coating that protects or enhances the value of steel or iron products.

The following are exempt, unless processed or refined to include substantial amounts of steel or iron material, and may be used regardless of source in the domestic manufacturing process for steel or iron material:

- Pig iron,
- Processed, pelletized, and reduced iron ore material, or
- Processed alloys.

The Contractor shall submit a certification stating that all manufacturing processes involved with the production of steel or iron materials occurred in the United States.

Produce, mill, fabricate, and manufacture in the United States of America all aluminum components of bridges, tunnels, and large sign support systems, for which either shop fabrication, shop inspection, or certified mill test reports are required as the basis of acceptance by the Department.

Use foreign materials only under the following conditions:

- 1) When the materials are not permanently incorporated into the project; or
- 2) When the delivered cost of such materials used does not exceed 0.1 percent
- of the total Contract amount or \$2,500.00, whichever is greater.

The Contractor shall submit to the Engineer the origin and value of any foreign material used.

2.0 - BUILD AMERICA, BUY AMERICA (BABA)

Contractor shall comply with the Federal Highway Administration (FHWA) Buy America Requirement in 23 C.F.R. § 635.410 and all relevant provisions of the Build America, Buy America Act (BABA), contained within the Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, §§ 70901-52 enacted November 15, 2021. The BABA requires iron, steel, manufactured products, and construction materials used in infrastructure projects funded by federal financial assistance to be produced in the United States. Comply with 2 C.F.R § 184.

BABA permits FHWA participation in the Contract only if domestic steel and iron will be used on the Project. To be considered domestic, all steel and iron used, and all products manufactured from steel and iron must be produced in the United States and all manufacturing processes, including application of a coating, for these materials must occur in the United States. Coating includes all processes that protect or enhance the value of the material to which the coating is applied. This requirement does not preclude a minimal use of foreign steel and iron materials, provided the cost of such materials does not exceed 0.1% of the total contract amount under the Contract or \$2,500.00 whichever is greater.

BABA permits FHWA participation in the Contract only if all "construction materials" as defined in the Act are made in the United States. The Buy America preference applies to the following construction materials incorporated into infrastructure projects: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); Fiber optic cable; optical fiber; lumber; engineered wood; and drywall. Contractor will be SPECIAL NOTE – BUY AMERICA REQUIREMENTS AND BUILD AMERICA, BUY AMERICA (BABA) ACT______

required to use construction materials produced in the United States on this Project. The Contractor shall submit a certification stating that all construction materials are certified to be BABA compliant.

3.0 FINAL RULE – FHWA'S BUY AMERICA REGULATION TO TERMINATE GENERAL APPLICABILITY WAIVER FOR MANUFACTURED PRODUCTS

- March 17, 2025 (effective date): For all Federal-aid projects obligated on or after March 15, 2025, all iron or steel products, as defined in § 635.410(c)(1)(iii), must comply with FHWA's Buy America requirements for steel and iron in § 635.410(b). In addition, for all Federal-aid projects obligated on or after March 15, 2025, per § 635.410(c)(2), articles, materials, and supplies should be classified as an iron or steel product, a manufactured product, or another product as specified by law or in 2 CFR part 184 (such other products specified by law or in 2 CFR part 184 (such other products specified by law or in 2 CFR part 184 include "excluded materials" and "construction materials"); an article, material, or supply must not be considered to fall into multiple categories.
- October 1, 2025: The final assembly requirement will become effective for Federal-aid projects obligated on or after October 1, 2025. This means that, for manufactured product to be Buy America compliant, for Federal-aid projects obligated on or after October 1, 2025, final assembly of the manufactured product must occur in the United States.
- October 1, 2026: The 55 percent requirement will become effective for Federal-aid projects obligated on or after October 1, 2026. This means that, for manufactured product to be Buy America-compliant, for Federal-aid projects obligated on or after October 1, 2026, all manufactured products permanently incorporated into the project must both be manufactured in the United States (satisfy the final assembly requirement) and have the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States be greater than 55 percent of the total cost of all components of the manufactured product (satisfy the 55 percent requirement).

4.0 – ADDITIONAL REQUIREMENTS

The Contractor has completed and submitted, or shall complete and submit, to the Cabinet a Buy America/ Build America, Buy America Certificate prior to the Cabinet issuing the notice to proceed, in the format below. After submittal, the Contractor is bound by its original certification.

A false certification is a criminal act in violation of 18 U.S.C. § 1001. The Contractor has the burden of proof to establish that it's in compliance.

At the Contractor's request, the Cabinet may, but is not obligated to, seek a waiver of Buy America requirements if grounds for the waiver exist under 23 C.F.R. § 635.410(c) or will comply with the applicable Buy America requirements if a waiver of those requirements is not available or not pursued by the Cabinet.

Please refer to the Federal Highway Administration's Buy America webpage for more information.

<u>Buy America - Construction Program Guide - Contract Administration - Construction - Federal Highway</u> <u>Administration (dot.gov)</u>

Effective - June 26, 2025, Letting

SPECIAL NOTE – BUY AMERICA REQUIREMENTS AND BUILD AMERICA, BUY AMERICA (BABA) ACT______

05/05/2025

BUY AMERICA / BUILD AMERICA, BUY AMERICA (ACT) MATERIALS CERTIFICATE OF COMPLIANCE

The Contractor hereby certifies that it will comply with all relevant provisions of the Build America, Buy America Act, contained within the Infrastructure Investment and Jobs Act, Pub. L. NO. 117-58, §§ 70901-52, the requirements of 23 U.S.C. § 313, 23 C.F.R. § 635.410 and 2 C.F.R § 184.

Date Submitted:

Contractor:_____

Signature:_____

Printed Name:_____

Title:_____

NOTE: THIS CERTIFICATION IS IN ADDITION TO ANY AND ALL REQUIREMENTS OUTLINED IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND/OR SPECIAL NOTES CONTAINED IN THE PROJECT PROPOSAL.

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 Rating102.13 Irregular Bid Proposals102.09 Proposal Guaranty

102.08 Preparation and Delivery of Proposals

102.14 Disqualification of Bidders

CIVIL RIGHTS ACT OF 1964

The Kentucky Transportation Cabinet, Department of Highways, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, disability, income- level, or Limited English Proficiency (LEP)in consideration for an award.

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 are acceptable per Section 108.01 of the Standard Specifications for Road and Bridge Construction. S u b - Contractors fulfilling a disadvantaged business enterprise goal on a project may enter into a 2^{nd} tier subcontract with a Non-DBE Subcontractor. However, in this instance, none of the work subcontracted to the Non-DBE Contractor will count toward fulfilling the established Disadvantaged Goal for the project.

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 <u>will not</u> 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."

<u>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.</u>

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 Proposal Line Number, 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.

AFTER PROJECT AWARD AND BEFORE NOTICE TO PROCEED/WORK ORDER IS ISSUED (SEE SECTION 103.06, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

Prime Contractors awarded a federally funded project with a DBE Goal greater than zero will be required to submit a fully executed DBE Subcontract, along with the attached FHWA 1273 and Certificate of Liability Insurance for each DBE Firm submitted as part of the previously approved DBE Utilization Plan (TC 14-35). A signed quote or purchase order shall be attached when the DBE subcontractor is a material supplier or broker.

The Certificate of Liability Insurance submitted must meet the requirements outlined in Section 107.18 of the Standard Specifications for Road and Bridge Construction.

Changes to <u>APPROVED</u> DBE Participation Plans must be approved by the Office for Civil Rights & Small Business Development. 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 (hard copy along with an electronic copy) of this information must be received in 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 Disadvantaged Enterprise Business Liaison Officer (DEBLO) in the Office for Civil Rights and Small Business Development 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 out 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:

- Suspension of Prequalification;
- 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 and Non-DBE Subcontractors 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 <u>signed and notarized</u> Affidavit of Subcontractor Payment (<u>TC 18-7</u>) and copies of checks for any monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal. These documents must be completed and signed within 7 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.

****** **IMPORTANT** ******

Please mail the original, signed and completed TC (18-7) Affidavit of Subcontractor Payment form and all copies of checks for payments listed above to the following address:

Office for Civil Rights and Small Business Development 6th Floor West 200 Mero Street Frankfort, KY 40622

The prime contractor should notify the KYTC Office for Civil Rights and Small Business Development seven (7) days prior to DBE contractors commencing work on the project. The contact in this office is Mr. Tony Youssefi. Mr. Youssefi's current contact information is email address – tyousseffi@ky.gov and the telephone number is (502) 564-3601.

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.

PROHIBITION ON TELECOMMUNICATIONS EQUIPMENT OR SERVICES

In accordance with the FY 2019 National Defense Authorization Act (NDAA), 2 CFR 200.216, and 2 CFR 200.471, Federal agencies are prohibited, after August 13, 2020, from obligating or expending financial assistance to obtain certain telecommunications and video surveillance services and equipment from specific producers. As a result of these regulations, contractors and subcontractors are prohibited, on projects with federal funding participation, from providing telecommunication or video surveillance equipment, services, or systems produced by:

- Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities)
- Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities)

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.

ASPHALT MIXTURE

Unless otherwise noted, the Department estimates the rate of application for all asphalt mixtures to be 110 lbs/sy per inch of depth.

DGA BASE

Unless otherwise noted, the Department estimates the rate of application for DGA Base to be 115 lbs/sy per inch of depth.

DGA BASE FOR SHOULDERS

Unless otherwise noted, the Department estimates the rate of application for DGA Base for Shoulders to be 115 lbs/sy per inch of depth. The Department will not measure necessary grading and/or shaping of existing shoulders prior to placing of DGA Base, but shall be incidental to the Contract unit price per ton for DGA Base.

Accept payment at the Contract unit price per ton as full compensation for all labor, materials, equipment, and incidentals for grading and/or shaping of existing shoulders and furnishing, placing, and compacting the DGA Base.

INCIDENTAL SURFACING

The Department has included in the quantities of asphalt mixtures established in the proposal estimated quantities required for resurfacing or surfacing mailbox turnouts, farm field entrances, residential and commercial entrances, curve widening, ramp gores and tapers, and road and street approaches, as applicable. Pave these areas to the limits as shown on Standard Drawing RPM-110-06 or as directed by the Engineer. In the event signal detectors are present in the intersecting streets or roads, pave the crossroads to the right of way limit or back of the signal detector, whichever is the farthest back of the mainline. Surface or resurface these areas as directed by the Engineer. The Department will not measure placing and compacting for separate payment but shall be incidental to the Contract unit price for the asphalt mixtures.

FUEL AND ASPHALT PAY ADJUSTMENT

The Department has included the Contract items Asphalt Adjustment and Fuel Adjustment for possible future payments at an established Contract unit price of \$1.00. The Department will calculate actual adjustment quantities after work is completed. If existing Contract amount is insufficient to pay all items on the contract with the adjustments, the Department will establish additional monies with a change order.

ASPHALT PAVEMENT RIDE QUALITY CATEGORY A

The Department will apply Pavement Rideability Requirements on this project in accordance with Section 410, Category A.

OPTION A

Be advised that the Department will accept compaction of asphalt mixtures furnished for driving lanes and ramps, at 1 inch (25mm) or greater, on this project according to OPTION A in accordance with Section 402 and Section 403 of the current Standard Specifications. The Department will require joint cores as described in Section 402.03.02 for surface mixtures only. The Department will accept compaction of all other asphalt mixtures according to OPTION B.

Special Note for Fixed Completion Date and Liquidated Damages

I-71 JEFFERSON COUNTY ITEM NO. 5-48.10

FIXED COMPLETION DATE

Specified fixed completion date for this contract is **September 30, 2027**. For each calendar day beyond a fixed completion date of September 30, 2027, the Department will assess liquidated damages per Section 108.09 of the current edition of the Standard Specifications for Road and Bridge Construction.

LIQUIDATED DAMAGES

Additionally, Liquidated Damages will be charged for each hour or portion of an hour that a Mainline I-71 lane closure that reduces traffic to one lane is in place during times restricted in the Project Phasing and Construction Procedures. This does not include the allowable 30 day lane closure during Phase 2 in which I-71 is reduced to one lane in each direction. For the first hour that traffic is reduced to one lane during times prohibited in the Project Phasing and Construction Procedures, a penalty of **\$7,500** will be assessed for the first 15 minutes traffic is reduced to one lane, an additional penalty of **\$2,500** will be assessed for the 3rd 15 minutes traffic is reduced to one lane, and an additional penalty of **\$2,500** will be assessed for the final 15 minutes of the first hour traffic is reduced to one lane. A penalty of **\$7,500** per hour, per lane closure, will be assessed for the second hour, or portion of an hour, and all successive hours, or portion of an hour, that traffic is reduced to one lane during times prohibited in the Project Phasing and Construction Procedures.

See the Project Phasing and Construction Procedures in the Traffic Control Plan for details on times and dates that lane closures that reduce traffic to one lane are prohibited.

Liquidated Damages and other penalties, including penalties for lane closures that reduce traffic to one lane during restricted times, and penalties for road closures in place but not in compliance with the Project Phasing and Construction Procedures will be applied cumulatively and concurrently.

Contrary to Section 108, liquidated damages and other penalties will be charged during the months of December through March and charged for each Calendar Day any work remains incomplete regardless of seasonal, temperature, or weather limitations.

SPECIAL NOTE FOR ARCHITECTURAL TREATMENT

1.0 DESCRIPTION. This work consists of constructing textured surfaces simulating natural cut stone masonry as designated in the Plans or Contract Documents to receive Architectural Treatment. The work shall be performed in accordance with the applicable provisions of the Standard Specifications, the Plans, and as described herein.

2.0 FORMED TEXTURED SURFACES. Where Architectural Treatment is designated, concrete surfaces shall be formed using a form lining system made of high-strength urethane elastomer, or thermoformed rigid polymer materials capable of withstanding anticipated concrete pore pressures without leakage or causing physical defects. Formliners shall attach easily to forms and be removable without causing concrete surface damage. The liners shall be designed to form surfaces conforming to the design intent including the shape, lines and dimensions described herein and in the Plans.

Formliners shall be a Cut Ashlar Stone Pattern with simulated stone sizes shown in the Plans and shall produce the textured effect of a realistic, cut stone masonry surface. Simulated stone surfaces should exhibit the rough, natural finish of real stone laid in place and have a maximum surface relief of no more than 1.5 inches. Stone surfaces will be set in surface elevations as detailed in the drawings. Simulated stone surfaces having a smooth, slick or shiny surface will be rejected. Individual stones shall be formed with crisp, sharp edges and have a rough natural relief to the shape and dimensions described herein and shown on approved shop drawings.

4.0 SUBMITTALS. The Contractor shall submit the following to the Owner/Engineer for approval:

- 1. <u>Product data</u> including manufacturer's technical information and use instructions for formliner placement and release.
- 2. Actual <u>samples</u> of form ties that will be used with work requiring architectural treatment.
- 3. <u>Qualification data</u> for firms and person specified below under Quality Assurance to demonstrate their capabilities and experience. Include a list of completed projects with project names, addresses, and names of architects, engineers and owners, plus any other pertinent information.
- 4. <u>Shop drawings</u> indicating formliner layout and termination details. Indicate backup, rustication, reveal, and chamfer strip locations. Include jointing, form tie location, pattern placement, pattern match details, and end, edge and other special conditions. Indicate tolerances and procedure of installation and separation.

After approval of shop drawings by the Owner/Engineer and prior to commencement of production, the Contractor shall submit the following to the Owner/Engineer for approval:

1. <u>Test Panel Mock-ups</u> as specified below under Quality Assurance.

5.0 QUALITY ASSURANCE.

- 1. <u>Manufacturer's Qualifications</u>: The formliner manufacturer must have a minimum of five year's experience making liners used to create formed concrete surfaces matching natural stone shapes and textures.
- 2. <u>Installer Qualifications</u>: The formliner installer shall have had a minimum of three consecutive years of experience in textured formed concrete construction.
- 3. <u>Test Panel Mock-up</u>: Provide a full-scale mock-up (5'x5' minimum panel size) using actual job specific materials, methods and workmanship. These include concrete mix [cement type, aggregate gradation, slump, water/cement ratios, plasticizers, and additives], forming system [ties, liner, and formwork], form release agents, placement rate, form pressures, joint sealing, vibrating and stripping practices. In addition, demonstrate patching and repair procedures for spalled concrete, and voids caused by honeycombing or bugholes. Incorporate formwork accessories, a minimum one vertical and one horizontal form liner joint, form liner corner matching technique, and coping details. Accepted mock-up will be the standard by which remaining work will be evaluated for technical and aesthetic merit. Accepted mock-up is a prerequisite to beginning job formwork. Submit variations from mock-up materials or techniques for approval prior to use.
- 4. <u>Coordination</u>: Coordinate and combine mock-up with related technique mock-up requirements insofar as practical.

Following completion of the structure, remove and dispose of the test panels in accordance with the Specifications.

Test panels shall be considered incidental to the work and no direct compensation will be made theretofore.

6.0 CONSTRUCTION REQUIREMENTS. Match pattern features at formliner joints to make the formed concrete surface appear uniform and continuous without grout leakage at the joints. When concrete vertical and horizontal construction joints are required, place formliner joints in the valley of the grooves, or as approved by the Owner/Engineer. Pour concrete at a rate and lift depth such that the pressure exerted by the wet concrete on the formwork, as determined using ACI 347R-14 "Guide to Formwork for Concrete", does not exceed formliner manufacturer's recommendations and in no case exceeds 1000 psi. Following removal of forms, finish improperly formed joints to achieve a smooth and uniform cast concrete surface. No visible vertical and horizontal seams or conspicuous form marks created by butt-joining formliners will be allowed. Where it is not possible to locate a vertical or horizontal groove at a construction joint, the concrete surface shall be finished to reduce visibility of the construction joints.

Strip formwork in accordance with the formliner manufacturer's recommendations to avoid concrete surface deterioration or weakness planes in the substrate. Finish form tie holes in accordance with the Specifications using approved patching materials.

Clean and repair surfaces of formliners to be re-used. Split, frayed, delaminated or otherwise damaged formliner material will not be acceptable for exposed surfaces. Formliners

shall be cleaned and free of concrete buildup prior to each pour. Do not use "patched" forms for exposed concrete surfaces unless they are acceptable to the Owner/Engineer.

6.0 MEASUREMENT. All items of work necessary to construct architectural treatment as specified in this Note shall be considered incidental to the unit price bid for Sound Barrier Wall.

7.0 PAYMENT. Payment for Sound Barrier Wall includes full compensation for furnishing all labor, equipment, materials, and incidental items necessary to construct the architectural treatment in accordance with the Plans, Specifications, other Contract Documents, and this Special Note.

SPECIAL NOTE FOR CONCRETE SEALING

These Notes or designated portions thereof, apply where so indicated on the plans, proposals or bidding instruction.

I. **DESCRIPTION.** Perform all work in accordance with the Department's 2019 Standard Specifications, and applicable Supplemental Specifications, the attached sketches, and these Notes. Section references are to the Standard Specifications. This work consists of: (1) Furnish all labor, materials, tools, and equipment; (2) Clean

This work consists of: (1) Furnish all labor, materials, tools, and equipment; (2) Clean the bridge deck; (3) Seal the bridge deck; (4) Maintain & control traffic; and, (5) Any other work specified as part of this contract.

II. MATERIALS.

A. Sealer. Use one of the following:

| Product | Supplier | |
|---------------------------|---------------------------------------|--|
| Protectosil BHN | Evonik Industries | |
| Protectosil 300S | Evonik Industries | |
| TK-590-40 Tri-Silane 40% | TK Products | |
| SW-244-100 | Chemical Products Industries, Inc. | |
| TK-590-1 MS Tri-Silane | TK Products | |
| MasterProtect H1000 | BASF | |
| Aquanil Plus 40 | ChemMasters | |
| SIL-ACT ATS-100 | Advanced Chemical Technologies | |
| Certivex Penseal BTS 100% | Vexcon | |
| Pentreat 244-40 | W.R. Meadows | |
| Aquanil Plus 40A | ChemMasters | |

B. Coverage Rate: Follow all manufacturers recommendations for coverage rates except the application rate must not exceed the square footage coverage rate per gallon of sealer as given in the chart below. If the manufacturer recommends a coverage rate greater than given in the table below, apply sealer at the rate given in the table below for the chosen sealers silane percentage.

| % Silane | Coverage rate (ft ² /gallon) | |
|----------|---|--|
| 100 | 300 | |
| 40 | 120 | |
| 20 | 60 | |

III. CONSTRUCTION.

- A. Curing Compound. Contrary to Section 609.03.12 of the specifications, curing compound is not to be used on this deck due to potentially causing issues with the concrete sealer. During the deck pour, finishing, and tining operations the Class AA concrete shall be kept continuously moist with the use of a mister until burlap or curing blankets are applied to the surface. At no point should water be pooling or running off the surface or the surface of the concrete be allowed to become dry. After the burlap or curing blankets are installed, cure in accordance with the specifications. Include all costs in the unit price bid for Class AA concrete. Failure to properly cure the concrete in accordance with this note and the specifications may result in weakened or cracked concrete. If the concrete is weakened or cracked due to improper curing, the contractor will be responsible for providing alternates to fix the issues to the Engineer for review and the contractor will be solely responsible for all costs to do so, up to complete replacement. Do not begin any construction on fixing any issues without approval of the Engineer.
- **B.** Contract Time. Concrete Sealing may need to be installed after contract time has elapsed in a separate mobilization and after the Engineer has declared the project otherwise complete. Liquidated damages shall not be charged provided Concrete Sealing is complete within 60 days after the last concrete pour on the structure. When the Contractor has not completed Concrete Sealing within the time frame allotted, Liquidated Damages shall be charged at 25 percent of the original contract daily charge from the expiration of the time allowed until the Contractor completes the work except the Department will not deduct liquated damages when weather limitations prohibit the Contractor from performing the work.
- **C. Cleaning the Deck.** Dry clean the deck to remove all loose debris. Remove all visible hydrocarbons from the surface with detergent approved by the manufacturer of the deck sealant. Pressure wash all surfaces to be sealed at 2000 to 3000 psi. Install pressure gauges at each wand to verify pressure. Use 30° fan tip or as recommended by the

manufacturer of the deck sealant. Hold pressure washing wand a minimum of 45° from the deck with a maximum stand-off distance of 12 inches.

- **D. Sealing the Deck.** Allow new concrete to cure a minimum 28 days prior to application of sealer. Monitor weather conditions prior to sealer application. Refer to manufacturer's recommendations for proper ambient conditions. Do not apply sealer if precipitation is anticipated within the time stated by the manufacturer. Allow the deck to dry 24 hours (after washing or rain event) before sealer application. The deck can be reopened to traffic while drying. Sealer must be applied within 48 hours of washing or the deck must be rewashed. Divide the deck into predefined areas of specific square footage to aid in determining usage. Comply with manufacturer's usage recommendation. Using a low pressure pump, apply sealer and spread evenly with broom or squeegee; do not allow pooling to remain. When each predefined area is complete, measure the amount of sealer used to verify proper usage. After sealing, follow manufacturer's recommended cure time before opening to traffic. On vertical surfaces, apply the sealer in a flooding application from the bottom up, so the material runs down 6 to 8 inches below the spray pattern.
- **E. Inspection:** Monitor all aspects of the project to assure compliance to this specification. Observe and document general conditions during the entirety of the project. Verify that each phase of work has been satisfactorily completed prior to beginning the next phase. Phases are described as follows:
 - 1. Dry cleaning to remove loose debris, verify and document:
 - a. All debris has been removed and disposed of properly.
 - 2. Removal of hydrocarbons, verify and document:
 - a. The manufacturer's recommended detergent is used for removal.
 - b. Hydrocarbons have been satisfactorily removed.
 - 3. Pressure washing, verify and document:
 - a. Washing pressure at the wand.
 - b. Tip size used.
 - c. Wash angle and stand-off distance.
 - d. The deck is satisfactorily cleaned.
 - 4. Sealer application, verify and document:
 - a. Proper cure time for new concrete.
 - b. Deck surface is dry.
 - 1. Document time since washed.
 - 2. Was deck opened to traffic after washing?
 - c. Ambient conditions.
 - 1. Document ambient temperature, surface temperature, relative humidity, and dew point.
 - d. Application and distribution method.
 - e. Coverage to be complete and even.
 - f. Material is not allowed to remain pooled.
 - g. Monitor material usage.

h. No traffic until proper cure time is allowed.

IV. MEASUREMENT

- A. Concrete Sealing. The Department will measure the quantity per square feet of each area sealed.
- **B. Mobilization For Concrete Surface Treatment.** The Department will pay the lump sum bid for an additional mobilization when Concrete Sealing must be performed after the Engineer has deemed the project complete except for Concrete Sealing, structure is opened to traffic, and Contractor has fully demobilized.

V. PAYMENT

- A. 23378EC Concrete Sealing Sq. Ft. Payment at the contract unit price per square feet is full compensation for the following: (1) Furnish all labor, materials, tools, and equipment; (2) Clean the bridge deck; (3) Seal the bridge deck; (4) Maintain & control traffic; and, (5) Any other work specified as part of this contract.
- B. 26233EC Mobilization For Concrete Surface Treatment L.S. Payment at the contract lump sum price bid shall be full compensation for the Contractor to remobilize on the project to perform Concrete Sealing as detailed herein this special note.

SPECIAL NOTE FOR EMBEDDED GALVANIC ANODES TYPE 1A

Galvashield XPX or approved equal – Anode Type 1A Class C-Galvanic anodes embedded within concrete repairs to provide corrosion control.

PART 1 GENERAL

- 1.1 Related Documents
 - A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 Summary

- A. This Section includes furnishing all labor, tools, materials, equipment and services necessary to properly install embedded galvanic anodes.
- B. Embedded galvanic anodes are designed to provide localized corrosion protection. When placed at the appropriate spacing along the perimeter of concrete repairs or along the interface between new/existing concrete, the anodes mitigate corrosion and the formation of new corrosion sites in the adjacent existing concrete.

1.3 References

- A. ACI Repair Application Procedure (RAP) Bulletin 8 Installation of Embedded Galvanic Anodes
- B. ACI Guideline No. 222 Corrosion of Metals in Concrete
- C. ACI 562 Code Requirements for Evaluation, Repair and Rehabilitation of Concrete Buildings
- D. ASTM B418– Standard Specification for Cast and Wrought Galvanic Zinc Anodes
- E. ICRI Guideline 310.1R Guide for Surface Preparation for the Repair of Deteriorated Concrete resulting from Reinforcing Steel Corrosion
- F. ISO 12696 Cathodic Protection of Steel in Concrete
- 1.4 Anode Manufacturer Corrosion Technician
 - A. The contractor will enlist and pay for a technical representative employed by the galvanic anode manufacturer to provide training and on-site technical assistance during the initial installation of the galvanic anodes. The technical representative shall be a NACE-qualified corrosion technician (NACE CP2 Cathodic Protection Technician or higher).
 - B. The qualified corrosion technician shall have verifiable experience in the installation and testing of embedded galvanic protection systems for reinforced concrete structures.

C. The contractor shall coordinate its work with the designated corrosion technician to allow for site support during project startup and initial anode installation. The corrosion technician shall provide contractor training and support for development of application procedures, verification of electrical continuity, and project documentation.

PART 2 PRODUCTS

2.1 Embedded Galvanic Anodes

Embedded galvanic anodes shall be Anode Type 1A Class C with the following nominal dimensions: $33 \times 35 \times 170$ mm ($1.3 \times 1.38 \times 6.69$). The anodes shall be pre-manufactured with zinc in compliance with ASTM B418 Type II cast around an integral, unspliced, uncoated, non-galvanized double loop steel tie wire and encased in a highly alkaline cementitious shell with a pH of 14 or greater.

The galvanic anodes shall be alkali-activated and shall contain no intentionally added chloride, bromide or other constituents that are corrosive to reinforcing steel as per ACI 562.

Embedded galvanic anodes shall be Galvashield[®] XPX available from Vector Corrosion Technologies or approved equal.

Application for approved equals shall be requested in writing two weeks before submission of project bids. Application for galvanic anode approved equals shall include verification of the following information:

- 1. The zinc anode is alkali-activated with an alkaline cementitious shell with a pH of 14 or greater.
- 2. The galvanic anode shall contain no intentionally added constituents which are corrosive to reinforcing steel, e.g. chloride, bromide, etc.
- 3. The galvanic anode shall have documented test results from field installations showing that the anodes have achieved a minimum of 10 years in service.
- 4. The anode manufacturer shall provide third party product evaluation, such as from Concrete Innovations Appraisal Service, BBA, etc.

2.2 Repair Materials

- A. Use an ionically conductive, cement-based repair mortar or concrete. Nonconductive repair materials such as epoxy, urethane, or magnesium phosphate shall not be permitted. Insulating materials such as epoxy bonding agents shall not be used unless otherwise called for in the design.
- 2.3 Storage

Deliver, store, and handle all materials in accordance with manufacturer's instructions. Anode units shall be stored in dry conditions in the original unopened containers in a manner to avoid exposure to extremes of temperature and humidity.

PART 3 EXECUTION

- 3.1 Concrete Removal
 - A. Remove loose or delaminated concrete.
 - B. Undercut all exposed reinforcing steel by removing concrete from the full circumference of the steel as per ICRI R310.1R. The minimum clearance between the concrete substrate and reinforcing steel shall be ³/₄ inch (19 mm) or ¹/₄ inch (6 mm) larger than the top size aggregate in the repair material, whichever is greater.
 - C. Concrete removal shall continue along the reinforcing steel until no further delamination, cracking, or significant rebar corrosion exists and the reinforcing steel is well bonded to the surrounding concrete as per ICRI R310.1R.
- 3.2 Cleaning and Repair of Reinforcing Steel
 - A. Clean exposed reinforcing steel of rust, mortar, etc. to provide sufficient electrical connection and mechanical bond.
 - B. If significant reduction in the cross section of the reinforcing steel has occurred, replace or install supplemental reinforcement as directed by the engineer of record.
 - C. Secure loose reinforcing steel by tying tightly to other bars with steel tie wire.
 - D. Verify electrical continuity of all exposed reinforcing steel, including supplemental steel, as per Section 3.4.E.
 - E. If the reinforcing steel is to receive a barrier coating, do not coat the reinforcing steel within 1 in. (25mm) of the anode and do not apply coating to any surface of the anode or the steel tie wires.
- 3.3 Edge and Surface Conditioning of Concrete
 - A. Concrete repairs shall be square or rectangular in shape with squared corners per ICRI Guideline 310.1R.
 - B. Saw cut the repair boundary ¹/₂ inch (13 mm) deep or less if required to avoid cutting reinforcing steel.
 - C. Create a clean, sound substrate by removing bond-inhibiting materials from the concrete substrate by high pressure water blasting or abrasive blasting.
- 3.4 Galvanic Anode Installation
 - A. Install anode units and repair material immediately following preparation and cleaning of the steel reinforcement.
 - B. Galvanic anodes shall be installed at a maximum spacing of 15 in. as shown in the plans.
 - C. Place the galvanic anodes as close as possible to the interface with the parent concrete [maximum 4 in. (100mm)] while still providing sufficient clearance between anodes and substrate to allow the repair material to fully encase the anode.

- 1. If bar fit grooves are provided, place the anode such that the groove fits along a single bar or at the intersection between two bars and secure to each clean bar.
- 2. If less than 1 in. (25 mm) of concrete cover is expected, place anode beneath the bar and secure to clean reinforcing steel or increase the size of the repair cavity to accommodate the anodes.
- D. Wrap the tie wires around the clean reinforcing steel at least one full turn in opposite directions and bring the two free ends together and twist tight to create a secure electrical connection that will not allow anode movement during concrete placement.
- E. Electrical Continuity
 - 1. Confirm electrical connection between anode tie wire and reinforcing steel by measuring DC resistance (ohm Ω) or DC potential (mV) with a multimeter. Electrical connection is acceptable if the DC resistance measured with the multi-meter is 1 Ω or less or the DC potential is 1 mV or less.
 - 2. Confirm electrical continuity of the exposed reinforcing steel within the repair area. Electrical continuity shall be established by tying discontinuous steel to continuous steel using steel tie wire when necessary. Electrical continuity within the repair area is acceptable if the DC resistance measured with multi-meter is 1 Ω or less or the potential is 1 mV or less.
- 3.5 Concrete or Mortar Replacement
 - A. If the repair procedures require the concrete surface to be saturated with water, do not damage the anode nor allow the anode units to be soaked for greater than 20 minutes.
 - B. Complete the repair with the repair material, taking care not to damage, loosen or leave voids around the anode.

SPECIAL NOTE FOR EPOXY INJECTION CRACK REPAIR

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highways current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the Contract Documents. Section references are to the Standard Specifications.

This work consists of the following:

- 1. Furnish all labor, materials, tools, equipment, and incidental items necessary to complete the work.
- 2. Provide safe access to the bridge, in accordance with Section 107.01.01, for the Engineer to sound possible repair areas and for workers to complete the construction.
- 3. Drill injection port holes.
- 4. Epoxy injection.
- 5. Finish the repaired surface.
- 6. Obtain core samples for the Engineer's visual inspection.
- 7. Repair core holes.
- 8. Any other work specified as part of this contract.

II. MATERIALS, EQUIPMENT, PERSONNEL

- **A. Type IV Epoxy Resin.** Use either Category I or II suitable for epoxy injection applications. See Section 826. All cracks shall be injected using an adhesive suitable for the field conditions (crack width, temperature, humidity, etc.) recommended by the adhesive manufacture as shown on material data sheets.
- **B. Equipment.** Equipment used to inject the epoxy shall meet the recommendations of the epoxy injection material manufacturer.
- **C. Personnel.** Arrange to have a manufacturer's representative at the job site to familiarize him and the Engineer with the epoxy materials, application procedures and recommended pressure practice. The representative shall direct at least one complete crack or area injection and be assured prior to his departure from the project that the personnel are adequately informed to satisfactorily perform the remaining repairs.

Furnish the Engineer a copy of the manufacturer's comprehensive preparation, mixing and application instructions which have been developed especially for use with the proposed epoxy injection system. Ensure that any significant changes to these instructions which are recommended by the representative for an unanticipated situation have been approved by the Engineer prior to the adoption of such changes.

III. CONSTRUCTION

- A. Investigate Remedial Action. If the crack is larger than or equal to 0.025" wide or has rust stains, repair the crack by epoxy injection. If the crack is less than 0.025" wide, the crack shall be sealed in accordance with the Special Note for Concrete Sealing. Areas of map cracking are to be sounded by the Engineer with a hammer. If the areas are delaminated or spalled, they shall be repaired in accordance with the Special Note for Concrete Patching. Otherwise, the cracks shall be repaired in accordance with this Note.
- **B.** Drill Injection Port Holes. Install injection ports or tees in cracks to be injected. Space injection ports or tees at 6 to 12 inches vertically and 6 to 18 inches horizontally but in no case closer together than the thickness of the concrete member if full depth penetration is desired unless otherwise specified or directed. Set ports or tees in dust free holes made either with vacuum drills or chipping hammers.
- **C. Epoxy Injection.** Seal all surface cracks in the area to be repaired, after injection ports or tees have been inserted into the holes, with paste epoxy between ports to insure retention of the pressure injection within the confines of the member. An alternate procedure of sealing the cracks before the injection holes have been made can be submitted to the Engineer for approval. Limit the application of paste epoxy to clean and dry surfaces. Limit substrate temperatures to not less than 45°F during epoxy applications.

Begin the epoxy injection at the bottom of the fractured area and progress upward using a port or tee filling sequence that will ensure the filling of the lowermost injection ports or tees first.

Establish injection procedures and the depths and spacings of holes at injection ports or tees. Use epoxy with flow characteristics and injection pressure that ensure no further damage will be done to the member being repaired. Ensure that the epoxy will first fill the innermost portion of the cracked concrete and that the potential for creating voids within the crack or epoxy will be minimized.

- **D. Finish the Repaired Surface.** Remove the injection ports or tees flush with the concrete surface after the fractured area has been filled and the epoxy has partially cured (24 hours at ambient temperature not less than 60°F, otherwise not less than 48 hours). Roughen the surfaces of the repaired areas to achieve uniform surface texture. Remove any injection epoxy runs or spills from concrete surfaces.
- **E. Obtain Core Samples.** Obtain two 4-inch diameter core samples in the first 25 linear feet of crack repaired and one core for each 25 linear feet thereafter. Take the core samples from locations determined by the Engineer and for the full crack depth. Cores will be visibly examined by the Engineer to determine the extent of epoxy penetration.
- **F. Repair Core Holes.** Repair core holes in the concrete with non-shrink grout in accordance with Section 601.03.03(B) within 24 hours.

IV. MEASUREMENT

The Department will measure the quantity in linear feet along the centerline of the cracks. The Department will not measure preparation of the site for the Engineer's access or removal and reapplication of repairs that do not satisfy the Engineer's approval for payment and will consider them incidental to "Epoxy Injection Crack Repair".

V. PAYMENT.

The Department will make payment for the completed and accepted quantities of concrete cracks repaired with epoxy injection under the following:

| <u>Code</u> | <u>Pav Item</u> | <u>Pav Unit</u> |
|-------------|------------------------------|-----------------|
| 23744EC | Epoxy Injection Crack Repair | Linear Feet |

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

SPECIAL NOTE FOR SOUND BARRIER WALLS

I. DESCRIPTION

All work shall be performed in accordance with the Department's latest Standards and Supplemental Specifications and applicable Special Provisions and Standard and Sepia Drawings, except as specified in these notes or elsewhere in this proposal. Section references are to the Standard Specifications.

This work shall consist of preparing any necessary shop drawings, and manufacturing, testing, transporting, storing, and installing sound barrier walls; furnishing and installing drilled shaft foundations; excavating and backfilling; and restoring the work area in accordance with the dimensions, lines, and grades shown on the contract plans.

All references to AASHTO are to the AASHTO LRFD Bridge Design Specifications for Highway Bridges, Current Edition with Interims.

II. DESIGN

A. General

See Sound Barrier Wall General Notes in the contract plans for design specifications. Any alternative design furnished by the Contractor shall meet or exceed the specifications, standards, and assumptions shown in the contract plans and documents.

B. Site Conditions

Be advised that Section 102.07 of the Specifications applies to this project. It shall be distinctly understood that any references in the contract plans and other contract documents to rock, rock disintegration zone, earth, or any other subsurface material whether in numbers, words, letters, or lines is solely for the Department's information. The Bidder draws his own conclusions as to the field conditions to be encountered.

Tops of drilled shafts are to be a minimum of 6 inches below finished grade, unless otherwise noted in the contract plans.

C. Utilities

Existing and proposed utilities were considered when developing layout and design of sound barrier walls. See the contract plans for additional information.

The Contractor shall contact the KYTC District 5 Traffic Office ten business days prior to beginning work to mark the existing roadway lighting conduits. Repair or replace features damaged during construction in like kind materials and design at no additional cost to the Department.

D. Contractor Submittals

Submit shop drawings to the Consultant for review at least 30 working days before fabrication begins. Submit adequate documentation of proprietary designs and/or products to the Consultant for review. The shop drawings shall be signed, sealed, and dated by a Kentucky registered Professional Engineer.

Provide supporting calculations for all modifications to the structural design of the panels, posts, base plates, moment slabs, drilled shafts, and anchorages provided by the contract plans. These calculations shall be signed, sealed, and dated by a Kentucky registered Professional Engineer. The Department will review the design calculations and plans for general conformance with AASHTO, this Special Note, and the Contract Documents.

The shop drawings, design calculations, details and dimensions may not be completely checked by the Department. The Contractor shall be responsible for the accuracy of his design calculations and for compatibility with the contract plans. The Department's review will not relieve the Contractor of responsibility for the accuracy and completeness of the design calculations and plans.

Submit electronic files in PDF format for the sound barrier wall to the Consultant for approval. One set of files, with any corrections noted will be returned to the Contractor. When the files are approved, five copies shall be submitted.

Do not order materials or begin fabrication or construction before the Department's review of the shop drawings is completed. The Contractor may request permission from the Engineer to begin foundation construction at his own risk. Written permission from the engineer is required.

After acceptance by the Department, submit requests for changes to the Engineer. Obtain written acceptance from the Engineer before incorporating any of the requested changes into the work.

Allow thirty working days for the Department's review of each submission of the shop drawings and/or supporting calculations for all modifications to the structural design of the sound barrier wall. The thirty-day period begins when the submission is received by the Engineer. Additional time required by the Department to review re-submissions shall not be cause for extending the specified completion date. Provide additional re-submissions as requested at no additional cost to the Department and with no extension of the specified completion date.

III. MATERIALS APPROVAL

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing. Unless otherwise specified in these Notes, obtain acceptance of materials from the Engineer before use.

IV. CONSTRUCTION

Perform site preparation necessary to construct the sound barrier wall in accordance with the Standard Specifications, contract plans, Contractor's approved shop drawings, and notes in the proposal.

Construct sound barrier walls in accordance with the contract plans and the approved shop drawings. Construct vertical and horizontal joints so that the sound barrier wall is structurally sound and with no sound leaks. Construct the face of the completed sound barrier wall without deviation from the vertical of more than ½ inch in ten feet and with horizontal alignment conforming to the neat line shown on the contract plans.

Alternate drilled shaft foundation designs are permitted if solid rock is encountered above the solid rock line shown on the contract plans; however, contact the Engineer before revising the drilled shaft foundations. Revised calculations and Contractor's plans will be required. Obtain the Engineer's acceptance of revised drilled shaft foundation designs before constructing. Construct the tops of drilled shaft foundations a minimum of six inches below finish grade on both sides of the sound barrier wall. There will be no deduction in area to be measured for payment when drilled shaft foundations protrude into the sound barrier bottom pay limit.

Revising the drilled shaft foundation designs shall not be cause for an extension in contract time or change the contract price.

Transport, store, handle, and erect precast units in accordance with Section 605 of the Standard Specifications.

Protect all masonry materials from the weather from the time of manufacture until they are in the finished sound barrier walls.

After constructing the wall, clean all sound barrier wall surfaces. Clean from the top of the wall to six inches below finished grade on both sides. Use a cleaner selected by the Contractor and approved by the Engineer.

V. MEASUREMENT

SOUND BARRIER WALL

Any area of the sound barrier wall outside the approved vertical and horizontal plan limits as shown on the approved plans or changes approved or directed by the Engineer will not be measured for payment. Approved adjustments in the area will be measured in square feet and the final quantity will be increased or decreased as applicable.

The Department will not measure caps, copings, joint sealants, void fill material, weep holes, connectors, trim, surface finish, concrete stain, cleaning, sample panels, and incidental items that are a normal part of the sound barrier wall construction, but shall be incidental to Sound Barrier Wall.

DRILLED SHAFTS

See the Special Note for Drilled Shafts.

VI. PAYMENT

Payment at the contract unit price per square foot shall be full complete compensation for all labor, materials, equipment, and incidentals to design and construction of the sound barrier walls. Sound Barrier Wall includes all mounting appurtenances for the sheet signs to the sound wall per the traffic sheets. Coordinate placement with the engineer.

| CODE | PAY ITEM | PAY UNIT |
|---------|--------------------|-------------|
| | | |
| 21590EN | Sound Barrier Wall | Square Feet |

SPECIAL NOTE

For Tree Removal

Jefferson County ADDITION OF NB AND SB AUXILIARY LANES ON I-71 NEAR KENNEDY, INCLUDING OPERATIONAL IMPROVEMENTS TO THE ZORN INTERCHANGE. (2004BOPC) (2024CCR)

Item No. 05-48.10

NO CLEARING OF TREES 5 INCHES OR GREATER (DIAMETER BREAST HEIGHT) FROM MAY 15 - JULY 31.

APPLICABLE FOR: ALL HABITAT TYPES

If there are any questions regarding this note, please contact Danny Peake, Director, Division of Environmental Analysis, 200 Mero Street, Frankfort, KY 40601, Phone: (502) 564-7250.

SPECIAL NOTE FOR CONCRETE SLURRY

If diamond grinding, grooving or any other process which produces slurry is required on roadways or bridges, the contractor shall ensure that all concrete slurry associated with these processes is collected, managed, and disposed of appropriately. The waste material shall be disposed of at a permitted disposal facility, in accordance with the Kentucky Standard Specifications for Road and Bridge Construction and the Environmental Performance Standards outlined in 401 KAR 47:030, or managed as a material for beneficial reuse. Any fines or remediation related to improper disposal shall be the sole responsibility of the contractor.

Disposal of concrete slurry will not be paid separately and shall be considered incidental to other bid items.

8/20/2019

SPECIAL NOTE FOR PIPELINE INSPECTION

1.0 DESCRIPTION. The Department will perform visual inspections on all pipe on the project. A video inspection will be required on projects having more than 250 linear feet of storm sewer and/or culvert pipe and on routes with an ADT of greater than 1,000 vehicles. Conduct video inspections on all pipe located under the roadway and 50 percent of the remaining pipe not under the roadway. Storm sewer runs and outfall pipes not under the roadway take precedence over rural entrance pipes. Contractors performing this item of work must be prequalified with the Department in the work type J51 (Video Pipe Inspection and Cleaning). Deflection testing shall be completed using a mandrel in accordance with the procedure outlined below or by physical measurement for pipes greater than 36 inches in diameter. Mandrel testing for deflection must be completed prior to the video inspection testing. Unless otherwise noted, Section references herein are to the Department's Standard Specifications for Road and Bridge Construction, current edition.

2.0 VIDEO INSPECTION. Ensure pipe is clear of water, debris or obstructions. Complete the video inspection and any necessary measurement prior to placing the final surface over any pipe. When paving will not be delayed, take measurements 30 days or more after the completion of earthwork to within 1 foot of the finished subgrade. Notify the Engineer a minimum of 24 hours in advance of inspection and notify the Engineer immediately if distresses or locations of improper installation are logged.

2.1 INSPECTION FOR DEFECTS AND DISTRESSES

A) Begin at the outlet end and proceed through to the inlet at a speed less than or equal to 30 ft/minute. Remove blockages that will prohibit a continuous operation.

B) Document locations of all observed defects and distresses including but not limited to: cracking, spalling, slabbing, exposed reinforcing steel, sags, joint offsets, joint separations, deflections, improper joints/connections, blockages, leaks, rips, tears, buckling, deviation from line and grade, damaged coatings/paved inverts, and other anomalies not consistent with a properly installed pipe.

C) During the video inspection provide a continuous 360 degree pan of every pipe joint.

D) Identify and measure all cracks greater than 0.1" and joint separations greater than 0.5".

E) Video Inspections are conducted from junction to junction which defines a pipe run. A junction is defined as a headwall, drop box inlet, curb box inlet, manhole, buried junction, or other structure that disturbs the continuity of the pipe. Multiple pipe inspections may be conducted from a single set up location, but each pipe run must be on a separate video file and all locations are to be referenced from nearest junction relative to that pipe run.

F) Record and submit all data on the TC 64-765 and TC 64-766 forms.

3.0 MANDREL TESTING. Mandrel testing will be used for deflection testing. For use on Corrugated Metal Pipe, High Density Polyethylene Pipe, and Polyvinyl Chloride Pipe, use a mandrel device with an odd number of legs (9 minimum) having a length not less than the outside diameter of the mandrel. The diameter of the mandrel at any point shall not be less than the diameter specified in Section 3.6. Mandrels can be a fixed size or a variable size.

3.1 Use a proving ring or other method recommended by the mandrel manufacturer to verify mandrel diameter prior to inspection. Provide verification documentation for each size mandrel to the Engineer.

3.2 All deflection measurements are to be based off of the AASHTO Nominal Diameters. Refer to the chart in section 3.6.

3.3 Begin by using a mandrel set to the 5.0% deflection limit. Place the mandrel in the inlet end of the pipe and pull through to the outlet end. If resistance is met prior to completing the entire run, record the maximum distance achieved from the inlet side, then remove the mandrel and continue the inspection from the outlet end of the pipe toward the inlet end. Record the maximum distance achieved from the outlet side.

3.4 If no resistance is met at 5.0% then the inspection is complete. If resistance occurred at 5.0% then repeat 3.1 and 3.2 with the mandrel set to the 10.0% deflection limit. If the deflection of entire pipe run cannot be verified with the mandrel then immediately notify the Engineer.

3.5 Care must be taken when using a mandrel in all pipe material types and lining/coating scenarios. Pipe damaged during the mandrel inspection will be video inspected to determine the extent of the damage. If the damaged pipe was video inspected prior to mandrel inspection then a new video inspection is warranted and supersedes the first video inspection. Immediately notify the Engineer of any damages incurred during the mandrel inspection and submit a revised video inspection report.

| Base Pipe Diameter | AASHTO Nominal | Max. Deflection Limit | | |
|--------------------|----------------|-----------------------|--------|--|
| 1 | Diameter | 5.0% | 10.0% | |
| (inches) | (inches) | (i | nches) | |
| 15 | 14.76 | 14.02 | 13.28 | |
| 18 | 17.72 | 16.83 | 15.95 | |
| 24 | 23.62 | 22.44 | 21.26 | |
| 30 | 29.53 | 28.05 | 26.58 | |
| 36 | 35.43 | 33.66 | 31.89 | |
| 42 | 41.34 | 39.27 | 37.21 | |
| 48 | 47.24 | 44.88 | 42.52 | |
| 54 | 53.15 | 50.49 | 47.84 | |
| 60 | 59.06 | 56.11 | 53.15 | |

3.6 AASHTO Nominal Diameters and Maximum Deflection Limits.

4.0 PHYSICAL MEASUREMENT OF PIPE DEFLECTION. Alternate method for deflection testing when there is available access or the pipe is greater than 36 inches in diameter, as per 4.1. Use a contact or non-contact distance instrument. A leveling device is recommended for establishing or verifying vertical and horizontal control.

4.1 Physical measurements may be taken after installation and compared to the AASHTO Nominal Diameter of the pipe as per Section 3.6. When this method is used, determine the smallest interior diameter of the pipe as measured through the center point of the pipe (D2). All measurements are to be taken from the inside crest of the corrugation. Take the D2 measurements at the most deflected portion of the pipe run in question and at intervals no greater than ten (10) feet through the run. Calculate the deflection as follows:

% Deflection = [(AASHTO Nominal Diameter - D2) / AASHTO Nominal Diameter] x 100%

Note: The Engineer may require that preset monitoring points be established in the culvert prior to backfilling. For these points the pre-installation measured diameter (D1) is measured and recorded. Deflection may then be calculated from the following formula:

% Deflection = [(D1 - D2)/D1] (100%)

4.2 Record and submit all data.

5.0 DEDUCTION SCHEDULE. All pipe deductions shall be handled in accordance with the tables shown below.

| FLEXIBLE PIPE DEFLECTION | | | |
|----------------------------------|--|--|--|
| Amount of Deflection (%) Payment | | | |
| 0.0 to 5.0 | 100% of the Unit Bid Price | | |
| 5.1 to 9.9 | 50% of the Unit Bid Price ⁽¹⁾ | | |
| 10 or greater | Remove and Replace ⁽²⁾ | | |

⁽¹⁾ Provide Structural Analysis for HDPE and metal pipe. Based on the structural analysis, pipe may be allowed to remain in place at the reduced unit price. ⁽²⁾ The Department may allow the pipe to remain in place with no pay to the Contractor in instances where it is in the best interest to the public and where the structural analysis demonstrates that the pipe should function adequately.

| RIGID PIPE REMEDIATION TABLE PIPE | | | |
|--|----------------------------|--|--|
| Crack Width (inches) Payment | | | |
| ≤0.1 | 100% of the Unit Bid Price | | |
| Greater than 0.1 Remediate or Replace ⁽¹⁾ | | | |

⁽¹⁾ Provide the Department in writing a method for repairing the observed cracking. Do not begin work until the method has been approved.

6.0 PAYMENT. The Department will measure the quantity in linear feet of pipe to inspect. The Department will make payment for the completed and accepted quantities under the following:

CodePay Item24814ECPipeline Inspection10065NSPipe Deflection Deduction

<u>Pay Unit</u> Linear Foot Dollars

SPECIAL NOTE FOR NON-TRACKING TACK COAT

1. DESCRIPTION AND USEAGE. This specification covers the requirements and practices for applying a non-tracking tack asphalt coating. Place this material on the existing pavement course, prior to placement of a new asphalt pavement layer. Use when expedited paving is necessary or when asphalt tracking would negatively impact the surrounding area. This material is not suitable for other uses. Ensure material can "break" within 15 minutes under conditions listed in 3.2.

2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Non-Tracking Tack. Provide material conforming to Subsection 2.1.1.

| 2.1.1 Provide a tack conforming to the following material requirements: |
|---|
|---|

| Property | Specification | Test Procedure |
|---|---------------|----------------|
| Viscosity, SFS, 77 ° F | 20 - 100 | AASHTO T 72 |
| Sieve, % | 0.3 max. | AASHTO T 59 |
| Asphalt Residue ¹ , % | 50 min. | AASHTO T 59 |
| Oil Distillate, % | 1.0 max. | AASHTO T 59 |
| Residue Penetration, 77 ° F | 0 - 30 | AASHTO T 49 |
| Original Dynamic Shear (G*/sin δ), 82 ° C | 1.0 min. | AASHTO T 315 |
| Softening Point, ° F | 149 min. | AASHTO T 53 |
| Solubility, % | 97.5 min. | AASHTO T 44 |

¹Bring sample to 212 °F over a 10-15 minute period. Maintain 212 °F for 15-20 minutes or until 30-40 mL of water has distilled. Continue distillation as specified in T59.

- 2.2. Equipment. Provide a distributor truck capable of heating, circulating, and spraying the tack between 170 °F and 180 °F. Do not exceed 180 °F. Circulate the material while heating. Provide the correct nozzles that is recommend by the producer to ensure proper coverage of tack is obtained. Ensure the bar can be raised to between 14" and 18" from the roadway.
- 2.3. Personnel. Ensure the tack supplier has provided training to the contractor on the installation procedures for this product. Make a technical representative from the supplier available at the request of the Engineer.

3. CONSTRUCTION.

Surface Preparation. Prior to the application of the non-tracking tack, ensure the 3.1 pavement surface is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the surface by scraping, sweeping, and the use of compressed air. Ensure this preparation process occurs shortly before application to prevent the return of debris on to the pavement. If rain is expected within one hour after application, do not apply material. Apply material only when the surface is dry, and no precipitation is expected.

3.2 Non-tracking Tack Application. Placement of non-tracking tack is not permitted from October 1st to May 15th. When applying material, ensure the roadway temperature is a minimum of 40°F and rising. Prior to application, demonstrate competence in applying the tack according to this note to the satisfaction of the Engineer. Heat the tack in the distributor to between 170 - 180 °F. After the initial heating, between 170 - 180 °F, the material may be sprayed between 165 °F and 180 °F. Do not apply outside this temperature range. Apply material at a minimum rate of 0.70 pounds (0.08 gallons) per square yard. Ensure full coverage of the material on the pavement surface. Full coverage of this material is critical. Increase material application rate if needed to achieve full coverage. Schedule the work so that, at the end of the day's production, all non-tracking tack is covered by an asphalt mixture. If for some reason the non-tracking tack cannot be covered by an asphalt mixture, ensure the non-tracking tack material is clean and reapply the non-tracking tack prior to placing the asphalt mixture. Do not heat material more than twice in one day.

3.3 Non-tracking Tack Certification. Furnish the tack certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a sample of non-tracking tack be taken from the distributor at a rate of one sample per 15,000 tons of mix. Take two 1 gallon samples of the heated material and forward the sample to the Division of Materials for testing within 7 days. Ensure the product temperature is between 170 and 180 °F at the time of sampling.

- 4. MEASUREMENT. The Department will measure the quantity of non-tracking tack in tons. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of non-tracking tack, the cleaning of the pavement surface, or furnishing and placing the non-tracking tack. The Department will consider all such items incidental to the non-tracking tack.
- 5. PAYMENT. The Department will pay for the non-tracking tack at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. Non-tracking tack will not be permitted for use from October 1st to May 15th. During this timeframe, the department will allow the use of an approved asphalt emulsion in lieu of a non-tracking tack product but will not adjust the unit bid price of the material. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

| Non-Tracking Tack Price Adjustment Schedule | | | | | | |
|---|---------------|-------------|-------------|-------------|-------------|-------------|
| Test | Specification | 100% Pay | 90% Pay | 80% Pay | 50% Pay | 0% Pay |
| Viscosity, SFS, 77 ° F | 20-100 | 19 - 102 | 17 - 18 | 15 - 16 | 14 | ≤13 |
| | | | 103 - 105 | 106 - 107 | 108 - 109 | ≥110 |
| Sieve, % | 0.30 max. | ≤ 0.40 | 0.41 - 0.50 | 0.51 - 0.60 | 0.61 - 0.70 | ≥ 0.71 |
| Asphalt Residue, % | 50 min. | ≥49.0 | 48.5 - 48.9 | 48.0 - 48.4 | 47.5-47.9 | ≤ 47.4 |
| Oil Distillate, % | 1.0 max. | ≤1.0 | 1.1-1.5 | 1.6 - 1.7 | 1.8-1.9 | >2.0 |
| Residue Penetration, 77 ° F. | 30 max. | ≤ 31 | 32 - 33 | 34 - 35 | 36 - 37 | ≥ 38 |
| Original Dynamic Shear (G*/sin δ), 82 ° C | 1.0 min. | ≥0.95 | 0.92 - 0.94 | 0.90 - 0.91 | 0.85 - 0.89 | ≤ 0.84 |
| Softening Point, ° F | 149 min. | ≥145 | 142 - 144 | 140 - 141 | 138 - 139 | ≤137 |
| Solubility, % | 97.5 min. | ≥ 97.0 | 96.8 - 96.9 | 96.6 - 96.7 | 96.4 - 96.5 | ≤ 96.3 |

<u>Code</u> 24970EC Pay Item Asphalt Material for Tack Non-Tracking <u>Pay Unit</u> Ton

Revised: May 23, 2022

SPECIAL NOTE FOR ELECTRONIC DELIVERY MANAGEMENT SYSTEM (e-Ticketing) ASPHALT

This Special Note will apply when indicated on the plans or in the proposal. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction current edition.

1.0 DESCRIPTION. Incorporate an e-Ticketing Delivery Software for weighed asphalt material delivered to the project to report loads and provide daily running totals of weighed asphalt material for pay items and incidental work during the construction processes from the point of measurement and loading to the point of incorporation to the project.

2.0 MATERIALS AND EQUIPMENT. Contractor shall supply material data in JavaScript Object Notation (JSON) documents to the KYTC e-Ticketing Delivery Software (KYTC e-Ticketing Portal) via Application Programming Interface (API) or direct connection. Test and verify that ticket data can be shared from the original source no fewer than 30 days prior to material placement activities. An e-Ticketing Delivery Software supplier can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verifications, and data management and processing as needed during the Project to maintain material data delivery capabilities. Virtual meetings may be hosted in lieu of on-site meetings when deemed appropriate by the Engineer.

Provide e-Ticketing Delivery Software that will meet the following:

- 1. The e-Ticketing Delivery Software shall be fully integrated with the Contractor's Load Read-Out scale system at the material source location.
- 2. The e-Ticketing Delivery Software shall provide real-time delivery to KYTC e-Ticketing Portal.
- 3. Transmit any updates to the ticket data within 5 minutes of a change.

3.0 CONSTRUCTION. Provide the Engineer with the manufacturer's specifications and all required documentation for data access at the pre-construction conference.

A. Construction Requirements

- 1. Install and operate software in accordance with the manufacturer's specifications.
- 2. Verify that all pertinent information is provided by the software within the requirements of this Special Note.

B. Data Deliverables

Provide to the Engineer a means in which to gather report summaries by way of iOS apps, web pages, or any other method at the disposal of the Engineer. The Engineer may request data at any time during the project.

1. Asphalt Material

a. Real-time Continuous Data Items

Provide the Engineer access to JSON documents capable of being transmitted through the KYTC's e-Ticketing Portal that displays the following information in real-time with a web-based system compatible with iOS and Windows environments.

- Each Truck
 - Supplier Name
 - o Supplier Address
 - Supplier Phone
 - Plant location
 - o Date
 - Time at source
 - Project Location

- Contract ID#
- o Carrier Name
- o Unique Truck ID
- Description of Material
- Mix Design Number
- Gross, Tare and Net Weight
- Weighmaster

4.0 MEASUREMENT. The Department will not measure the electronic delivery management system.

5.0 PAYMENT. The Department will not measure this work for payment and will consider all items contained in this note to be incidental to the asphalt mixtures on the project, as applicable.

May 5, 2025

SPECIAL NOTE FOR ELECTRONIC DELIVERY MANAGEMENT SYSTEM (e-Ticketing) AGGREGATE

This Special Note will apply when indicated on the plans or in the proposal. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction current edition.

1.0 DESCRIPTION. Incorporate an e-Ticketing Delivery Software for weighed aggregate material delivered to the project to report loads and provide daily running totals of weighed aggregate material for pay items and incidental work during the construction processes from the point of measurement and loading to the point of incorporation to the project.

2.0 MATERIALS AND EQUIPMENT. Contractor shall supply material data in JavaScript Object Notation (JSON) documents to the KYTC e-Ticketing Delivery Software (KYTC e-Ticketing Portal) via Application Programming Interface (API) or direct connection. Test and verify that ticket data can be shared from the original source no fewer than 30 days prior to material placement activities. An e-Ticketing Delivery Software supplier can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verifications, and data management and processing as needed during the Project to maintain material data delivery capabilities. Virtual meetings may be hosted in lieu of on-site meetings when deemed appropriate by the Engineer.

Provide e-Ticketing Delivery Software that will meet the following:

- 1. The e-Ticketing Delivery Software shall be fully integrated with the Contractor's Load Read-Out scale system at the material source location.
- 2. The e-Ticketing Delivery Software shall provide real-time delivery to KYTC e-Ticketing Portal.
- 3. Transmit any updates to the ticket data within 5 minutes of a change.

3.0 CONSTRUCTION. Provide the Engineer with the manufacturer's specifications and all required documentation for data access at the pre-construction conference.

A. Construction Requirements

- 1. Install and operate software in accordance with the manufacturer's specifications.
- 2. Verify that all pertinent information is provided by the software within the requirements of this Special Note.

B. Data Deliverables

Provide to the Engineer a means in which to gather report summaries by way of iOS apps, web pages, or any other method at the disposal of the Engineer. The Engineer may request data at any time during the project.

1. Aggregate Material

a. Real-time Continuous Data Items

Provide the Engineer access to JSON documents capable of being transmitted through the KYTC's e-Ticketing Portal that displays the following information in real-time with a web-based system compatible with iOS and Windows environments.

- Each Truck
 - Supplier Name
 - Supplier Address
 - Supplier Phone
 - Plant location
 - o Date
 - Time at source
 - Project Location

- Contract ID#
- Carrier Name
- o Unique Truck ID
- Description of Material
- o Load Number
- Gross, Tare and Net Weight
- o Weighmaster

4.0 MEASUREMENT. The Department will measure the electronic delivery management system as a lump sum item.

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

- 1. Payment is full compensation for all work associated with providing all required equipment, training, and documentation.
- 2. Payment will be full compensation for costs related to providing the e-Ticketing Delivery Software, including integration with plant load-out systems, and report viewing/exporting process. All quality control procedures including the software representative's technical support and on-site training shall be included in the Contract lump sum price.

| Code | Pay Item | <u>Pay Unit</u> |
|---------|-------------------------------------|-----------------|
| 26248EC | ELECTRONIC DELIVERY MGMT SYSTEM-AGG | LS |

May 5, 2025

SPECIAL NOTE FOR EXPERIMENTAL KYCT AND FIELD RUT TESTING June 2025 Update

1.0 General

1.1 Description. The KYCT (Kentucky Method for Cracking Test) and the IDEAL-RT/IDT-HT test results will help determine if the mixture is susceptible to cracking and rutting. During the experimental phase, data will be gathered and analyzed by the Department to determine the durability and stability of the bituminous mixes. Additionally, the data will help the Department to create future performance-based specifications which will include the KYCT and field rutting test methods.

2.0 Equipment

2.1 KYCT Testing Equipment. The Department will require a Marshall Test Press with digital recording capabilities. Other CT testing equipment may be used for testing with prior approval by the Department.

2.2 Water Baths. One or more water baths will be required that can maintain a temperature of 77° +/- 1.8° F with a digital thermometer showing the water bath temperature. Also, one water bath shall have the ability to suspend gyratory specimen fully submerged in water in accordance with AASHTO T-166, current edition.

2.3 Field Rutting Tests. If the contractor elects to perform the IDEAL-RT test, in conformance with ASTM D8360-22, the acquisition of the "Option A" or "Option B" test fixture is required. If the IDT-HT is desired, the test press utilized for the KYTC is sufficient. The Department shall approve all test configurations at their discretion.

2.4 Gyratory Molds. Gyratory molds will be required to assist in the production of gyratory specimens in accordance with AASHTO T-312, current edition.

2.5 Ovens. Adequate (minimum of two ovens) will be required to accommodate the additional molds and asphalt mixture necessary to perform the acceptance testing as outlined in Section 402 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

2.6 Department Equipment. The Department will provide gyratory molds, PINE 850 Test Press with digital recordation, and CT testing equipment to assist during this experimental phase so data can be gathered.

3.0 Testing Requirements

3.1 Acceptance Testing. Perform all acceptance testing and aggregate gradation as according with Section 402 and Section 403 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

3.2 KYCT Testing. Perform crack resistance analysis (KYCT) in accordance with the current Kentucky Method for KYCT Index Testing during the plant production of all surface mixtures. Conform to KYTC Specifications for Mix Design approvals. All production testing is currently informational.

3.2.1 KYCT Frequency. Obtain an adequate sample of hot mix asphalt to ensure the acceptance testing, gradation, and KYCT gyratory samples can be fabricated and is representative of the bituminous mixture. Acceptance specimens shall be fabricated first, then after the specified amount of oven conditioning, fabricate the KYCT samples with the gyratory compactor in accordance with Section 2.4 of this Special Note. Analysis of the KYCT specimens will be required one per sublot produced from the same asphalt material and at the same time as the acceptance specimen is sampled and tested.

3.2.2 Number of Specimens and Conditioning. Fabricate specimens in accordance with the Kentucky Method for KYCT Index Testing. Contrary to the method, for field specimens, fabricate three replicates for cracking resistance analyses and three replicates for rutting resistance analyses. The specimens shall be compacted at the temperature in accordance with KM 64-411.

Contrary to the Kentucky Method, plant produced bituminous material shall be short-term conditioned immediately after sampling for two hours uncovered in the oven at compaction temperature in accordance with KM 64-411.

While the fabricated specimens are allowed to cool in air (fan is permissible) for 30 minutes +/- 5 minutes, find the bulk specific gravity of each specimen according to AASHTO T166. Next, condition the replicates in a 77 °F water bath for 30 minutes +/- 5 minutes. To ensure confidence and reliability of the test results provided by KYCT testing and Field Rut testing, reheating of the asphalt mixture is prohibited.

3.2.3 Long Term Aging CT's. For long-term aging and cracking resistance considerations in mix design, mix and condition 3 specimens uncovered for 20 hours at compaction temperature in accordance with KM 64-411. Perform KYCT testing in accordance with KM 64-450 and record the results on the Long-Term KYCT tab of the latest version of the MixPack.

3.2.4 Record Times. For each sublot, record the time required between drying aggregates in the plant to KYCT specimen fabrication. The production time may vary due to the time that the bituminous material is held in the silo. Record the preconditioning time when the time exceeds the one-hour specimen cool down time as required in accordance with The Kentucky Method for KYCT Index Testing. The preconditioning time may exceed an hour if the technician is unable to complete the test on the same day or within the specified times as outlined in The Kentucky Method for KYCT Index Testing. The production time and the preconditioning time shall be recorded on the AMAW.

3.2.5 File Name. As according to section 7.12 of The Kentucky Method for KYCT Index Testing, save the filename with the following format: "CID_Approved Mix Number_Lot Number_Sublot Number_ Date"

3.3 Field Rut Testing. Perform the rut resistance analysis (IDEAL-RT or IDT-HT) in accordance with ASTM D8360-22 or ALDOT458, respectively. Contrary to ASTM D8360 & ALDOT458, precondition the test specimens in a water bath or forced draft oven at 50 °C +/- 1 °C for 60 +/- 5 min before completing the test.

3.3.1 Field Rut Testing Frequency. Perform one test per lot of mixture produced. The plant produced bituminous material sampled for the field rut test does not have to be obtained at the same time as the acceptance and KYCT sample. If the field rut test sample is not obtained at the same time as the KYCT sample, determine the Maximum Specific Gravity of the KYCT sample in accordance with AASHTO T-209 coinciding with the test specimens.

3.3.2 Number of Specimens and Conditioning. Fabricate in accordance with the Kentucky Method for KYCT Index Testing. Contrary to the method, for field specimens, fabricate three

replicates for rutting resistance analyses. The specimens shall be compacted at the temperature in accordance with KM 64-411. Contrary to the Kentucky Method, plant produced bituminous material shall be short-term conditioned immediately after sampling for two hours uncovered in the oven at compaction temperature in accordance with KM 64-411.

3.3.3 Record Times. Record the production time as according to section 3.2.3 in this special note. Also record the time that the specimens were fabricated. All times shall be recorded on the AMAW.

3.3.4 File Name. Record all field rut data in the latest version of the AMAW.

4.0 Data

Submit the AMAW and all test data that was obtained for acceptance, gradation, KYCT, and field rut testing within five working days once all testing has been completed for a lot to Central Materials Lab and the District Materials Engineer. Also, any data and or comments that the asphalt contractor or district personnel deem informational during this experimental phase, shall also be submitted to the Central Materials Lab and the District Materials Engineer. Any questions or comments regarding any item in this Special Note can be directed to the Central Office, Division of Materials, Asphalt Branch.

5.0 Payment

Any additional labor and testing equipment that is required to fabricate and test the KYCT and field rut specimens shall be considered incidental to the asphalt surface line item. The Department will perform the testing for the KYCT and field rut specimens if a producer does not possess the proper equipment.

June 12th, 2025

SPECIAL NOTE FOR RECYCLED ASPHALT PAVEMENT (RAP) STOCKPILE MANAGEMENT

I. GENERAL

The use of reclaimed asphalt pavement (RAP) from Department projects or other approved sources in hot mix asphalt (HMA) or warm mix asphalt (WMA) shall be subject to stockpile management and handling of material as described in this section.

The Department approves RAP on a stockpile basis, following the process set forth in this method. The contractor's responsibilities in the process are as follows:

- To obtain the Department's approval of all RAP prior to its use on a Department project and to deliver test data and samples as required
- To monitor and preserve the quality and uniformity of the approved material during storage and handling, adding no unapproved material to the existing stockpile
- To comply with the Department's requirements regarding replenishment of approved stockpiles

The Department will approve RAP based on its composition and variability in gradation and asphalt content, and on visual inspections of the stockpile, which the Department may conduct at its discretion. The Department may withdraw approval of a stockpile if the requirements of this specification are not followed in good faith.

The Maximum Percentage Allowed in a mix design will be based on these criteria and on the category of RAP source, as defined in this document.

II. APPROVAL PROCESS

Qualified asphalt producers (listed in List of Approved Materials-Asphalt Mixing Plants) may submit requests for RAP stockpile approval to the Asphalt Branch, Division of Materials, in the Annual Certification for Previously Approved Asphalt Mixing Plants and Related Equipment. The requester shall provide test results as prescribed in Part IID. The Division of Materials may, at their discretion, collect samples or inspect a RAP stockpile consistent with Section IIE.

Upon completion of the review of testing results and, if applicable, visual inspection, the Division of Materials, Asphalt Branch will approve or disapprove the material by letter and will assign a Stockpile Identification Number for each approved RAP stockpile. Note: The contractor's average gradation and asphalt content, as listed in the approval letter, shall be the gradation used in subsequent mix designs. The approval letter will state the applicable limits on the use of the material in mix designs and will summarize the Department's findings, listing the average gradation and asphalt content from the contractor's tests and the corresponding values found by the Department. Where the Maximum Percentage Allowed is low due to variability, the contractor may elect to improve the uniformity of the material by further processing and may again sample, test, and request approval for the material.

No material shall be added to a stockpile after it has been approved, except as provided in Parts V, VI, and VII below.

IIA. RAP Quality Management Plan

For a contractor to receive approval to use RAP on any department project, a RAP Quality Management Plan must first be approved by the department. The RAP Quality Management Plan shall be submitted to the

Division of Materials annually for approval as part of the Contractor's Quality Control Plan/Checklist. The Quality Management Plan is required to demonstrate how the Contractor will provide consistency and quality of material utilized in all asphalt mixes produced for use on Department projects. The Quality Management Plan shall include:

- Unprocessed RAP Stockpiles
 - Designation of stockpile(s) as single or multiple source
 - Designation of stockpile(s) as classified or unclassified
 - o Designation of stockpile(s) as captive or continuously replenishing
 - Plan for how stockpile(s) is built (layers, slope, etc.)
 - Plan to minimize stockpile(s) contamination
- Processing and Crushing
 - Equipment used to feed screener or crusher
 - Excavation process based on equipment type
- Processing Millings
 - Single Project or Source
 - Screening, Fractionation, or Crushing plan
 - o Multiple Source
 - Process to achieve uniform material from stockpile
 - Screening, Fractionation, or Crushing plan
- Processed RAP Stockpiles
 - Minimization of segregation
 - Minimization of moisture

IIB. RAP Stockpile Placement

All processed RAP stockpiles shall be placed on a sloped, paved surface. The requirement for a paved surface may be waived by the Cabinet if the Contractor's RAP Quality Management Plan demonstrates effective material handling that will minimize deleterious material from beneath the processed stockpile entering the plant. *No processed stockpile will be placed directly on grass or dirt.*

IIC. Stockpile Identification Signs

RAP stockpiles shall be identified with posted signs displaying the gradation of material in the stockpile (course, intermediate, or fine). These signs shall be made of weatherproof material and shall be highly visible. Numerals shall be easily readable from outside the stockpile area. If a stockpile exists in two or more parts, each part must have its own sign.

IID. Standard Approval Procedure

The Contractor shall obtain random samples representative of the entire stockpile and shall have each sample tested for gradation and asphalt content according to <u>KM 64-426</u>, <u>KM 64-427</u>, and AASHTO T308. The material samples must be in its final condition after all crushing and screening. At least one sample shall be obtained for each 1,000 tons of processed RAP, with a minimum of five samples per stockpile. Sampling shall be performed according to the method prescribed for asphalt mix aggregates in the Department's Materials Field Testing and Sampling Manual and KM 64-601. The minimum sampling size (after quartering) for tests of RAP samples is 1,500 g. except for samples containing particles more than one inch in diameter, for which the minimum is 2,000 g.

To request approval of a RAP stockpile, submit the following documents to the Division of Materials. It is the requester's responsibility to correctly address, label, and deliver these submittals:

• Submit request for approval at beginning of the paving season as part of the Annual Certification for Previously Approved Asphalt Mixing Plants and Related Equipment.

• If requesting approval after paving season begins, submit memo, including stockpile portion of the inspection list for Annual Certification for Previously Approved Asphalt Mixing Plants and Related Equipment, to Division of Materials.

• Reports of the tests prescribed above using the Stockpile <INSERT NAME> document.

• A drawing of the plant site showing the location of the stockpile to be approved *and all other stockpiles on the premises*

Mail, deliver or email the request form, with test reports and site drawing, to:

Kentucky Transportation Cabinet Division of Materials ATTN: Asphalt Branch Manager 1227 Wilkinson Boulevard Frankfort, Kentucky 40601

Robert.Semones@ky.gov

IIE. Tests and inspections by the Department

The Department shall have the right to observe the collection of samples, or to perform the sampling and testing as a verification of contractor submittal. As a condition of approval, the Department may at any time inspect and sample RAP stockpiles for which approval has been requested and may perform additional quality control tests to determine the consistency and quality of the material.

The approval letter issued by the Department will include any results of verification testing performed by the Cabinet. The approved contractor results should be used by mix design technicians in the design calculations.

III. RAP STOCKPILE TIERED MANAGEMENT AND EFFECTIVE BINDER CONTENT

The stockpile management and approval requirements will be tiered based on the maximum cold feed percentages as defined in this section and Table 1. below.

| Міх Туре | 0- <u>≤</u> 12% | 12- <u><</u> 20% | 20- <u><</u> 35% |
|----------|-----------------|---------------------|---------------------|
| Surface | Tier 1 | Tier 2 | Tier 3 |
| Base | Tier 1 | Tier 2 | Tier 3 |

Table 1. Tiered Testing Requirements

NOTE: All asphalt mixes and binder selection will be subject to Section 409 of the current Standard Specifications.

The following requirements will apply based on the percentage of RAP in the mix.

Tier 1

Tier 1 mixes (less than or equal to 12% RAP) will be subject to the requirements of sections IIA, IIB, and IIC.

Tier 2

Tier 2 mixes (12% to less than 20% RAP) will be subject to the requirements of Section II in its entirety and Table 2 requirements.

Tier 3

Tier 3 Asphalt Base mixes with 20% to less than 35% RAP, Tier 3 Asphalt Surface mixes with 20% to less than 30% RAP will be subject to Section II in its entirety and Table 2 requirements.

IV. MAXIMUM PERCENTAGE OF RAP ALLOWED

The Maximum Percent of RAP allowed in mix designs shall be the lowest percentage determined by the gradation and asphalt content of the RAP, as established under the criteria below, and requirements listed in Section III.

Limits according to range in gradation and bitumen content

The Maximum Percent of RAP Allowed, based on gradation and asphalt content, shall be determined by the Department using the standard deviation of these values. This standard deviation will be calculated using data provided by the contractor from at least five samples. While the contractor is required to provide the data from these tested samples, the Department retains the discretion to perform its own sampling and testing to support or verify its findings. An apparent outlier shall not be considered in determining these ranges. Where one result appears to be unrepresentative of the whole, two or more additional samples shall be tested. The outlying value of all tests shall then be excluded from the range. The maximum percentage of RAP allowable shall be the lowest percentage determined according to Table 2 below.

| Standard Deviation as calculated above: | | | | | | |
|--|---------------------------------|-----------------------------------|--|--|--|--|
| | Surface | | | | | |
| % asphalt content | asphalt content < 0.4 < 0.5 | | | | | |
| % passing No. 200 sieve < 1.25 < 1.5 | | | | | | |
| % passing Median Sieve | < 4.0 | < 5.0 | | | | |
| | Allowable RAP Cold Feed % | | | | | |
| | Tier 3 - 20%-30% | Tier 3 - 20%-30% Tier 2 - 12%-20% | | | | |
| | Base | | | | | |
| % asphalt content | < 0.5 | < 0.75 | | | | |
| % passing No. 200 sieve | < 1.5 | < 2.25 | | | | |
| % passing Median sieve | < 5.0 | < 7.0 | | | | |
| | Alle | Allowable RAP Cold Feed % | | | | |
| Tier 3 - 20%-35% Tier 2 - 12%-20% Tier 1 - 0%-12 | | | | | | |

| Table 2. Maximum | Percent RAP A | ccording to Va | riability in Test | Results |
|------------------|---------------|----------------|-------------------|---------|
| | | | | |

NOTE: These allowances notwithstanding, the Contractor is required to maintain the mixture within the Mixture Control Tolerances of Kentucky Method 443.

The percentage allowable in mix designs shall be limited to meet the design criteria for viscosity established in the Standard Specifications.

V. GENERAL STOCKPILE REQUIREMENTS AND REPLENISHMENT

V.A. Single Pavement Source

Early approval of material from a single pavement source. When a new stockpile is to consist entirely of millings removed from a single existing pavement, the stockpile may be approved based on samples taken during the milling and processing operations, prior to completion of milling. The initial stockpile may be approved as either a new stockpile or a new stockpile in continual replenishment status.

For continual replenishment status, samples shall be taken from the processed stockpile after it reaches 1,000 tons. A total of five initial samples, plus one additional sample for every 1,000 tons, is required. As prescribed in Part II above, the contractor shall test all samples and deliver the test results, together with a letter request for approval in Continual Replenishment status, to the address indicated. The stockpile shall be subject to initial approval as prescribed above in Part II. Once approved, it may be replenished without further approvals as provided in Part VII below.

V.B. Heterogeneous or contaminated material

Asphalt pavement millings containing traffic detection loops, raised pavement markers, or other debris must be separated and excluded before stockpiling RAP for approval for use in KYTC asphaltic concrete mixtures.

No material other than RAP from an approved stockpile shall be included in mixtures for State projects. The following materials are specifically excluded:

• Material contaminated with foreign matter such as liquids, soil, concrete, or debris

• Plant waste, especially waste containing abnormal concentrations of bitumen, drum build-up, or material from spills or plant clean-up operations

The following materials shall not be added to or placed in proximity to an approved stockpile but may be accumulated in a separate stockpile and submitted for approval according to Part III:

- Production mixtures returned to the plant for any reason.
- Mis-proportioned mixtures, especially those generated at start-up.

VI. REPLENISHMENT OF STOCKPILES

An approved RAP stockpile may be replenished with Department approval, provided the replenishment material meets all necessary requirements for approval and maintains uniformity in gradation and asphalt content as outlined in this document.

VI.A. Procedure and approval criteria

The procedure for requesting approval of a stockpile replenishment, that is not in continual replenishment status, shall be the same as for approval of an original stockpile, and the material for the replenishment shall meet all criteria for approval as a new stockpile. RAP proposed for replenishment shall be sampled and tested by the Contractor for gradation and asphalt cement as prescribed in Section II above. The Laboratory shall

review these results and provide approval for use in Department asphalt mix designs, according to Table 2 above.

VI.B. Effect of replenishment on existing approved mix designs

Replenishment of a stockpile may render certain mix designs invalid, depending on the percent RAP allowed in the design and on the difference in average properties between the old and new stockpiles. A replenished stockpile may be used as the RAP ingredient in an existing approved design provided that:

1. The Maximum Percent Allowed for the replenishment stockpile equals or exceeds the percent RAP called for in the mix design. In no case may the Maximum Percent Allowed be exceeded.

However, if a mix design calls for up to 5.0 percent more than the Maximum Percent Allowed for the replenishment, the *design* may be adjusted, with approval, to use the lower percent allowed, provided that the production mixture continues to meet all acceptance criteria. For example, a design which calls for 20 percent RAP may be adjusted and produced with 15 percent if it continues to meet for acceptance.

VII. CONTINUAL REPLENISHMENT WITHOUT RE-APPROVAL

At the request of the contractor, a previously approved stockpile may be placed in Continual Replenishment Status and may be replenished any number of times without re-approval provided that:

- 1. Replenishment is within six months of the last stockpile addition.
- 2. The contractor shall continue to monitor and test the materials added to the stockpile and shall forward these results to the Division of Materials for every 1,000 tons of RAP added to the stockpile.
- 3. The contractor must certify that replenishment materials are free of contaminants.
- 4. The Department shall be notified by letter to the Director of the Division of Materials that the stockpile is being replenished on a continual basis.
- 5. The RAP Maximum Percent Allowed for continual replenishment shall be limited by Sections III and IV.

Note: Upon request, one 20-pound sample bag of RAP for each Continual Replenishment Stockpile shall be submitted to the Division of Materials for petrographic analysis every 12 months.

The Department may inspect, sample, and test such stockpiles at its discretion and may, upon determining that the stockpile is unsuitable, withdraw approval of the material and all mix designs which include it. Approval of the stockpile may be withdrawn at any time based upon extreme or erratic ingredient proportions, unsuitable ingredients, or poor performance, as determined by the Division of Materials, Asphalt Branch. The Department will conduct periodic comparison testing on the opposite quarters of samples submitted by the Contractor for special replenishment approval category. The approval of the stockpile may be withdrawn if

erroneous information was found on the contractor's testing and/or improper sampling procedures were involved after a thorough investigation.

VIII. DEPLETION OF STOCKPILE AND EXPIRATION OF APPROVAL

When a stockpile has been fully depleted, the Contractor may replenish it within 24 months after the date of depletion; a depleted stockpile not replenished after 24 months will be removed from the approved list and may not be replenished.

Approval of a stockpile may be withdrawn if, in the finding of the Division of Materials, Asphalt Branch, the total amount of material used in new mixtures equals the total tonnage of the original stockpile plus all approved replenishments. Six years from the original approval of a stockpile or from its most recent replenishment, a stockpile shall be presumed to be depleted, and its approval shall expire. This shall apply to all stockpiles, regardless of status or history of use.

IX. RECORDS

The Contractor shall maintain records at the plant site on all RAP stockpiles. These records shall be available for inspection by representatives of the Department and shall include the following:

• All test results.

• The Department's approval letter for each stockpile and replenishment, together with the Contractor's requests for approval and all data submitted therewith.

• A current drawing of all stockpile locations at the plant site, including unapproved stockpiles, showing stockpile numbers of all stockpiles approved for State work.

X. RELOCATION OF STOCKPILE

If material from an approved RAP stockpile is to be moved to another location, the contractor shall seek approval from the Department prior to its further use on State projects. A letter request shall be submitted to the Division of Materials indicating the current stockpile location, the total quantity of material to be moved, and the amount, if any, to remain in the current location. The Division of Materials will issue an approval letter applicable to the new location.

June 18, 2025

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SENSOR LOCATIONS ARE SCHEMATIC ONLY AND SHALL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SOUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET AND A MINIMUM OF 2' 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 CABINETS.

INSTALL ONE (1) $1^{1}/4^{\prime\prime}$ CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

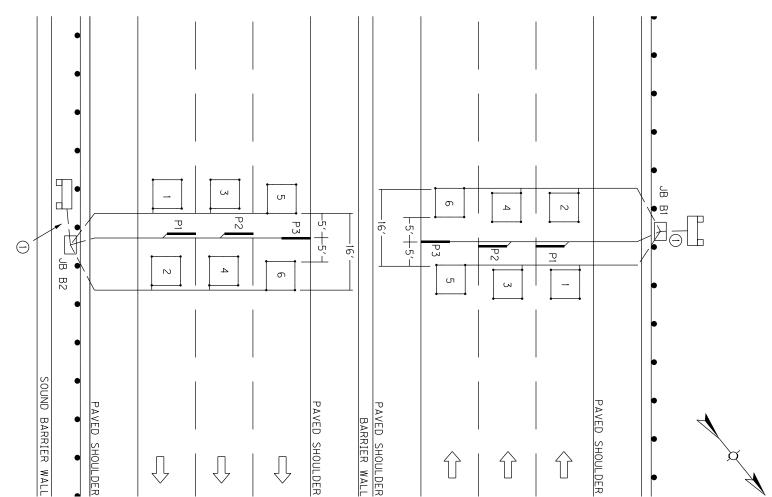
INSTALL TWO (2) TYPE B JUNCTION BOXES (JB BI AND B2).

INSTALL TWO (2) 20"X20"X8" CABINET MOUNTED TO TWO (2) WOOD POSTS EACH.

REMOVE ANY AND ALL EX. TRAFFIC DATA COLLECTION EQUIPMENT AND DISPOSE OF OFF THE JOBSITE.

CODED NOTE:

() INSTALL ONE (1) 2" CONDUIT.



Permanent Traffic Data Acquisition Station Estimate Of Quantities

| Bid Item Code | Description | Unit | Quantity |
|---------------|--|--------|----------|
| 4793 | CONDUIT 1 ¹ / ₄ INCH | LIN FT | 80 |
| 4795 | CONDUIT 2 INCH | LIN FT | 20 |
| 4811 | ELECTRICAL JUNCTION BOX TYPE B | EACH | 2 |
| 4820 | TRENCHING AND BACKFILLING | LIN FT | 90 |
| 4821 | OPEN CUT ROADWAY | LIN FT | |
| 4829 | PIEZOELECTRIC SENSOR | EACH | 6 |
| 4830 | LOOP WIRE | LIN FT | 2650 |
| 4833 | WIRE – NO. 8 | LIN FT | |
| 4834 | WIRE – NO. 6 | LIN FT | |
| 4850 | CABLE NO. 14/1 PAIR | LIN FT | |
| 4871 | POLE – 35' WOODEN | EACH | |
| 4895 | LOOP SAW SLOT AND FILL | LIN FT | 600 |
| 4899 | ELECTRICAL SERVICE | EACH | |
| 4960 | REMOVE AND REPLACE SIDEWALK | SQYD | |
| 20213EC | INSTALL PAD MOUNT ENCLOSURE | EACH | |
| 20359NN | GALVANIZED STEEL CABINET | EACH | 2 |
| 20360ES818 | WOOD POST | EACH | 4 |
| 20391NS835 | ELECTRICAL JUNCTION BOX TYPE A | EACH | |
| 20392NS835 | ELECTRICAL JUNCTION BOX TYPE C | EACH | |
| 20468EC | ELECTRICAL JUNCTION BOX 10x8x4 | EACH | |
| 21543EN | BORE AND JACK CONDUIT – 2 INCH | LIN FT | |
| 23206EC | INSTALL CONTROLLER CABINET | EACH | |
| 24963ED | LOOP TEST | EACH | |

PERMANENT TRAFFIC DATA ACQUISITION STATIONS ESTIMATE OF QUANTITIES

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.

Revised February 2025

Material, Installation, and Bid Item Notes for Permanent Traffic Data Acquisition Stations

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 $\frac{3}{4}$ 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 0.38B 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):
 Water Absorption: 0.03 gm/cc (maximum):
 - ASTM D 5249 test method ASTM C 1016 test method
 - Page 4 of 28

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Material, Installation, and Bid Item Notes for Permanent Traffic Data Acquisition Stations

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:

| ٠ | Cure Time | 20 minutes max. |
|---|----------------------------------|--------------------------|
| ٠ | Density | 64.4 kg/m3; 6 lbs/ft3 |
| • | Compressive Strength (ASTM 1691) | 13.8 MPa; 330 or 300 psi |

•

- Tensile Strength (ASTM 1623)
- Flexural Strength (ASTM D790)
- Service Temperature

15.9 MPa; 270 or 250 psi 14.5 MPa; 460 or 450 psi -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 $\frac{3}{4}$ inch side and end knockouts and a $1\frac{1}{2}$ 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 $\frac{1}{4}$ inch wood screws.

2.14.2. Mounting Strap for Pole Mount Cabinet

Mounting strap for pole mount cabinet shall be $\frac{3}{4}$ 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 screws, hinge(s) and pin(s) and shall be equipped with a 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 ³/₄ 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 |
| | Deicing Chemicals: Gasoline: Hydraulic Brake Fluid: |

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 or UC4B 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.

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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 38°F.

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.*

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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

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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 connector to connect the conduit to the top of the meter base and service disconnect.

Install a rigid ³/₄ inch conduit with three 8 AWG service conductors from the cabinet, through the service disconnect to the meter base and a 1¹/₄" 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 $1-\frac{3}{4}$ " 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

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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 ³/₄ inch rigid conduit from enclosure base to

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

Install one $\frac{3}{4}$ 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 $1-\frac{3}{4}$ " conduit form cabinet to ground rod.

Install one ³/₄ 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) $2\frac{1}{2}$ 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 1¹/₂ inch core hole at each corner and use a chisel to smooth corners to prevent sharp bends in the wire.
- Clean <u>ALL</u> 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 1¹/₂ inch hole on a 45° 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.

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- 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 $1\frac{1}{2}$ 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 a minimum of 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. Loop Test

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 $\frac{1}{2}$ 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.

- <u>It is strongly recommended that a ³/₄ inch wide diamond blade be used for cutting the slot, or that blades be ganged together to provide a single ³/₄ inch wide cut. The slot shall be wet cut to minimize damage to the pavement.</u>
- Cut a slot ³/₄ 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 ¹/₂ 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 ¹/₄ 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 <u>ALL</u> 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 1¹/₂ inch hole on a 45° 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. <u>Piezo lead-in cable shall not be spliced.</u>
- 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.
- <u>Use one bucket of sensor grout per piezo installation</u>. 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 $1\frac{1}{2}$ 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 $\pm 20\%$ 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.

Material, Installation, and Bid Item Notes for Permanent Traffic Data Acquisition Stations

3.20. Signs

Furnish: Signs; sign standards; hardware.

Construction of signs 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. <u>Permission to splice shall be determined by the Division of Planning</u> 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 <u>prior written approval</u> 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.

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 foxtailmillet; 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.

3.25. Remove and Replace Sidewalk

Furnish: Lumber, stakes, nails or screws, and concrete.

Remove existing sidewalk to install rigid conduit from edge of roadway to nearest junction box or cabinet. Form, pour and finish concrete in place of old existing sidewalk making sure to replace the expansion joints in their respective locations. Concrete shall conform to the *Kentucky Standard Specifications for Road and Bridge Construction* for sidewalks.

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

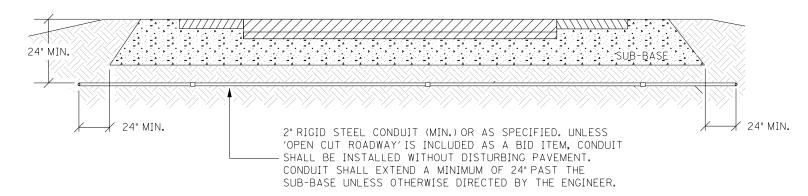
Wood Post shall include furnishing and installing wood post as specified. This item shall include excavation, furnishing and placing concrete (if required), backfilling around the post, and restoration of disturbed areas to the satisfaction of the engineer. Wood Post will be measured in individual units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

4.19. Remove and Replace Sidewalk

Remove and Replace Sidewalk shall include removing existing sidewalk to install conduit and/or junction box (if required) and replacing old existing sidewalk with new sidewalk after installation of required items. This item includes removing old sidewalk and disposing of off the project and forming, pouring and finishing the new sidewalk after installation of required items.

4.20. Loop Test

Loop Test includes conducting 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.

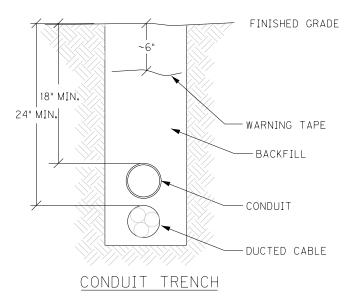


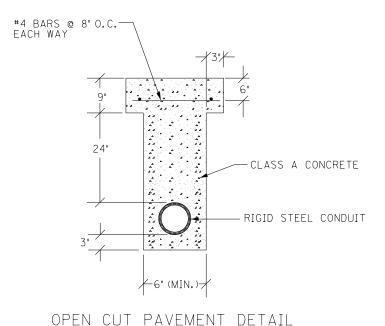
CONDUIT UNDER PAVEMENT

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.

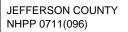
CONTRACTOR SHALL PLACE BACKFILL IN LIFTS (9" MAX.) COMPACT BACKFILL, AND RESTORE DISTURBED AREA TO THE SATISFACTION OF THE ENGINEER

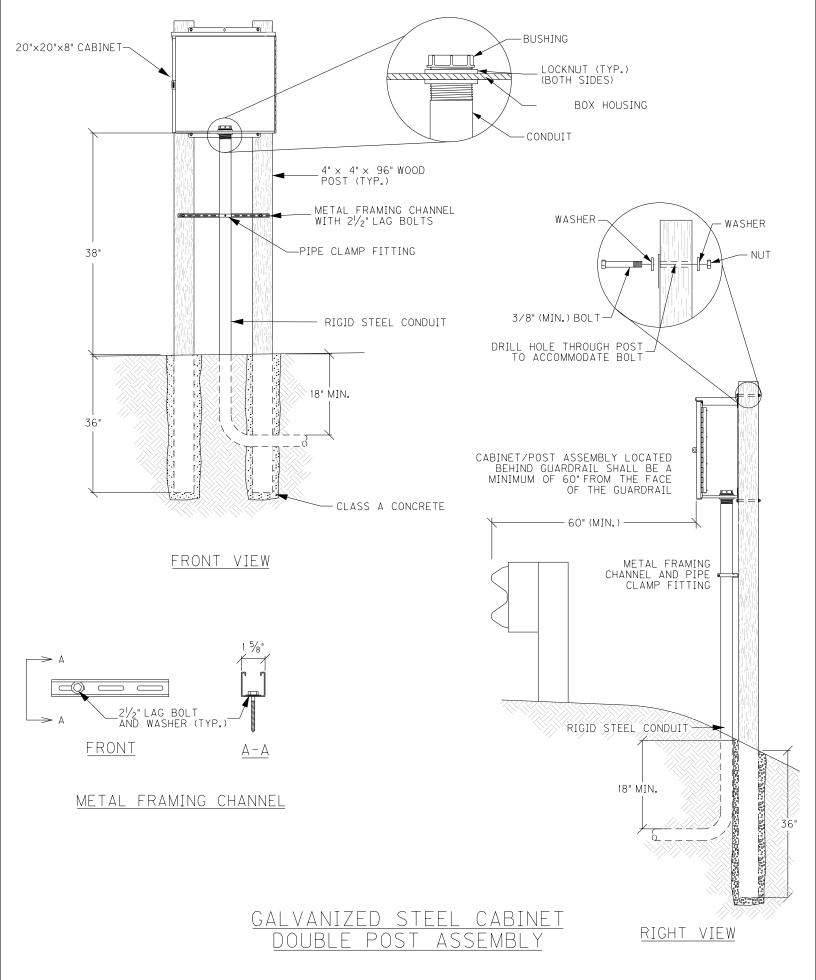
CONTRACTOR SHALL INSTALL UNDERGROUND UTILITY WARNING TAPE ABOVE CONDUIT AS SHOWN.

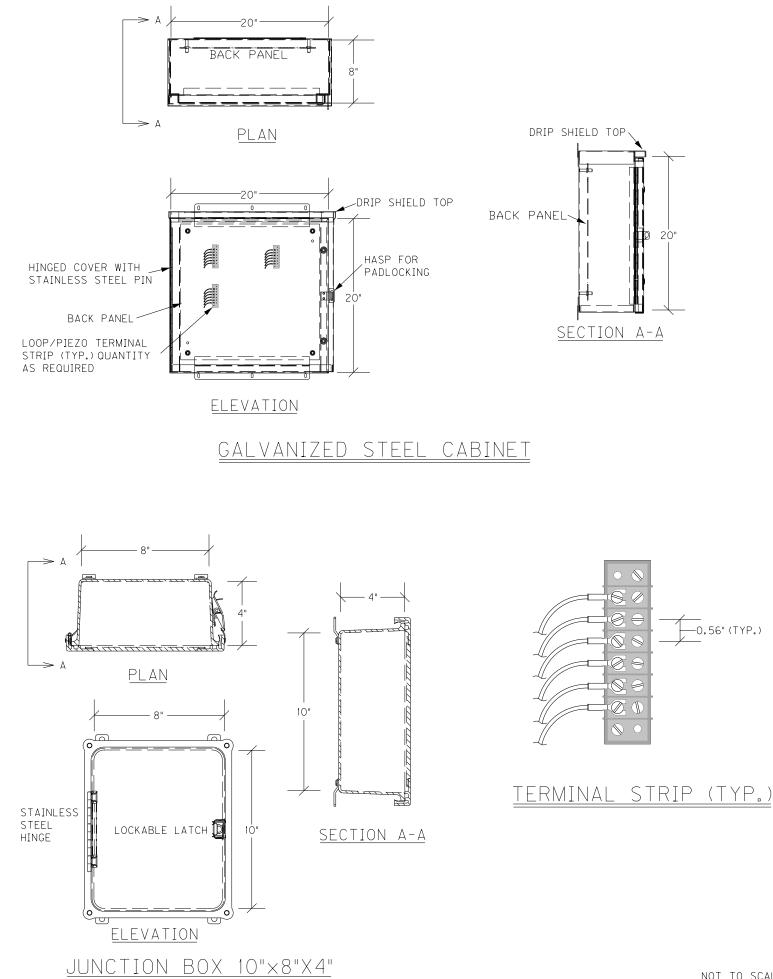




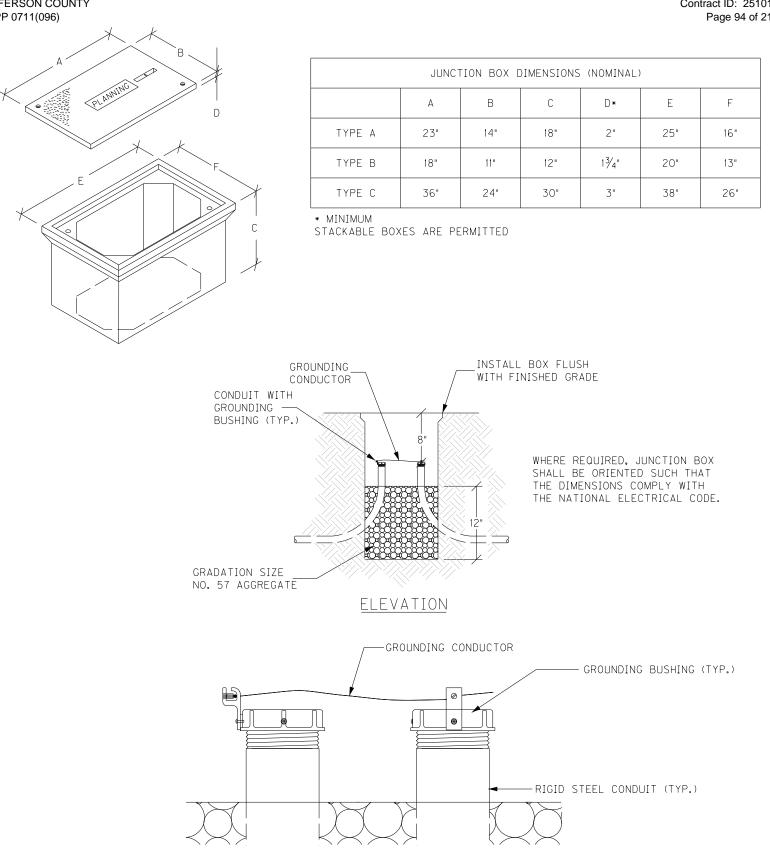
CONDUIT INSTALLATION







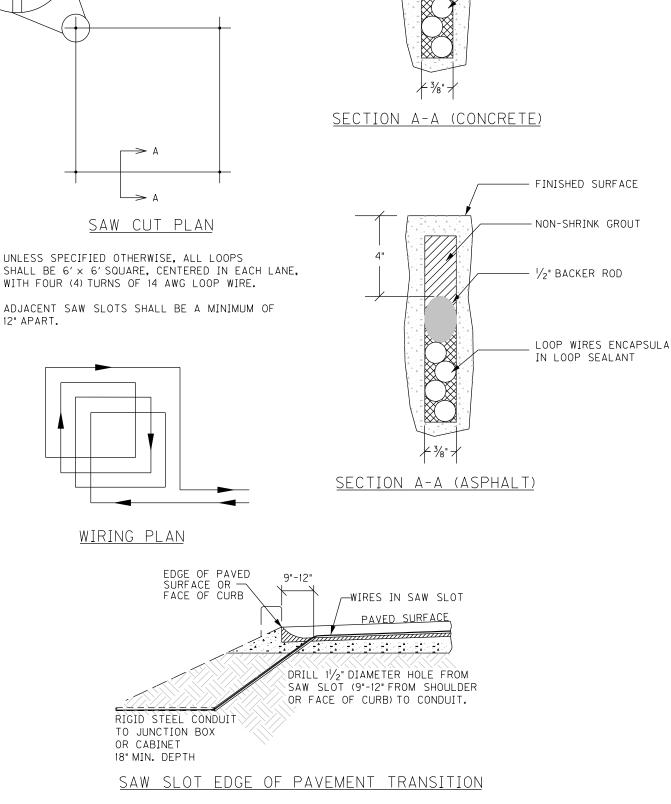
JEFFERSON COUNTY NHPP 0711(096)



GROUNDING DETAIL

JUNCTION BOX - TYPE A, TYPE B, TYPE C

INDUCTIVE LOOP DETECTOR



JEFFERSON COUNTYOUT BEYOND CORNER NHPP 0711(096)ACHIEVE FULL DEPTH CORE DRILL 1 $\frac{1}{2}$ " HOLE AND/OR CHISEL CORNER TO SLOT DEPTH TO ELIMINATE SHARP EDGES ⅔"SAW SLOT

1/2" BACKER ROD LOOP WIRES ENCAPSULATED IN LOOP SEALANT LOOP WIRES ENCAPSULATED

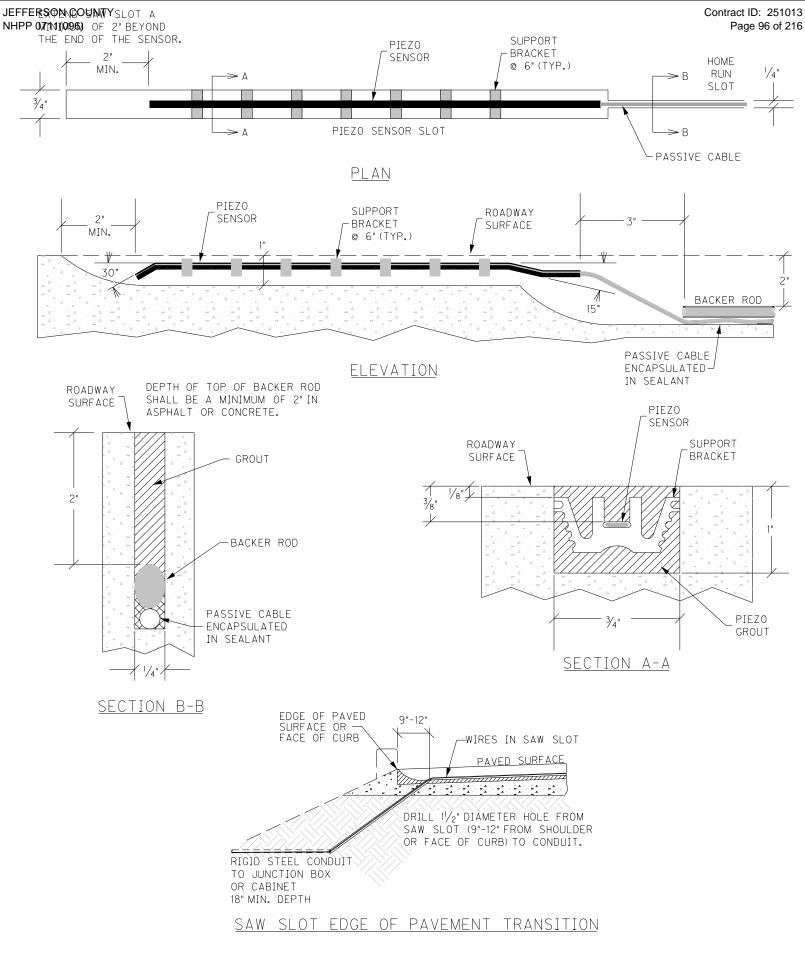
FINISHED SURFACE

NON-SHRINK GROUT

Contract ID: 251013

Page 95 of 216

PIEZOELECTRIC SENSOR INSTALLATION



Special Note for Bridge Demolition, Renovation and Asbestos Abatement

If the project includes any bridge demolition or renovation, the successful bidder is required to notify Kentucky Division for Air Quality (KDAQ) via filing of form (DEP 7036) a minimum of 10 working days prior to commencement of any bridge demolition or renovation work.

Any available information regarding possible asbestos containing materials (ACM) on or within bridges to be affected by the project has been included in the bid documents. These are to be included with the Contractor's notification filed with the KDAQ. If not included in the bid documents, the Department will provide that information to the successful bidder for inclusion in the KDAQ notice as soon as possible. If there are no documents stating otherwise, the bidders should assume there are no asbestos containing materials that will in any way affect the work.



COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET

transportation.ky.gov

Jim Gray SECRETARY

Asbestos Inspection Report

To: Donna Hardin

District: 5

Date: October 28, 2020

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Jefferson 05-0048.10

Structure ID: 056B00063L

Structure Location: I-71 over Mockingbird Valley Road

Sample Description: Any suspect materials collected were negative for asbestos.

Inspection Date: October 23, 2020

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%. No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (<u>DEP7036Form</u>) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

Andy Beshear

MRS, INC.

MRS, Inc. Analytical Laboratory Division

332 West Broadway / Suite # 902 Louisville, Kentucky - 40202 - 2133

(502) 495-1212 Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

| Analysis N# | # 210273 | Address: | Jefferson County - 056 B00063 L |
|--------------|---------------|----------|---------------------------------|
| Client Name: | КҮТС | | |
| Sampled By: | O'Dail Lawson | | |

| | | | % | FIBROUS | ASBESTOS | | % NON-ASBESTOS FIBERS | | | | | | |
|-------|-------------------------|-----------|--------------|---|--|---|------------------------|--|---|--|--|--|--|
| Color | Layered | Fibrous | Chrysotile | Amosite | crocidolite | Others | Cellulose | Fiberglass | Syn. Fiber | Other/Mat. | | | |
| Black | Yes | No | | | | None | | | | 100% | | | |
| White | Yes | No | 2% | (To Be | Point Cou | inted) | 2% | | | 96% | | | |
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| | Color Black White | Black Yes | Black Yes No | ColorLayeredFibrousChrysotileBlackYesNo | ColorLayeredFibrousChrysotileAmositeBlackYesNo | Color Layered Fibrous Chrysotile Amosite crocidolite Black Yes No | Black Yes No None None | ColorLayeredFibrousChrysotileAmositecrocidoliteOthersCelluloseBlackYesNoImage: Color of the state of t | ColorLayeredFibrousChrysotileAmositecrocidoliteOthersCelluloseFiberglassBlackYesNoImage: Second Seco | ColorLayeredFibrousChrysotileAmositecrocidoliteOthersCelluloseFiberglassSyn. FiberBlackYesNoImage: Second | | | |

Methodology : EPA Method 600/R-93-116

| Date Analyze | d : | 27-Oct-20 |
|--------------|-----|-------------------|
| Analyst | : | Winterford Mensah |

The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S Government. Partial Reproduction of any part of this report is strictly prohibited. Samples shall be retained for (30) days.

AIHA # 102459

AJHA #1 02459

| ddress: 200 Mero Street Sample ID: # 63 - 2 5th Floor West Sampled: 23-Oct-20 Frankfort, Kentucky Received: 23-Oct-20 40622 Analyzed: 27-Oct-20 - Point Co Attention : O'Dail Lawson Bulk Sample Analysis ampled By : O'Dail Lawson sampled By : O'Dail Lawson ield Description: Ifferson County - Item # 056 B00063 L ield Description: Trowel On Sealant aboratory Description: White To Gray Color Material white To Gray Color Material Sample Is Negative Sestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative sheets of Fibrous Materials : 0.25 % Cellulose 0.25 % Binders 99.50 % emarks: The sample was analyzed for asbestos content following the EPA Method (600/R-93/116). The test relates only to the items tested. This report door represent endorsement by NVLAP or any agency of the U.S. Government | | Broadway, S | Suite # 902 | Phone # : | (502) 495-1212 |
|---|------------|-------------------------|---|---|--|
| Address: 200 Mero Street Sample ID: # 63 - 2 5th Floor West Sampled: 23-Oct-20 Frankfort, Kentucky Received: 23-Oct-20 40622 Analyzed: 27-Oct-20 - Point Co Attention : O'Dail Lawson Bulk Sample Analyzed: 27-Oct-20 - Point Co Bulk Sample Analyzed: 27-Oct-20 - Point Co Attention: Facility/Location: Jefferson County - Item # 056 B00063 L Image: County - Item # 056 B00063 L ield Description: Trowel On Sealant Image: County - Item # 056 B00063 L Image: County - Item # 056 B00063 L aboratory Description: White To Gray Color Material Image: County - Item # 056 B00063 L Image: County - Item # 056 B00063 L Isbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative Image: County - Item # 056 B00063 L Isbestos Fibrous Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative Image: County - Item # 056 B00063 L Isbestos Fibrous Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative Image: County - Item # 056 B00063 L Isbestos Fibrous Materials: Cellulose 0.25 % Image: County - Item # 056 B00063 L Isbestos Fibrous Materials: Cellulose 0.25 % | ouisville, | Kentucky 40 | 1202 | E-Mail Address : (| CEOMRSInc@AOL.Com |
| Sth Floor West Sampled: 23-Oct-20 40622 Analyzed: 27-Oct-20 - Point Co Attention : O'Dail Lawson Bulk Sample Analysis Sampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00063 L Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material Sample Is Negative Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | Client: | күтс | | Project No: | # 210273 B |
| Frankfort, Kentucky Received: 23-Oct-20 40622 Analyzed: 27-Oct-20 - Point Co Attention : O'Dail Lawson Bulk Sample Analysis Sampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00063 L Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | Address: | 200 Mero | Street | Sample ID: | # 63 - 2 |
| 40622 Attention : O'Dail Lawson Bulk Sample Analysis Sampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00063 L Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | 5th Floor \ | Nest | Sampled: | 23-Oct-20 |
| Attention : O'Dail Lawson Bulk Sample Analysis Sampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00063 L Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | Frankfort, | Kentucky | Received: | 23-Oct-20 |
| Bulk Sample Analysis Sampled By O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00063 L Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | | 40622 | Analyzed: | 27-Oct-20 - Point Count - |
| Sampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00063 L Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | Attention | O'Dail Lawson | | |
| Sampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00063 L Field Description: Trowel On Sealant .aboratory Description: White To Gray Color Material .aboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | | | | |
| Facility/Location: Jefferson County - Item # 056 B00063 L Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | | Bulk Sar | mple Analysis | |
| Facility/Location: Jefferson County - Item # 056 B00063 L Field Description: Trowel On Sealant aboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | Sampled I | B.v • | | | |
| Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | - | - | | n # 056 B00063 L | |
| Laboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | • | | | | |
| White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | • | | | |
| Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative Non-Asbestos Fibrous Materials : Cellulose 0.25 % Binders 99.50 % Remarks: The sample was analyzed for asbestos content following the EPA Method (600/R-93/116). The test relates only to the items tested. This report doe represent endorsement by NVLAP or any agency of the U.S. Government | | , | | laterial | |
| Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | | | | |
| Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | | | | |
| Non-Asbestos Fibrous Materials : <u>Cellulose</u> <u>Binders</u> <u>99.50 %</u> Remarks: The sample was analyzed for asbestos content following the EPA Method (600/R-93/116). The test relates only to the items tested. This report doe represent endorsement by NVLAP or any agency of the U.S. Government | Asbestos | Materials: | | | |
| Cellulose 0.25 % Binders 99.50 % Remarks: The sample was analyzed for asbestos content following the EPA Method (600/R-93/116). The test relates only to the items tested. This report doe represent endorsement by NVLAP or any agency of the U.S. Government | | | Chrysotile = 1/400 = 0. | 25 % (< 1 %) Sam | ple Is Negative |
| Cellulose 0.25 % Binders 99.50 % Remarks: The sample was analyzed for asbestos content following the EPA Method (600/R-93/116). The test relates only to the items tested. This report doe represent endorsement by NVLAP or any agency of the U.S. Government | | | | | |
| Cellulose 0.25 % Binders 99.50 % Remarks: The sample was analyzed for asbestos content following the EPA Method (600/R-93/116). The test relates only to the items tested. This report doe represent endorsement by NVLAP or any agency of the U.S. Government | | | | | |
| Cellulose 0.25 % Binders 99.50 % Remarks: The sample was analyzed for asbestos content following the EPA Method (600/R-93/116). The test relates only to the items tested. This report doe represent endorsement by NVLAP or any agency of the U.S. Government | | | | | |
| Binders 99.50 % Remarks: The sample was analyzed for asbestos content following the EPA Method (600/R-93/116). The test relates only to the items tested. This report doe represent endorsement by NVLAP or any agency of the U.S. Government | | stos Fibrous | Materials : | | |
| Remarks: The sample was analyzed for asbestos content following the EPA Method (600/R-93/116). The test relates only to the items tested. This report doe represent endorsement by NVLAP or any agency of the U.S. Government | Non-Asbe | | Cellulose | | 0.25 % |
| (600/R-93/116). The test relates only to the items tested. This report doe represent endorsement by NVLAP or any agency of the U.S. Government | Non-Asbe | | | | |
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| (600/R-93/116). The test relates only to the items tested. This report doe represent endorsement by NVLAP or any agency of the U.S. Government | Non-Asbe | | Binders | | 99.50 % |
| represent endorsement by NVLAP or any agency of the U.S. Government | | | | | |
| Anglusta Minterfeed Mensela Deviewed Dev | | - | e was analyzed for asbes | | wing the EPA Methodology |
| Analyst: Winterford Mensah Reviewed By: | | (600/R-93 | e was analyzed for asbes /116). The test relates o | only to the items t | wing the EPA Methodology tested. This report does not |
| | | (600/R-93 | e was analyzed for asbes /116). The test relates o | only to the items t | wing the EPA Methodology tested. This report does not |
| Signature | Remarks: | (600/R-93) represent | e was analyzed for asbes /116). The test relates o endorsement by NVLAF | only to the items t or any agency of | wing the EPA Methodology tested. This report does not the U.S. Government. |
| | | (600/R-93) represent | e was analyzed for asbes /116). The test relates o | only to the items t | wing the EPA Methodolog tested. This report does no the U.S. Government. |

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| NHPP 0711(| Received a | Relinquished By: | Received By: | Relinquished By: | | | | 63.2 | 63-1 | Sample II | Project or | Phone: PO#: | <u>nuu</u> u vaa. | Address. | |
| JEFFERSON NHPP 0711(| at Lab By: | hed By: | By: Mindy to Mine | hed By: | | | | Trovel on Sealant | Joint Compound | Sample ID Sample Description | Project or Subject Reference Jefferson | 502-564-7250 Fax: 502-564-5 | KY | O'Dail Lawson <u>o'dail.lawson@ky.gov</u> KYTC 200 Marc Streat | CABINEI |
| | | | N. | | | | | K | 2/22/01 | Coll | 056 300 | 502-564-5655 N/A = Not Applicable | FTD = Filt | | |
| | Date/Time: | Date/Time: | Date/Time: | Date/Time: | | | | 4 | 10:45 | Collected .e Time | B00063L | t Applicable | FTD = Filter Tampering or Damaged | nation | (5) |
| KYTC COC | | | 20 | | | 4 | | | Assenn | | | | or Damaged | KY TRANS CABINET | 02) 564-7250 |
| ÖC | | | | 1 | | | | | ballc | Analysis Requested 🕖 | Olan Lum | Samplers (signature) | | | (502) 564-7250 fax (502) 564-5655 |
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| Page 1 | | | | | | | | | N/A | Cont. Type Preservative | | | | I-71 over Melingbire dally leavy. | |
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Chain of Custody Record

Kentucky Transportation Cabinet 200 Mero Street, 5th Floor West Frankfort, Kentucky 40622

KENTUCKY TRANSPORTATION

Contract ID: 251013 Page 101 of 216

| 3 | Training was in a Department of E Arkansas Depart Accreditation un Conducted at: 1 | T | has on 03-11-2 | • | Certification Nu | | |
|-----|--|------------------------------|--|----------------------|--|---|--|
| | Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management, Tennessee Department of Environment & Conservation and The Arkansas Department of Environmental Quality. The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA). Conducted at: 1520 Alliant Ave., Louisville, KY Mame - Fraining Manager | ASBESTOS INSPECTOR REFRESHER | has on 03-11-2020, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course. | O'Dail Lawson | Certification Number: ETC-AIR-031120-00387 | ENVIRONMENTAL TRAINING CONCEPTS, INC P.O Box 99603 Louisville, KY 40269 (502)640-2951 | Reference of the second s |
| Es. | R | 15 | OR. | | | | 1.2. |



COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET

transportation.ky.gov

Jim Gray SECRETARY

Asbestos Inspection Report

To: Donna Hardin

District: 5

Date: October 28, 2020

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Jefferson 05-0048.10

Structure ID: 056B00166L

Structure Location: I-71 over Edith Road

Sample Description: Any suspect materials collected were negative for asbestos.

Inspection Date: October 23, 2020

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%. No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (<u>DEP7036Form</u>) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

Andy Beshear

MRS, INC.

MRS, Inc. Analytical Laboratory Division

332 West Broadway / Suite # 902 Louisville, Kentucky - 40202 - 2133

(502) 495-1212 Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

| Analysis N# | # 210274 | Address: | Jefferson County - 056B00166 L |
|--------------|---------------|----------|--------------------------------|
| Client Name: | КҮТС | _ | |
| Sampled By: | O'Dail Lawson | | |

| | | | | % | FIBROUS | ASBESTOS | | % N | ON-ASBES | TOS FIBEI | RS |
|-----------|-------|---------|---------|------------|---------|-------------|--------|-----------|------------|------------|------------|
| Sample ID | Color | Layered | Fibrous | Chrysotile | Amosite | crocidolite | Others | Cellulose | Fiberglass | Syn. Fiber | Other/Mat. |
| # 166-1 | White | Yes | No | 2% | (To Be | Point Cou | inted) | 2% | | | 96% |
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Methodology : EPA Method 600/R-93-116

Date Analyzed : 27-Oct-20 :

Analyst

Winterford Mensah

The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S Government. Partial Reproduction of any part of this report is strictly prohibited. Samples shall be retained for (30) days.

AIHA # 102459

AJHA #1 02459

| ampled By : O'Dail Lawson O'Da | n |
|--|---------|
| Address: 200 Mero Street Sample ID: # 166 - 1 5th Floor West Sampled: 23-Oct-20 Frankfort, Kentucky Received: 23-Oct-20 40622 Analyzed: 27-Oct-20 - Point O Attention : O'Dail Lawson Bulk Sample Analysis Sampled By : O'Dail Lawson | Count - |
| Sth Floor West Sampled: 23-Oct-20 Frankfort, Kentucky Received: 23-Oct-20 40622 Analyzed: 27-Oct-20 - Point O Attention : O'Dail Lawson Bulk Sample Analysis Sampled By : O'Dail Lawson | Count - |
| Frankfort, Kentucky Received: 23-Oct-20 40622 Analyzed: 27-Oct-20 - Point (Attention : O'Dail Lawson Bulk Sample Analysis Sampled By : O'Dail Lawson | Count - |
| 40622 Analyzed: 27-Oct-20 - Point (Attention : O'Dail Lawson Bulk Sample Analysis Bulk Sampled By : O'Dail Lawson | Count - |
| Attention : O'Dail Lawson Bulk Sample Analysis Sampled By : O'Dail Lawson | Count - |
| Bulk Sample Analysis Sampled By : O'Dail Lawson | |
| Sampled By : O'Dail Lawson | |
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| | |
| Facility/Location: Jefferson County - Item # 056 B00166 L | |
| Field Description: Trowel On Sealant | |
| Laboratory Description: | |
| White To Gray Color Material | |
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| Asbestos Materials: | |
| Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | |
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| Non-Asbestos Fibrous Materials : | |
| Cellulose 0.25 % | |
| Binders 99.50 % | |
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| JEFFERSON | | | | | | | | | | | | | |
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| NHPP 0711(0 | Received at Lab By: | Relinquished By: | Received By: | Relinquished By: | | | 1-991 | Sample ID | Project or | Phone: PO#: | Address: | | |
| | at Lab By: | ned By: | By: Himpes Mar | ned By: | | | Travel on Sealant | Sample ID Sample Description | Project or Subject Reference | 502-564-7250 Fax: 502-564-56 | 200 Mero Street Frankfort KY | O'Dail Lawson <u>o'dail.lawson@ky.gov</u> KYTC | |
| | | | And I | | | | 10/22/20 | Coll Date | 8 a 50 | 502-564-5655 N/A = Not Applicable | ND = Non FTD = Fil | Client Inforn Results Code: | |
| | Date/Time: | Date/Time: | Date/Time: | Date/Time: | | | 11:12 | Collected te Time | 056300166 | t Applicable | ND = None Detected FTD = Filter Tamperin | nation | |
| KYTC COC | | | 20 | | | | Asbenn | | | was of | ND = None Detected FTD = Filter Tampering or Damaged | KY TRANS CABINET | |
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| 1997. I | | | | | | | | No. of Cont. | | | | Roon | |
| | | | | | | | | Cont. Type | | | | 2 | |
| Page 1 | | | | | | | N/A | Preservative | | | | | |

Contract ID: 251013 Page 106 of 216

Chain of Custody Record

Kentucky Transportation Cabinet

KENTUCKY TRANSPORTAT CABINET

(502) 564-7250 fax (502) 564-5655

200 Mero Street, 5th Floor West Frankfort, Kentucky 40622

| Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management, Tennessee Department of Environment & Conservation and The Arkansas Department of Environmental Quality. The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA). Conducted at: 1520 Alliant Ave., Louisville, KY Name - Fraining Manager Name - Fraining Manager | ASBESTOS INSPECTOR REFRESHER | has on 03-11-2020, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course. | Certification Number: ETC-AIR-031120-00387 | ENVIRONMENTAL TRAINING CONCEPTS, INC P.O Box 99603 Louisville, KY 40269 (502)640-2951 | |
|---|------------------------------|--|--|---|--|
| Commonwealth of Kentucky, the Indiana ironment & Conservation and The I requisite training for Asbestos Expiration Date: 03-11-2021 Name Instructor | SHER | ents and passed the examination with a ourse. | 3 | | |



COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET

transportation.ky.gov

Jim Gray SECRETARY

Asbestos Inspection Report

To: Donna Hardin

District: 5

Date: October 28, 2020

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Jefferson 05-0048.10

Structure ID: 056B00167L

Structure Location: I-71 over Zorn Avenue

Sample Description: Any suspect materials collected were negative for asbestos.

Inspection Date: October 23, 2020

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%. No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (<u>DEP7036Form</u>) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

Andy Beshear

MRS, INC.

MRS, Inc. Analytical Laboratory Division

332 West Broadway / Suite # 902 Louisville, Kentucky - 40202 - 2133

(502) 495-1212 Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

| Analysis N# | # 210275 | Address: | Jefferson County - 056 B00167 L |
|--------------|---------------|----------|---------------------------------|
| Client Name: | КҮТС | - | |
| Sampled By: | O'Dail Lawson | - | |

| | | | | % | FIBROUS | ASBESTOS | | % N | ON-ASBES | TOS FIBE | RS |
|-----------|-------|---------|---------|------------|---------|-------------|--------|-----------|------------|------------|------------|
| Sample ID | Color | Layered | Fibrous | Chrysotile | Amosite | crocidolite | Others | Cellulose | Fiberglass | Syn. Fiber | Other/Mat. |
| # 167-1 | Black | Yes | No | | | | None | | | | 100% |
| # 167-2 | White | Yes | No | 2% | (To Be | Point Cou | inted) | 2% | | | 96% |
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Methodology : EPA Method 600/R-93-116

| Date Analyzed : | 27-Oct-20 |
|-----------------|-----------|
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Analyst

Winterford Mensah

The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S Government. Partial Reproduction of any part of this report is strictly prohibited. Samples shall be retained for (30) days.

AIHA # 102459

AJHA #1 02459

| ouisville, Ken lient: <u>KY</u> ddress: <u>20</u> <u>5t</u> Fra | adway, S Suite # 9 tucky 40202 TC 0 Mero Street h Floor West ankfort, Kentucky | / | Phone # : E-Mail Address : C Project No: Sample ID: Sampled: Received: | (502) 495-1212 CEOMRSInc@AOL.Com # 210275 B # 167 - 2 23-Oct-20 |
|---|---|-------------------|---|---|
| Client: <u>KY</u> Address: <u>20</u> <u>5t</u> Fra | TC 10 Mero Street h Floor West | / | Project No: Sample ID: Sampled: | # 210275 B # 167 - 2 23-Oct-20 |
| Address: 20 5t Fra | 0 Mero Street h Floor West | · | Sample ID: Sampled: | # 167 - 2 23-Oct-20 |
| 5t Fra | h Floor West | · | Sampled: | 23-Oct-20 |
| Fra | | · | - | |
| _ | ankfort, Kentucky | · | Received: | 22.0.1.22 |
| At | | | | 23-Oct-20 |
| At | | 40622 | Analyzed: | 27-Oct-20 - Point Count - |
| | tention : O'Dail La | awson | | |
| | | Bulk Sar | mple Analysis | |
| Sampled By | : O'Dail L | awson | | |
| Facility/Loca | | | n # 056 B00167 L | |
| Field Descript | | On Sealant | | |
| Laboratory De | | | | |
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| Asbestos Mat | erials: | | | |
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| Non-Asbestos | s Fibrous Materia | ls : | | |
| | Cellulos | | | 0.25 % |
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| NHPP 07 | 11(096 | Received a | Relinquished By: | Received By: | Relinquished By: | | | 67-2 | 167-1 | Sample ID | Project or | Address: Phone: PO#: | | |
| | | ıt Lab By: | ed By: | 3y: Hinterger Ma | ed By: | | | Trown (ON Spalam | Joint Cushion | Sample ID Sample Description | Project or Subject Reference Jefferson D | ero Street ort KY 4-7250 Fax: | O'Dail Lawson <u>o'dail.lawson@ky.gov</u> KYTC | TRANSPORTATION CABINET |
| | | | | | | | | t | 02122/01 | Co | 056300167 | ND = No FTD = Fi 55 N/A = No | Client Inforn Results Code: | NO |
| | | Date/Time: | Date/Time: | Date/Time: | Date/Time: | | | < | 11:07 | Collected te Time | 167 1 | ND = None Detected FTD = Filter Tamperin 502-564-5655 N/A = Not Applicable | Client Information Results Code: | |
| | KYTC COC | | | 3/20 | | | | t | Asbest bulk | Analysis Requested | mag line (| ND = None Detected FTD = Filter Tampering or Damaged N/A = Not Applicable Samplers (signature); | KY TRANS CABINET | 200 Mero Street, 5th Floor West Frankfort, Kentucky 40622 (502) 564-7250 fax (502) 564-5655 |
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| | Page 1 | | | | | | | | N/A | Preservative | | | Zorne Aug | |

Chain of Custody Record

Kentucky Transportation Cabinet

200 Mero Street, 5th Floor West Frankfort, Kentucky 40622 (502) 564-7250 fax (502) 564-5655

| | Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management, Tennessee Department of Environment & Conservation and The Arkansas Department of Environmental Quality. The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA). Conducted at: 1520 Alliant Ave., Louisville, KY Expiration Date: 03-11-2021 Name - Fraining Manager Name - Instructor | ASBESTOS INSPECTOR REFRESHER | O'Dail Lawson has on 03-11-2020, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course. | Certification Number: ETC-AIR-031120-00387 | ENVIRONMENTAL TRAINING CONCEPTS, INC P.O Box 99603 Louisville, KY 40269 (502)640-2951 | |
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COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET

transportation.ky.gov

Jim Gray SECRETARY

Asbestos Inspection Report

To: Donna Hardin

District: 5

Date: October 28, 2020

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Jefferson 05-0048.10

Structure ID: 056B00168L

Structure Location: I-71 over CSX RR Spur (abandoned)

Sample Description: Any suspect materials collected were negative for asbestos.

Inspection Date: October 23, 2020

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%. No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (<u>DEP7036Form</u>) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

Andy Beshear

MRS, INC.

MRS, Inc. Analytical Laboratory Division

332 West Broadway / Suite # 902 Louisville, Kentucky - 40202 - 2133

(502) 495-1212 Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

| Analysis N# | # 210272 | Address: | Jefferson County - 056B00168 L |
|--------------|---------------|----------|--------------------------------|
| Client Name: | КҮТС | - | |
| Sampled By: | O'Dail Lawson | _ | |

| | | | | % | FIBROUS | ASBESTOS | | % N | ON-ASBES | TOS FIBEI | RS |
|-----------|-------|---------|----------|------------|---------|-------------|--------|-----------|------------|------------|------------|
| Sample ID | Color | Layered | Fibrous | Chrysotile | Amosite | crocidolite | Others | Cellulose | Fiberglass | Syn. Fiber | Other/Mat. |
| # 168-1 | White | Yes | No | 2% | (To Be | Point Cou | inted) | 2% | | | 96% |
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Methodology : EPA Method 600/R-93-116

| Date Analyzed : | 27-Oct-20 |
|-----------------|-----------|
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Analyst

Winterford Mensah

The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S Government. Partial Reproduction of any part of this report is strictly prohibited. Samples shall be retained for (30) days.

AIHA # 102459

AJHA #1 02459

| ouisville, Kentucky 40202 E-Mail Address : CEOMRSInc@AOL.Com Ilient: KYTC Project No: # 210272 B address: 200 Mero Street Sample ID: # 168 - 1 Sth Floor West Sampled: 23-Oct-20 Frankfort, Kentucky Received: 23-Oct-20 40622 Analyzed: 27-Oct-20 - Point Count - Attention : O'Dail Lawson Bulk Sample Analysis ampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00168 L ield Description: Trowel On Sealant aboratory Description: White To Gray Color Material subsestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative Ion-Asbestos Fibrous Materials : O.25 % | | | | - | al Laboratory Division |
|---|-------------|------------------|-------------------------|--------------------|---------------------------|
| Client: KYTC Project No: # 210272 B Address: 200 Mero Street Sample ID: # 168 - 1 5th Floor West Sampled: 23-Oct-20 Frankfort, Kentucky Received: 23-Oct-20 40622 Analyzed: 27-Oct-20 - Point Count - Attention : O'Dail Lawson Attention: Project No: Facility/Location: Jefferson County - Item # 056 B00168 L Field Description: Trowel On Sealant aboratory Description: White To Gray Color Material Chrysotile = 1/400 = 0.25 % (<1 %) Sample Is Negative | | | | Phone # : | |
| Address: 200 Mero Street Sample ID: # 168 - 1 Sth Floor West Sampled: 23-Oct-20 Frankfort, Kentucky Received: 23-Oct-20 40622 Analyzed: 27-Oct-20 - Point Count - Attention : O'Dail Lawson Bulk Sample Analysis Bulk Sample Analysis Sampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00168 L Sideratory Description: White To Gray Color Material White To Gray Color Material White To Gray Color Material Won-Asbestos Fibrous Materials : Cellulose 0.25 % | ouisville, | Kentucky 4 | 0202 | E-Mail Address : (| LEUMIKSInc@AUL.Com |
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| Frankfort, Kentucky Received: 23-Oct-20 Attention : O'Dail Lawson Analyzed: 27-Oct-20 - Point Count - Sampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00168 L Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material White To Gray Color Material Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | Address: | 200 Mero | Street | Sample ID: | # 168 - 1 |
| 40622 Attention : O'Dail Lawson Bulk Sample Analyzed: 27-Oct-20 - Point Count - Attention : O'Dail Lawson Bulk Sample Analysis Sampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00168 L Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material | | 5th Floor | West | Sampled: | 23-Oct-20 |
| Attention : O'Dail Lawson Bulk Sample Analysis Sampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00168 L Field Description: Field Description: Trowel On Sealant Image: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | Frankfort | , Kentucky | Received: | 23-Oct-20 |
| Bulk Sample Analysis Sampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00168 L Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | | 40622 | Analyzed: | 27-Oct-20 - Point Count - |
| Sampled By : O'Dail Lawson Facility/Location: Jefferson County - Item # 056 B00168 L Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | Attention | : O'Dail Lawson | | |
| Facility/Location: Jefferson County - Item # 056 B00168 L Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | | | Bulk Sa | mple Analysis | |
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| Field Description: Trowel On Sealant Laboratory Description: White To Gray Color Material Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative | - | • | | n # 056 B00168 L | |
| Laboratory Description: White To Gray Color Material Asbestos Materials: | | | · · · · | | |
| Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative Non-Asbestos Fibrous Materials : Cellulose 0.25 % | | • | on: | | |
| Asbestos Materials: Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative Non-Asbestos Fibrous Materials : Cellulose 0.25 % | | | White To Gray Color M | laterial | |
| Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative Non-Asbestos Fibrous Materials : Cellulose 0.25 % | | | · · · | | |
| Chrysotile = 1/400 = 0.25 % (< 1 %) Sample Is Negative Non-Asbestos Fibrous Materials : Cellulose 0.25 % | | | | | |
| Non-Asbestos Fibrous Materials : Cellulose 0.25 % | Asbestos | Materials: | | | |
| Cellulose 0.25 % | | | Chrysotile = 1/400 = 0. | 25 % (< 1 %) Sam | nple Is Negative |
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| | | | Cellulose | | 0.25 % |
| Binders 99.50 % | | | Binders | | 99.50 % |
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| Pemarke: The sample was analyzed for ashestos content following the EDA Methodology | Netridi KS: | - | - | | |
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| (600/R-93/116). The test relates only to the items tested. This report does not | | | | e. any agency of | |
| | Analyst: | Wir | nterford Mensah | Reviewed Bv: | This to Day of The |
| represent endorsement by NVLAP or any agency of the U.S. Government. | | | | | Signature |
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| (600/R-93/116). The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S. Government. | | | | | |
| (600/R-93/116). The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S. Government. | AIHA #102 | 2459 | 1 | AIHA #102459 | / AIHA #102 |

| NHPP 07 | 711(0 96) | | R | R | R | | Т | S | P | qq | A | | | Pa |
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| | | eceived a | Relinquished By: | Received By: | Relinquished By: | | 1-801 | ample II | roject or | Phone: PO#: | Address: | | // | \land |
| | | Received at Lab By: | hed By: | By: Mintighens Mena | hed By: | | 1 Trowel on Spalent | Sample ID Sample Description | Project or Subject Reference JOFFerson | Frankfort KY 502-564-7250 Fax: 502-564-565 | Street | O'Dail Lawson <u>o'dail.lawson@ky.gov</u> | | KENTUCKY TRANSPORTATION CABINET |
| | | | | er l | | | 10/23/20 | Date | 056 | $\frac{1}{5} \frac{1}{N/A} = N$ | Results Code: ND = None D | Client I | | N N |
| | | Date/Time: | Date/Time: | Date/Time: | Date/Time: | | 0 11:45 | Collected te Time | 891008950 | 502-564-5655 N/A = Not Applicable | Results Code: ND = None Detected | Client Information | | |
| | KYTC COC | | | 120 | | | Asberto | | 78 | FTD = Filter Tampering or Damaged N/A = Not Applicable | | KY TRANS CABINET | | Kentucky Transpoi 200 Mero Street, 5th Floor West Frankfort, Kentucky 40622 (502) 564-7250 fax (502) 564-5 |
| | | | | | 7 | | 6016 | Analysis Requested | and for the | Samplers (signature): | | INET | | Kentucky Transportation Cabinet 200 Mero Street, 5th Floor West Frankfort, Kentucky 40622 (502) 564-7250 fax (502) 564-5655 |
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| | Page 1 | | | | | | | Preservative | | | A. | Re aux | | |

JEFFERSON COUNTY

Contract ID: 251013 Page 116 of 216

hain of Custody Record

| 3 | Training was in accordance with 40 CFR Part 7 Department of Environmental Management, 1 Arkansas Department of Environmental Qualit Accreditation under Title II of the Toxic Substa Conducted at: 1520 Alliant Ave., Louisville, KY | 2 | has on 03-11-2020, a | | Certification Number: | | |
|-----|--|------------------------------|--|---------------|--|---|------|
| Ser | Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management, Tennessee Department of Environment & Conservation and The Arkansas Department of Environmental Quality. The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA). Conducted at: 1520 Alliant Ave., Louisville, KY Mame - Fraining Manager | ASBESTOS INSPECTOR REFRESHER | has on 03-11-2020, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course. | O'Dail Lawson | Certification Number: ETC-AIR-031120-00387 | ENVIRONMENTAL TRAINING CONCEPTS, INC P.O Box 99603 Louisville, KY 40269 (502)640-2951 | |
| Es. | 2 | 15 | R | | | | 1025 |



COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET

transportation.ky.gov

Jim Gray SECRETARY

Asbestos Inspection Report

To: Donna Hardin

District: 5

Date: October 28, 2020

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Jefferson 05-0048.10

Structure ID: 056B00169L

Structure Location: I-71 over Beargrass Creek

Sample Description: Any suspect materials collected were negative for asbestos.

Inspection Date: October 23, 2020

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%. No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (<u>DEP7036Form</u>) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

Andy Beshear

MRS, INC.

MRS, Inc. Analytical Laboratory Division

332 West Broadway / Suite # 902 Louisville, Kentucky - 40202 - 2133

(502) 495-1212 Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

| Analysis N# | # 210276 | Address: Jefferso | on County - 056 B00169L |
|--------------|---------------|-------------------|-------------------------|
| Client Name: | КҮТС | | |
| Sampled By: | O'Dail Lawson | | |

| | | | | % FIBROUS ASBESTOS | | | | % NON-ASBESTOS FIBERS | | | |
|-----------|-------|---------|---------|--------------------|---------|-------------|--------|-----------------------|------------|------------|------------|
| Sample ID | Color | Layered | Fibrous | Chrysotile | Amosite | crocidolite | Others | Cellulose | Fiberglass | Syn. Fiber | Other/Mat. |
| # 169-1 | White | Yes | No | 2% | (To Be | Point Cou | inted) | 2% | | | 96% |
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Methodology : EPA Method 600/R-93-116

| Date Analyze | d : | 27-Oct-20 | | | | |
|--------------|-----|-------------------|--|--|--|--|
| Analyst | : | Winterford Mensah | | | | |

The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S Government. Partial Reproduction of any part of this report is strictly prohibited. Samples shall be retained for (30) days.

AIHA # 102459

AJHA #1 02459

| ouisville, l | Broadway, | S Suite # 902 | Phone # : | (502) 495-1212 |
|--------------|-------------|-------------------------|--------------------|---------------------------|
| | Kentucky 4 | 0202 | E-Mail Address : | CEOMRSInc@AOL.Com |
| Client: | күтс | | Project No: | # 210276 B |
| Address: | 200 Merc | o Street | Sample ID: | # 169 - 1 |
| | 5th Floor | West | Sampled: | 23-Oct-20 |
| | Frankfort | , Kentucky | Received: | 23-Oct-20 |
| | | 40622 | Analyzed: | 27-Oct-27 - Point Count - |
| | Attention | : O'Dail Lawson | | |
| | | Bulk Sa | mple Analysis | |
| Sampled B | sy : | O'Dail Lawson | | |
| Facility/Lo | • | Jefferson County - Iten | n # 056 B00168 L | |
| Field Desc | ription: | Trowel On Sealant | | |
| aboratory | y Descripti | on: | | |
| | | White To Gray Color M | laterial | |
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| Asbestos N | Materials: | | | |
| | | Chrysotile = 1/400 = 0. | 25 % (< 1 %) San | nple Is Negative |
| | | | | |
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| Non-Asbes | stos Fibrou | s Materials : | | |
| | | Cellulose | | 0.25 % |
| | | Binders | | 99.50 % |
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| | RSON | | | | | · · · · · · · | | | 70 | | | | | Contract ID: 251013 Page 121 of 216 |
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| | 0711(Ø | t Lab | Relinquished By: | ý: | Relinquished By: | | | - | Sam | Project or Subject Reference | -700 | 200 Fran | O'Dail KYTC | |
| | | By: | | 19 | | | | Inouch | ple D | ct Ref | 302-304-7230 | 200 Mero Street Frankfort | ail La [C | |
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| | | | | | | | | | | 8 | 2-304 | | O'Dail Lawson <u>o'dail.lawson@ky.gov</u> KYTC | ORT/ |
| | | | | | | | | | | 50 | -000 | n n n | VOL | TUCKY NSPORTATION INET |
| | | | | 8 | | | | 10/2 | Ū | 63 | | FTD | Clie Rest | Ž |
| | | | | R | | | | 10/23/20 | Date | 056300169 | | ND = None Detected FTD = Filter Tampering or Damaged | Client Information Results Code: | |
| | | Date/ | Date/ | Date/ | Date/ | | | | 2 | 160 | | ne Del Iter Ta | ode: | \bigcap |
| | | Date/Time: | Date/Time: | Date/Time: | Date/Time: | | | 01:30 | Time | 5 | | tected | tion | ha |
| | | | | N. | | | | - | | | | ing of | KY | Chain of Custody Record Kentucky Transportation Cabir 200 Mero Street, 5th Floor West Frankfort, Kentucky 40622 (502) 564-7250 fax (502) 564-5655 |
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| | | | | | | | | | Requested | 0 | Samplers (signature): | | | in of Custody Record Kentucky Transportation Cabinet 200 Mero Street, 5th Floor West Frankfort, Kentucky 40622 (502) 564-7250 fax (502) 564-5655 |
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| | Page 1 | | | | | | | | Preservative | | | | | |
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| Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management, Tennessee Department of Environment & Conservation and The Accreditation under Title II of the Toxic Substance Act (TSCA). Conducted at: 1520 Alliant Ave., Louisville, KY Mame - Fraining Manager | ASBESTOS INSPECTOR REFRESHER | O'Dail Lawson has on 03-11-2020, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course. | Certification Number: ETC-AIR-031120-00387 | ENVIRONMENTAL TRAINING CONCEPTS, INC P.O Box 99603 Louisville, KY 40269 (502)640-2951 | |
|--|------------------------------|---|--|---|--|
| th of Kentucky, the Indiana onservation and The aining for Asbestos ion Date: 03-11-2021 Name Instructor | | sed the examination with a | | C | |

TEAM **KENTUCKY**

TRANSPORTATION CABINET

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-Ce | ertification | | RIGHT OF WAY CERTIFICATION | | | | | | | | |
|---|--|------------------|--|---|-------------------------|---|--|--|--|--|--|--|
| ITEM | # | (| COUNTY | PROJE | CT # (STATE) | PROJECT # (FEDERAL) | | | | | | |
| 5-48.10 | | Jefferson | | 1200 FD52 0 | 56 5325305 | NHPP 0711 (121) | | | | | | |
| PROJECT DESC | RIPTION | | | • | | | | | | | | |
| See remaks see | tion below. | | | | | | | | | | | |
| No Addit | ional Right of | Way Require | ed | | | | | | | | | |
| | - | | | e right of way w | as acquired in accorda | ance 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 | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | |
| - | | | | | | physical possession and the | | | | | | |
| - | | - | | | | n paid or deposited with the | | | | | | |
| court. All relocat | ions have beer | n relocated to d | lecent, safe, and sanita | ary housing or th | nat KYTC has made ava | ilable to displaced persons | | | | | | |
| | | | with the provisions of | | VA directive. | | | | | | | |
| | | | Vay Required with Ex | | | | | | | | | |
| | | | | - | | he proper execution of the | | | | | | |
| | | | | | | n has not been obtained, but | | | | | | |
| | | | | | | s physical possession and right e court for most parcels. Just | | | | | | |
| | | | aid or deposited with t | | | | | | | | | |
| | | | Vay Required with E | | | | | | | | | |
| | - | - | | | nplete and/or some pa | arcels still have occupants. All | | | | | | |
| | | | ousing made available | | | | | | | | | |
| | | | | | | necessary right of way will not | | | | | | |
| | | - | | | | baid or deposited with the | | | | | | |
| | | - | cquisitions, relocations | | | 35.309(c)(3) and 49 CFR | | | | | | |
| | - | - | account construction. | s, and run paying | and aller blu letting a | | | | | | | |
| Total Number of Par | | | EPTION (S) Parcel # | ANTICIPATED DATE OF POSSESSION WITH EXPLANATION | | | | | | | | |
| Number of Parcels 1 | hat Have Been Ac | quired | | | | | | | | | | |
| Signed Deed | | | | | | | | | | | | |
| Condemnation | | | | | | | | | | | | |
| Signed ROE | s (Text is limited | Use additional | sheet if necessary.) | | | | | | | | | |
| | | | NEAR KENNEDY, INCLUD | ING OPERATION | AL IMPROVEMENTS TO T | HE ZORN INTERCHANGE | | | | | | |
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| | LPA RW Pro | ject Manager | | | Right of Way Su | pervisor | | | | | | |
| Printed Name | | | P | Printed Name | | | | | | | | |
| Signature | | | | Signature | Tom Boykin | gitally signed by Tom Boykin te: 2025.05.09 11:50:17 -04'00' | | | | | | |
| Date | | | | Date | | | | | | | | |
| | Right of W | ay Director | | FHWA | | | | | | | | |
| Printed Name | | | Р | rinted Name | | | | | | | | |
| Signature | 1 1 | Digital | y signed by Kelly Divine 025.05.09 16:24:14 -05'00' | Signature | | | | | | | | |
| Date | - Kun h. | Date: 2 | 025.05.09 16:24:14 -05'00' | Date | | | | | | | | |

Contract ID: 251013 Page 123 of 216

Jefferson County NHPP 0711096 FD52 056 007 1 000-003 Mile point: 0.000 TO 2.500 ADDITION OF NB AND SB AUXILIARY LANES ON I-71 NEAR KENNEDY, INCLUDING OPERATIONAL IMPROVEMENTS TO THE ZORN INTERCHANGE. (2004BOPC) (2024CCR) ITEM NUMBER: 05-48.10

PROJECT NOTES ON UTILITIES

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

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.

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.

Jefferson County NHPP 0711096 FD52 056 007 1 000-003 Mile point: 0.000 TO 2.500 ADDITION OF NB AND SB AUXILIARY LANES ON I-71 NEAR KENNEDY, INCLUDING OPERATIONAL IMPROVEMENTS TO THE ZORN INTERCHANGE. (2004BOPC) (2024CCR) ITEM NUMBER: 05-48.10

NOTE: DO NOT DISTURB THE FOLLOWING FACILITIES LOCATED WITHIN THE PROJECT DISTURB LIMITS

Louisville Water Company - Existing 8-IN W.M. (16-IN casing pipe) crosses I-71 near STA. 557+50. Existing 12-IN ductile iron W.M. runs east of, and parallel to, Edit Ave. Existing 8-IN ductile iron W.M. runs east of, and parallel to, Mockingbird Valley Rd. Existing 12-IN ductile iron W.M. runs north of, and parallel to Mellwood Ave. Numerous existing W.M.'s run parallel to Zorn Ave within the grass median. LWC has an active construction project on Zorn Ave. MAC Construction and Mainlining America are performing cement mortar lining of an existing water main located in the Zorn Ave median. This utility construction is anticipated to be complete November 2025. The roadway contractor will be required to coordinate Zorn Ave construction schedule with LWC's contractors.

Louisville Gas and Electric (gas) - Existing 12-IN CT (tar coated) G.M. (16-IN casing pipe) crosses at STA. 557+50. Existing 12-IN CT G.M. runs west of and parallel to Zorn Ave under the proposed shared use path.

Louisville Gas and Electric (electric) - Existing underground electric line crosses near STA. 557+50. Existing electric distribution lines cross over I-71 at Mockingbird Valley Rd.

Metropolitan Sewer District – Existing sanitary sewers crosses Zorn Ave at Mellwood.

Communications – Existing communication pole route crosses under I-71 along Edith Ave. Existing communication pole route crosses under I-71 along Mockingbird Valley Rd.

The Contractor is fully responsible for protection of all utilities listed above

Jefferson County NHPP 0711096 FD52 056 007 1 000-003 Mile point: 0.000 TO 2.500 ADDITION OF NB AND SB AUXILIARY LANES ON I-71 NEAR KENNEDY, INCLUDING OPERATIONAL IMPROVEMENTS TO THE ZORN INTERCHANGE. (2004BOPC) (2024CCR)

ITEM NUMBER: 05-48.10

THE FOLLOWING FACILITY OWNERS ARE RELOCATING/ADJUSTING THEIR FACILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

Not Applicable

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE OWNER OR THEIR SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT

Louisville Gas and Electric (electric) – Existing lighting poles located at the intersection of Zorn and Mellwood require relocation. The roadway contractor will be required to schedule this relocation work with LG&E.

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE ROAD CONTRACTOR AS INCLUDED IN THIS CONTRACT

Not Applicable

RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☑ No Rail Involvement □ Rail Involved □ Rail Adjacent

Page **3** of **4**

Form Revised 6/24/16

Jefferson County NHPP 0711096 FD52 056 007 1 000-003 Mile point: 0.000 TO 2.500 ADDITION OF NB AND SB AUXILIARY LANES ON I-71 NEAR KENNEDY, INCLUDING OPERATIONAL IMPROVEMENTS TO THE ZORN INTERCHANGE. (2004BOPC) (2024CCR) ITEM NUMBER: 05-48.10

AREA FACILITY OWNER CONTACT LIST

AT&T – Scott Roche – SR8832@att.com – (502) 827-4703

Charter – Michael (Ben) York – Michael York@Charter.com - (502) 548-1632

Louisville Gas & Electric - Caroline Justice - Caroline.Justice@lge-ku.com - (502) 627-3708

Louisville Water Company - Pat Howard - phoward@louisvillewater.com - (502) 213-2096

Louisville MSD – Taylor Friesz - Taylor.Friesz@louisvillemsd.org - (502) 530-5192

Windstream - James Galvin - James.Galvin@windstream.com - (270) 748-9249



Kentucky Transportation Cabinet

Highway District __ (1)

And

(2), Construction

Kentucky Pollutant Discharge Elimination System Permit KYR10 Best Management Practices (BMP) plan

Groundwater protection plan

For Highway Construction Activities

For

[Project Description](1)

Project: PCN 5 - 48.10

KPDES BMP Plan Page 1 of 14

Project information

Note -(1) = Design (2) = Construction (3) = Contractor

- 1. Owner Kentucky Transportation Cabinet, District 5 (1)
- 2. Resident Engineer: (2)
- 3. Contractor name: (2) Address: (2)

Phone number: (2) Contact: (2) Contractors agent responsible for compliance with the KPDES permit requirements (3):

- 4. Project Control Number (2)
- 5. Route (Address): (1) Louisville, KY Jefferson County @ I-71/Zorn Ave. Interchange
- Latitude/Longitude (project mid-point) dd/mm/ss, dd/mm/ss (1)
 Lat: 38 16 02 N
 Long: 85 42 32 W
- 7. County (project mid-point) (1) Jefferson
- 8. Project start date (date work will begin): (2)
- 9. Projected completion date: (2)

A. Site description:

1. Nature of Construction Activity (from letting project description) (1) WIDEN I-71 FROM FRANKFORT AVE. TO ZORN AVE., INCLUDING OPERATIONAL IMPROVEMENTS TO ZORN AVE.

- 2. Order of major soil disturbing activities (2) and (3)
- 3. Projected volume of material to be moved (1) 38,594 CU YD
- 4. Estimate of total project area (acres) (1) 108.69.
- 5. Estimate of area to be disturbed (acres) (1) 47.63.
- 6. Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information.(1)
- 7. Data describing existing soil condition (1) & (2)

The project is located within the Jeffersonville-New Albany-Charleston Geologic Quadrangle (#1211). The geologic mapping indicates the upper geologic formation at this site is the Sellersburg and Jeffersonville Limestone Formations. This formation consists of limestone that is susceptible to karst activity. However, little karst activity is shown on mapping or was seen during site visit. If any sinkholes are discovered during construction, contact the Geotechnical Branch.

The roadway drilling operations consisted of 21 disturbed profile, and 2 undisturbed stability borings. Sampling depths ranged from 5 to 52 feet with none of the borings encountering refusal on bedrock.

Based on review of the drilling and design for the project, it appears durable rock from roadway excavation will not be available to construct a roadbed for the entire project. Therefore, the design recommendations for this project will be using a chemically stabilized soil subgrade.

- 8. Data describing existing discharge water quality (if any) (1) & (2) BNR
- 9. Receiving water name (1)
- 10. TMDLs and Pollutants of Concern in Receiving Waters: (1 DEA) BNR
- 11. Site map Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge

point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.

12. Potential sources of pollutants:

The primary source of pollutants is solids that are mobilized during storm events. Other sources of pollutants include oil/fuel/grease from servicing and operating construction equipment, concrete washout water, sanitary wastes and trash/debris. (3)

B. Sediment and Erosion Control Measures:

 Plans for highway construction projects will include erosion control sheets that depict Disturbed Drainage Areas (DDAs) and related information. These plan sheets will show the existing project conditions with areas delineated by DDA within the right of way limits, the discharge points and the areas that drain to each discharge point. Project managers and designers will analyze the DDAs and identify Best Management Practices (BMPs) that are site specific. The balance of the BMPs for the project will be listed in the bid documents for selection and use by the contractor on the project with approval by the resident engineer.

Projects that do not have DDAs annotated on the erosion control sheets will employ the same concepts for development and managing BMP plans.

2. Following award of the contract, the contractor and resident engineer will annotate the erosion control sheets showing location and type of BMPs for each of the DDAs that will be disturbed at the outset of the project. This annotation will be accompanied by an order of work that reflects the order or sequence of major soil moving activities. The remaining DDAs are to be designated as "Do Not Disturb" until the contractor and resident engineer prepare the plan for BMPs to be employed. The initial BMP's shall be for the first phase (generally Clearing and Grubbing) and shall be modified as needed as the project changes phases. The BMP Plan will be modified to reflect disturbance in additional DDA's as the work progresses. All DDA's will have adequate BMP's in place before being disturbed.

- 3. As DDAs are prepared for construction, the following will be addressed for the project as a whole or for each DDA as appropriate:
 - Construction Access This is the first land-disturbing activity. As soon as construction begins, bare areas will be stabilized with gravel and temporary mulch and/or vegetation.
 - At the beginning of the project, all DDAs for the project will be inspected for areas that are a source of storm water pollutants. Areas that are a source of pollutants will receive appropriate cover or BMPs to arrest the introduction of pollutants into storm water. Areas that have not been opened by the contractor will be inspected periodically (once per month) to determine if there is a need to employ BMPs to keep pollutants from entering storm water.
 - Clearing and Grubbing The following BMP's will be considered and used where appropriate.
 - Leaving areas undisturbed when possible.
 - Silt basins to provide silt volume for large areas.
 - Silt Traps Type A for small areas.
 - Silt Traps Type C in front of existing and drop inlets which are to be saved
 - Diversion ditches to catch sheet runoff and carry it to basins or traps or to divert it around areas to be disturbed.
 - Brush and/or other barriers to slow and/or divert runoff.
 - Silt fences to catch sheet runoff on short slopes. For longer slopes, multiple rows of silt fence may be considered.
 - Temporary Mulch for areas which are not feasible for the fore mentioned types of protections.
 - Non-standard or innovative methods.
 - Cut & Fill and placement of drainage structures The BMP Plan will be modified to show additional BMP's such as:
 - Silt Traps Type B in ditches and/or drainways as they are completed
 - Silt Traps Type C in front of pipes after they are placed
 - Channel Lining
 - Erosion Control Blanket
 - Temporary mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.
 - Non-standard or innovative methods
 - Profile and X-Section in place The BMP Plan will be modified to show elimination of BMP's which had to be removed and the addition of new BMP's as the roadway was shaped. Probably changes include:
 - Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.

- Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.
- Additional Channel Lining and/or Erosion Control Blanket.
- Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
- Special BMP's such as Karst Policy
- Finish Work (Paving, Seeding, Protect, etc.) A final BMP Plan will result from modifications during this phase of construction. Probably changes include:
 - Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.
 - Permanent Seeding and Protection
 - Placing Sod
 - Planting trees and/or shrubs where they are included in the project
- BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are: (1) The Erosion Control sheets are included in the Highway Plan set.

C. Other Control Measures

- 1. No solid materials, including building materials, shall be discharged to waters of the commonwealth, except as authorized by a Section 404 permit.
- 2. Waste Materials

All waste materials that may leach pollutants (paint and paint containers, caulk tubes, oil/grease containers, liquids of any kind, soluble materials, etc.) will be collected and stored in appropriate covered waste containers. Waste containers shall be removed from the project site on a sufficiently frequent basis as to not allow wastes to become a source of pollution. All personnel will be instructed regarding the correct procedure for waste disposal. Wastes will be disposed in accordance with appropriate regulations. Notices stating these practices will be posted in the office.

3. Hazardous Waste

All hazardous waste materials will be managed and disposed of in the manner specified by local or state regulation. The contractor shall notify the Resident Engineer if there any hazardous wastes being generated at the project site and how these wastes are being managed. Site personnel will be instructed with

regard to proper storage and handling of hazardous wastes when required. The Transportation Cabinet will file for generator, registration when appropriate, with the Division of Waste Management and advise the contractor regarding waste management requirements.

4. Spill Prevention

The following material management practices will be used to reduce the risk of spills or other exposure of materials and substances to the weather and/or runoff.

Good Housekeeping:

The following good housekeeping practices will be followed onsite during the construction project.

- An effort will be made to store only enough product required to do the job
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure
- Products will be kept in their original containers with the original manufacturer's label
- Substances will not be mixed with one another unless recommended by the manufacturer
- Whenever possible, all of the product will be used up before disposing of the container
- Manufacturers' recommendations for proper use and disposal will be followed
- The site contractor will inspect daily to ensure proper use and disposal of materials onsite

Hazardous Products:

These practices will be used to reduce the risks associated with any and all hazardous materials.

- Products will be kept in original containers unless they are not resealable
- Original labels and material safety data sheets (MSDS) will be reviewed and retained
- Contractor will follow procedures recommended by the manufacturer when handling hazardous materials
- If surplus product must be disposed of, manufacturers' or state/local recommended methods for proper disposal will be followed

The following product-specific practices will be followed onsite:

> Petroleum Products:

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Vehicles and equipment that are fueled and maintained on site will be monitored for leaks, and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products onsite will be stored in tightly sealed containers, which are clearly labeled and will be protected from exposure to weather.

The contractor shall prepare an Oil Pollution Spill Prevention Control and Countermeasure plan when the project that involves the storage of petroleum products in 55 gallon or larger containers with a total combined storage capacity of 1,320 gallons. This is a requirement of 40 CFR 112.

This project (will / will not) (3) have over 1,320 gallons of petroleum products with a total capacity, sum of all containers 55 gallon capacity and larger.

> Fertilizers:

Fertilizers will be applied at rates prescribed by the contract, standard specifications or as directed by the resident engineer. Once applied, fertilizer will be covered with mulch or blankets or worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

> Paints:

All containers will be tightly sealed and stored indoors or under roof when not being used. Excess paint or paint wash water will not be discharged to the drainage or storm sewer system but will be properly disposed of according to manufacturers' instructions or state and local regulations.

Concrete Truck Washout:

Concrete truck mixers and chutes will not be washed on pavement, near storm drain inlets, or within 75 feet of any ditch, stream, wetland, lake, or sinkhole. Where possible, excess concrete and wash water will be discharged to areas prepared for pouring new concrete, flat areas to be paved that are away from ditches or drainage system features, or other locations that will not drain off site. Where this approach is not possible, a shallow earthen wash basin will be excavated away from ditches to receive the wash water

> Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Manufacturers' recommended methods for spill cleanup will be clearly posted. All personnel will be made aware of procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area. Equipment and materials will include as appropriate, brooms, dust pans, mops, rags, gloves, oil absorbents, sand, sawdust, and plastic and metal trash containers.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contract with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate state/local agency as required by KRS 224 and applicable federal law.
- The spill prevention plan will be adjusted as needed to prevent spills from reoccurring and improve spill response and cleanup.
- Spills of products will be cleaned up promptly. Wastes from spill clean up will be disposed in accordance with appropriate regulations.

D. Other State and Local Plans

This BMP plan shall include any requirements specified in sediment and erosion control plans, storm water management plans or permits that have been approved by other state or local officials. Upon submittal of the NOI, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in this BMP plan). This provision does not apply to master or comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials. (1) - None specified in plan set

E. Maintenance

- 1. The BMP plan shall include a clear description of the maintenance procedures necessary to keep the control measures in good and effective operating condition.
- Maintenance of BMPs during construction shall be a result of weekly and post rain event inspections with action being taken by the contractor to correct deficiencies.
- Post Construction maintenance will be a function of normal highway maintenance operations. Following final project acceptance by the cabinet, district highway crews will be responsible for identification and correction of deficiencies regarding ground cover and cleaning of storm water BMPs. The project manager shall identify any BMPs that will be for the purpose of post

construction storm water management with specific guidance for any non-routine maintenance. (1) – None specified in plan set

F. Inspections

Inspection and maintenance practices that will be used to maintain erosion and sediment controls:

- All erosion prevention and sediment control measures will be inspected at least once each week and following any rain of one-half inch or more.
- Inspections will be conducted by individuals that have received KyTC Grade Level II training or other qualification as prescribed by the cabinet that includes instruction concerning sediment and erosion control.
- Inspection reports will be written, signed, dated, and kept on file.
- > Areas at final grade will be seeded and mulched within 14 days.
- Areas that are not at final grade where construction has ceased for a period of 21 days or longer and soil stock piles shall receive temporary mulch no later than 14 days from the last construction activity in that area.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of being reported.
- Built-up sediment will be removed from behind the silt fence before it has reached halfway up the height of the fence.
- Silt fences will be inspected for bypassing, overtopping, undercutting, depth of sediment, tears, and to ensure attachment to secure posts.
- Sediment basins will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 70 percent of the design capacity and at the end of the job.
- Diversion dikes and berms will be inspected and any breaches promptly repaired. Areas that are eroding or scouring will be repaired and reseeded / mulched as needed.
- Temporary and permanent seeding and mulching will be inspected for bare spots, washouts, and healthy growth. Bare or eroded areas will be repaired as needed.
- All material storage and equipment servicing areas that involve the management of bulk liquids, fuels, and bulk solids will be inspected weekly for conditions that represent a release or possible release of pollutants to the environment.

G. Non – Storm Water discharges

It is expected that non-storm water discharges may occur from the site during the construction period. Examples of non-storm water discharges include:

- > Water from water line flushings.
- > Water form cleaning concrete trucks and equipment.
- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- Uncontaminated groundwater and rain water (from dewatering during excavation).

All non-storm water discharges will be directed to the sediment basin or to a filter fence enclosure in a flat vegetated infiltration area or be filtered via another approved commercial product.

H. Groundwater Protection Plan (3)

This plan serves as the groundwater protection plan as required by 401 KAR 5:037.

Contractors statement: (3)

The following activities, as enumerated by 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan, will or may be may be conducted as part of this construction project:

2. (e) land treatment or land disposal of a pollutant;

2. (f) Storing, ..., or related handling of hazardous waste, solid waste or special waste, ..., in tanks, drums, or other containers, or in piles, (This does not include wastes managed in a container placed for collection and removal of municipal solid waste for disposal off site);

2. (g) Handling of materials in bulk quantities (equal or greater than 55 gallons or 100 pounds net dry weight transported held in an individual container) that, if released to the environment, would be a pollutant;

_____ 2. (j) Storing or related handling of road oils, dust suppressants,, at a central location;

_____ 2. (k) Application or related handling of road oils, dust suppressants or deicing materials, (does not include use of chloride-based deicing materials applied to roads or parking lots);

2. (m) Installation, construction, operation, or abandonment of wells, bore holes, or core holes, (this does not include bore holes for the purpose of explosive demolition);

Or, check the following only if there are no qualifying activities

_____ There are no activities for this project as listed in 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan.

The contractor is responsible for the preparation of a plan that addresses the

401 KAR 5:037 Section 3. (3) Elements of site specific groundwater protection plan:

- (a) General information about this project is covered in the Project information;
- (b) Activities that require a groundwater protection plan have been identified above;
- (c) Practices that will protect groundwater from pollution are addressed in section C. Other control measures.
- (d) Implementation schedule all practices required to prevent pollution of groundwater are to be in place prior to conducting the activity;
- (e) Training is required as a part of the ground water protection plan. All employees of the contractor, sub-contractor and resident engineer personnel will be trained to understand the nature and requirements of this plan as they pertain to their job function(s). Training will be accomplished within one week of employment and annually thereafter. A record of training will be maintained by the contractor with a copy provide to the resident engineer.
- (f) Areas of the project and groundwater plan activities will be inspected as part of the weekly sediment and erosion control inspections
- (g) Certification (see signature page.)

Contractor and Resident Engineer Plan certification

The contractor that is responsible for implementing this BMP plan is identified in the Project Information section of this plan.

The following certification applies to all parties that are signatory to this BMP plan:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, this plan complies with the requirements of 401 KAR 5:037. By this certification, the undersigned state that the individuals signing the plan have reviewed the terms of the plan and will implement its provisions as they pertain to ground water protection.

Resident Engineer and Contractor Certification:

title

(2) Resident Engineer signature

Signed _

Typed or printed name²

signature

1. Contractors Note: to be signed by a person who is the owner, a responsible corporate officer, a general partner or the proprietor or a person designated to have the authority to sign reports by such a person in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601. Reference the Project Control Number (PCN) and KPDES number when one has been issued.

2. KyTC note: to be signed by the Chief District Engineer or a person designated to have the authority to sign reports by such a person (usually the resident engineer) in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601 Reference the Project Control Number (PCN) and KPDES number when one has been issued.

Sub-Contractor Certification

The following sub-contractor shall be made aware of the BMP plan and responsible for implementation of BMPs identified in this plan as follows:

Subcontractor

Name: Address: Address:

Phone:

The part of BMP plan this subcontractor is responsible to implement is:

I certify under penalty of law that I understand the terms and conditions of the general Kentucky Pollutant Discharge Elimination System permit that authorizes the storm water discharges, the BMP plan that has been developed to manage the quality of water to be discharged as a result of storm events associated with the construction site activity and management of non-storm water pollutant sources identified as part of this certification.

Signed _____title_____, ____ Typed or printed name¹ signature

1. Sub Contractor Note: to be signed by a person who is the owner, a responsible corporate officer, a general partner or the proprietor or a person designated to have the authority to sign reports by such a person in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601. Reference the Project Control Number (PCN) and KPDES number when one has been issued.



Andy Beshear GOVERNOR ENERGY AND ENVIRONMENT CABINET

DEPARTMENT FOR ENVIRONMENTAL PROTECTION

300 Sower Boulevard Frankfort, Kentucky 40601 Phone: (502) 564-2150 Fax: 502-564-4245

May 15, 2025

Matthew Bullock KYTC District 5 8310 Westport Rd Louisville, KY 40242-3042

> Re: KYR10 Coverage Acknowledgment KPDES No.: KYR10T482 05-0048-10 Permit Type: Construction Stormwater AI ID: 49202 Jefferson County, Kentucky

Dear Matthew Bullock:

The discharges associated with the Notice of Intent you submitted have been approved for coverage under the "Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Storm Water Discharges Associated with Construction Activities (KYR100000)" master general permit. Your coverage becomes effective on the date of this letter. This coverage automatically terminates two years from the effective date of your coverage unless an extension is requested prior to the termination date, or the Division of Water revokes coverage, whichever comes first. During this period of coverage all discharges shall comply with the conditions of the KYR100000 master general permit. This permit and links to the eNOI (and permit coverage extension) and eNOT forms can be found on our website:

 $\underline{https://eec.ky.gov/Environmental-Protection/Water/PermitCert/KPDES/Documents/KYR10PermitPage.pdf.$

Any person aggrieved by the issuance of a permit final decision may demand a hearing pursuant to KRS 224.10-420(2) within thirty (30) days from the date of the issuance of this letter. Any demand for a hearing on the permit shall be filed in accordance with the procedures specified in KRS 224.10-420, 224.10-440, 224.10-470, and the regulations promulgated thereto. The request for hearing should be submitted in writing to the Energy and Environment Cabinet, Office of Administrative Hearings, 211 Sower Boulevard, Frankfort, Kentucky 40601 and the Commonwealth of Kentucky, Energy and Environment Cabinet, Division of Water, 300 Sower Boulevard, Frankfort, Kentucky 40601. For your record keeping purposes, it is recommended that these requests be sent by certified mail. The written request must conform to the appropriate statutes referenced above.

Any questions concerning the general permit and its requirements should be directed to me at 502-782-4213 or email me at sam.burns@ky.gov

Construction Site GPS Coordinates: 38.270361, -85.703358 Receiving Water: Beargrass Creek Muddy Fork

Sincerely,

Sam Burns Surface Water Permits Branch Division of Water

cc: Kourosh Namin, eNOI Preparer Todd Giles, Louisville Regional Office Lori Rafferty, Louisville & Jefferson Co MSD MS4 Coordinator



Anthony R. Hatton

Thank you for submitting your information via the Kentucky Department for Environmental Protection eForms website. Please save a copy of this submittal for your records. We recommend saving a copy as a .mht, .html, or .htm file. The Submittal ID for this transaction is 506579 and was submitted by EECPPC\sam.burns on

. If you need to contact EEC regarding your submission, please reference your Submittal ID. The eForm Submittal ID allows you to use the data from this submittal as a template and/or download a copy of your submittal.

| | - | | | | | | |
|---|--------------------|---|-----------------------------|--|--|--|--|
| KPDES.img | | | JCKY POLLUTION DISCHARGE | | | | |
| | | ELIMINATION SYSTEM (KPDES) | | | | | |
| | | Notice of Intent (NOI) for coverage of Storm Water Discharge Associated with Construction Activities Under the KPDES Storm Water General Permit KYR100000 | | | | | |
| | | Click here for Instructions (Controls/KYR10%20Instructions.pdf) | | | | | |
| | | Click here to obtain information and a copy of the KPDES Gen Permit. (https://eec.ky.gov/Environmental- Protection/Water/PermitCert/KPDES/Documents/KYR10Permit | | | | | |
| | | (*) indicates a required field; (√) indicates a field may be required based on user input o is an optionally required field | | | | | |
| General Comments: | | 1 | | | | | |
| Applicant Comment: | | | | | | | |
| EEC Reviewer Comment: | | | | | | | |
| | | | | | | | |
| Reason for Submittal:(*) | Agency Interest ID |): | Permit Number:(√) | | | | |
| Application for New Permit C | Agency Interest | ID | KPDES Permit Number | | | | |
| If change to existing permit coverage is requested, describe the changes for which modification of coverage is being sought:(√) | | | | | | | |
| ELIGIBILITY: Stormwater discharges associated with c the case of a common plan of developme more of disturbance. | | - | | | | | |

| COVERAGE: Applicants shall complete and submit the eNOI-SWCA a minimum of seven (7) days before the proposed date for commencement of construction activities. Applicants shall receive written notification from the Division of Water before being authorized to discharge under the terms of the KYR10 General Permit. | | | | | | | | | |
|--|---|-----------|----------|-------------|-------|------------------|---------------|--|--|
| EXCLUSIONS: The following are excluded from coverage under this general permit: 1) Are conducted at or on properties that have obtained an individual KPDES permit for the discharge of other wastewaters which requires the development and implementation of a Best Management Practices (BMP) plan; 2) Any operation that the DOW determines an individual permit would better address the discharges from that operation; 3) Any project that discharges to an Impaired Water listed in the most recent Integrated Report, §305(b) as impaired for sediment and for which an approved TMDL has been developed. | | | | | | | | | |
| SECTION I FACILITY OPERATOR IN | IFORMAT | ION (PERM | /ITTEE) | | | | | | |
| Company Name:(√) | | First Na | me:(√) | | M.I.: | Last Na | me:(√) | | |
| KYTC D5 | | MATT | | | N | BULL | ОСК | | |
| Mailing Address:(*) | City:(*) | | | State:(*) | | | Zip:(*) | | |
| 8310 WESTPORT ROAD | LOUI | SVILLE | | Kentu | ucky | ~ | 40242 | | |
| eMail Address:(*) | | | Busines | s Phone:(* |) | Alternate Phone: | | | |
| matt.bullock@ky.gov | | | 502-2 | 10-5400 | | 502-764-0832 | | | |
| Additional Facility Operator information(| Additional Facility Operator information(Co-Permittee) required ?(*) No | | | | | | | | |
| Section I Comments: | | | | | | | | | |
| Applicant Comment: | | | | | | | /_ | | |
| EEC Reviewer Comment: | | | | | | | | | |
| | | | | | | | | | |
| SECTION II GENERAL SITE LOCATI | ON INFO | RMATION | | | | | | | |
| Project Name:(*) | | | Status o | | | SIC Cod | de(*) | | |
| 05-0048-10 | | | | Operator(*) | | 1611 | Highway and 😽 | | |
| | | | State | Governme | ent 🗸 | | | | |
| Company Name:(√) | | First Na | me:(√) | | M.I.: | Last Na | me:(√) | | |
| KYTC D5 | | MATT | | | N | BULL | ОСК | | |
| Site Physical Address:(*) | | | | | | | | | |

| I-71 BETWEEN FRANKFORT AVENUE AND ZORN AVENUE | | | | |
|--|---|---|--|---------|
| City:(*) | | State:(*) | | Zip:(*) |
| LOUISVILLE | | Kentucky | ~ | 40206 |
| Jefferson | DD Converter (https://www.fcc.gov/media/radio/dms- decimal) | | de(decimal degrees)(*) 93358 ecimal places | |
| Section II Comments: | | | | |
| Applicant Comment: | | | | |
| EEC Reviewer Comment: | | | | |
| Section III requires part A or part B to be com | - | | | |
| Project Description:(*) JEFFERSON COUNTY I-71 WIDENING | 3 | | | |
| Was the pre-development land used for ag | griculture ?(*) | Will there be demo renovated before J Yes | | |
| Select the type of construction site (check | all that apply)(*) | | | |
| Single-Family Residential | | | | |
| Multi-Family Residential | | | | |
| Commercial | | | | |
| Industrial | | | | |
| Institutional | | | | |
| Highway or Road | | | | |
| | | | | |

| Utility | |
|--|---|
| Other | |
| a. For single projects provide the following information | |
| Total Number of Acres in Project: (\checkmark) | Total Number of Acres Disturbed:(√) |
| 108.69 | 47.63 |
| Anticipated Start Date:(√) | Anticipated Completion Date: (\checkmark) |
| 8/31/2025 | 9/30/2027 |
| b. For common plans of development provide the follow | ing information |
| Total Number of Acres in Project: (\checkmark) | Total Number of Acres Disturbed: (\checkmark) |
| # Acre(s) | # Acre(s) |
| Number of individual lots in development, if applicable: | Number of lots in development:(\checkmark) |
| (√) | # lot(s) |
| # lot(s) | |
| Total acreage of lots intended to be developed: (\checkmark) | Number of acres intended to be disturbed at any one |
| Project Acres | time:(√) |
| | |
| Anticipated Start Date:(√) | Anticipated Completion Date:(√) |
| List Building Contractor(s) at the time of Application:(√) | |
| Section III Comments: | |
| Applicant Comment: | |
| | / |
| EEC Reviewer Comment: | |
| | // |
| SECTION IV INFORMATION IS ALWAYS REQUIRED FO | OR ONSITE POINT OF DISCHARGE AND RECEIVING |

Complete the following table if the permitted site discharges to a water body. Please note that if you enter a row in hte below table, all columns are required to be filled out.

Unnamed Tributary?: Does discharge enter an unnamed tributary prior to entering a named receiving water? **Latitude in decimal degrees:** Format must be between 36.490000 and 39.150000, with a minimum of 5 decimal points of

accuracy.

Longitude in decimal degrees: Format must be between -89.580000 and -81.960000, with a minimum of 5 decimal points of accuracy.

Receiving Water Name: Receiving water name must be from the following list of possible receiving waters.(click here for a list (Controls/ReceivingStream.htm)). If the discharge flows into an unnamed tributary, please enter the first "named" receiving water for which the unnamed tributary(ies) eventually flows into.

| Jnnamed Tributary? | Longitude | Receiving Water Name | |
|--------------------|-----------|----------------------|-----------------|
| No | 38.262486 | -85.723876 | BEARGRASS CREEK |
| No | 38.276844 | -85.694683 | MUDDY FORK |
| No | 38.273803 | -85.699629 | MUDDY FORK |
| No | 38.275235 | -85.696859 | MUDDY FORK |
| No | 38.266535 | -85.709937 | MUDDY FORK |
| No | 38.276543 | -85.694276 | MUDDY FORK |
| No | 38.277314 | -85.693794 | MUDDY FORK |
| No | 38.27798 | -85.692388 | MUDDY FORK |
| No | 38.277099 | -85.693877 | MUDDY FORK |
| No | 38.279014 | -85.690726 | MUDDY FORK |
| No | 38.262301 | -85.722511 | BEARGRASS CREEK |
| No | 38.274466 | -85.696527 | MUDDY FORK |
| No | 38.262471 | -85.722561 | BEARGRASS CREEK |
| No | 38.263328 | -85.718169 | BEARGRASS CREEK |
| No | 38.263534 | -85.717165 | MUDDY FORK |
| No | 38.263966 | -85.715365 | MUDDY FORK |
| No | 38.26378 | -85.716172 | MUDDY FORK |
| No | 38.264766 | -85.713291 | MUDDY FORK |
| No | 38.266093 | -85.710643 | MUDDY FORK |
| No | 38.265462 | -85.711798 | MUDDY FORK |
| No | 38.266903 | -85.709306 | MUDDY FORK |
| No | 38.267035 | -85.709476 | MUDDY FORK |
| No | 38.267853 | -85.707964 | MUDDY FORK |
| No | 38.267233 | -85.708891 | MUDDY FORK |
| No | 38.268386 | -85.707165 | MUDDY FORK |
| No | 38.271935 | -85.701864 | MUDDY FORK |
| No | 38.269274 | -85.70584 | MUDDY FORK |
| No | 38.272941 | -85.700742 | MUDDY FORK |
| No | 38.273946 | -85.698035 | MUDDY FORK |

| No | 38.273671 | -85.698209 | MUDDY FORK |
|----|-----------|------------|-----------------|
| 10 | 38.275018 | -85.697879 | MUDDY FORK |
| lo | 38.274064 | -85.697248 | MUDDY FORK |
| lo | 38.273444 | -85.699607 | MUDDY FORK |
| 10 | 38.275185 | -85.697991 | MUDDY FORK |
| 10 | 38.274734 | -85.69786 | MUDDY FORK |
| lo | 38.27466 | -85.697787 | MUDDY FORK |
| lo | 38.274582 | -85.697741 | MUDDY FORK |
| 10 | 38.275305 | -85.696945 | MUDDY FORK |
| ٩o | 38.274502 | -85.697671 | MUDDY FORK |
| 10 | 38.275163 | -85.696815 | MUDDY FORK |
| 10 | 38.275078 | -85.69673 | MUDDY FORK |
| 10 | 38.275411 | -85.697257 | MUDDY FORK |
| lo | 38.274688 | -85.696678 | MUDDY FORK |
| lo | 38.275932 | -85.695662 | MUDDY FORK |
| ło | 38.262732 | -85.721214 | BEARGRASS CREEK |
| ٩o | 38.276253 | -85.695956 | MUDDY FORK |
| ю | 38.276141 | -85.695331 | MUDDY FORK |
| No | 38.276703 | -85.694432 | MUDDY FORK |
| ٧o | 38.27562 | -85.695341 | MUDDY FORK |

This grid can be edited either directly on this page or by editing the information in an excel sheet. If you would like to edit this information in an excel sheet, first use the right button (export) to download the sheet. After adding your data, save the sheet, and use the left button (import) to import the same file to this grid.

Section IV Comments:

Applicant Comment:

EEC Reviewer Comment:

SECTION V -- Section V MUST BE COMPLETED IF WITHIN A MS4 AREA

Name of MS4:

MSD MS4

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F

| Section V Comments: | | | | | | |
|--|----------------------|----------------------------|-----------|-----------------------|-------------|-------------------|
| Applicant Comment: | | | | | | |
| | | | | | | |
| EEC Reviewer Comment: | | | | | | |
| | | | | | | |
| | | | | | | 12 |
| SECTION VI WILL THE PI THE RIPARIAN ZONE? | ROJECT R | EQUIRE CONSTRU | JCTION AC | CTIVITIES IN A WATE | ER BODY, | FLOODPLAIN OR |
| Will the project require const body or the riparian zone?:(* | | ivities in a water | Yes | | | ~ |
| If Yes, describe scope of acti | ivity: (√) | | We a | re replacing and wide | ening the s | uperstructure, of |
| Is a Clean Water Act 404 permit required?:(*) No | | | | ~ | | |
| Is a Clean Water Act 401 Water Quality Certification required?:(*) | | | | • | | |
| Section VI Comments: | Section VI Comments: | | | | | |
| Applicant Comment: | Applicant Comment: | | | | | |
| | | | | | | / |
| EEC Reviewer Comment: | | | | | | |
| | | | | | | |
| | | | | | | // |
| SECTION VII NOI PREPA | RER INFO | RMATION | | | | |
| First Name:(*) | M.I.: | Last Name:(*) | | Company Name:(| *) | |
| KOUROSH | N | NAMIN | | KYTC D5 | | |
| Mailing Address:(*) | | City:(*) State:(*) Zip:(*) | | Zip:(*) | | |
| 8310 WESTPORT ROAD LOUISVILLE Kentucky 40242 | | | | | | |
| eMail Address:(*) Business Phone:(*) Alternate Phone: | | | | te Phone: | | |
| Kourosh.Namin@ky.gov | | | 502-7 | 64-0078 | Phon | e |
| Section VII Comments: | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| Applicant Comment: There is no other phone number for this individual | | | | | |
|--|--|---|--|--|--|
| EEC Reviewer Comment: | | | | | |
| SECTION VIII ATTACHMENTS | | | | | |
| Facility Location Map:(*) | | Upload file | | | |
| Supplemental Information: | | Upload file | d file | | |
| Section VIII Comments: | | | | | |
| Applicant Comment: | | | | | |
| EEC Reviewer Comment: | | | | | |
| SECTION IX CERTIFICATION | | | | | |
| accordance with a system designed to a submitted. Based on my inquiry of the p responsible for gathering the information | assure that qualified p erson or persons wh n submitted is, to the nificant penalties for s | chments were prepared under my directio personnel properly gather and evaluate the no manage the system, or those persons of the best of my knowledge and belief, true, a submitting false information, including the | ne information directly ccurate, and | | |
| Signature:(*) | | Title:(*) | | | |
| MATT BULLOCK | | Chief District Engineer | | | |
| First Name:(*) M.I.: MI | | Last Name:(*) BULLOCK | | | |
| eMail Address:(*) Matt.Bullock@ky.gov 502-210-5400 | | *) Alternate Phone: 502-764-0832 | Signature Date:(*) 5/14/2025 | | |
| Section IX Comments: | | | | | |
| Applicant Comment: | | | | | |

| EE | EC Reviewer Comment: | | | |
|----|---|---------------------------|----------------------------|--|
| | | | | |
| | | | | |
| | Click to Save Values for Future Retrieval | Click for Review Complete | Click to Submit Deficiency | |
| | | | | |

GUARDRAIL DELIVERY VERIFICATION SHEET

| Contract Id: | | Contractor: | | |
|---|-----------------|----------------------------|--------------------------------|--|
| Section Engineer: | | _ District & County: | | |
| DESCRIPTION | <u>UNIT</u> | QTY LEAVING PROJECT | QTY RECEIVED@BB YARD | |
| GUARDRAIL (Includes | LF | | | |
| End treatments & crash cushions) STEEL POSTS | EACH | | | |
| STEEL BLOCKS | EACH | | | |
| WOOD OFFSET BLOCKS | EACH | | | |
| BACK UP PLATES | EACH | | | |
| CRASH CUSHION | EACH | | | |
| NUTS, BOLTS, WASHERS | BAG/BCKT | | | |
| DAMAGED RAIL TO MAINT. FACILI | TY LF | | | |
| DAMAGED POSTS TO MAINT. FACI | LITY EACH | | | |
| * <u>Required Signatures before</u> | e Leaving Proje | ect Site | | |
| Printed Section Engineer's Re | epresentative_ | | & Date | |
| Signature Section Engineer's | Representativ | e | _& Date | |
| Printed Contractor's Represe | entative | | _& Date | |
| Signature Contractor's Repre | esentative | | _& Date | |
| | | | on truck must be counted & the | |
| quantity received column co | | | | |
| Printed Bailey Bridge Yard Re | epresentative_ | | & Date | |
| Signature Bailey Bridge Yard Representative& Date | | | _& Date | |
| Printed Contractor's Represe | entative | | _& Date | |
| Signature Contractor's Representative | | | _& Date | |

**Payment for the bid item remove guardrail will be based upon the quantities shown in the Bailey Bridge Yard received column. Payment will not be made for guardrail removal until the guardrail verification sheets are electronically submitted to the Section Engineer by the Bailey Bridge Yard Representative.

Completed Form Submitted to Section Engineer Date: _____

Ву: _____

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

STANDARD SPECIFICATIONS

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 2019 and Standard Drawings, Edition of 2020.

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

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.
- 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.

- 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

1I

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:

CodePay Item02671Portable Changeable Message Sign

Each

Pay Unit

Effective June 15, 2012

11E

SPECIAL NOTE FOR BORING AND JACKING STEEL PIPE WITHOUT CARRIER PIPE

This Special Note will apply where indicated on the plans or in the proposal. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction, current edition.

1.0 DESCRIPTION. Bore and jack steel pipe. Use this note when no carrier pipe will be encased.

2.0 MATERIALS.

2.1 Pipe. Provide plain end steel pipe with a specific minimum yield strength, SMYS, of at least 35,000 psi and tensile strength of 60,000 psi per API-5L grade B material. The steel pipe supplied shall be manufactured by the seamless, electric-weld, submerged-arc weld or gas metal-arc well process as specified in API –5L. Certification of 35,000 psi SMYS shall be furnished by the supplier through the Contractor to the Engineer to retain 3 copies.

| MINIMUM WALL THICKNESS FOR STEEL PIPE | | | |
|---------------------------------------|-------------------------|--|--|
| Nominal Diameter (Inches) | Wall Thickness (Inches) | | |
| | | | |
| 18 or less | 0.375 | | |
| 24 | 0.500 | | |
| 30 | 0.500 | | |
| 36 | 0.532 | | |
| 42 | 0.625 | | |

2.2 Grout. Conform to Subsection 601.03.03.

2.3 High Grade Bentonite. Conform to the following:

| API 13A Section 4 | | | |
|--|----------------------------|---------------|--|
| Requirement | Specification | Result | |
| Viscometer Dial Reading at 600 rpm | 30, minimum | 40 | |
| Yield Point/Plastic Viscosity Ratio | 3, maximum | 3.00 maximum | |
| Filtrate Volume | 15 cm3, maximum | 14.50 maximum | |
| Residue greater than 75 micrometers | 4.0 wt percent maximum | 1.0-1.5 % | |
| Moisture | 10.0 wt percent maximum | 9.0-9.5% | |

3.0 CONSTRUCTION. Perform the following:

- 1. Locate a suitable pit and obtain the Engineer's approval.
- 2. Excavate the pit or trenches for the BORE AND JACK operation and for placing the end joints of pipe, when required. Securely sheet and brace the pits or trenches to prevent caving, where necessary.

- 3. When installing pipe under railroads, highways, streets, or other facilities by Bore and Jack, perform construction without interfering with the facility operation or weakening the roadbed or structure.
- 4. Place excavated material near the top of the working pit and dispose of it as required. Use water or other fluids with the boring operation to lubricate the cuttings. Do not perform jetting.
- 5. In unconsolidated soil formations, use a gel-forming collodial drilling fluid with at least 10 percent of high grade bentonite to consolidate excavated material, seal the walls of the hole, and lubricate subsequent removal of material and immediate pipe installation.
- 6. Ensure that the diameter of the excavation conforms to the outside diameter of the pipe as closely as possible.
- 7. Pressure grout voids that develop during the installation operation and that the Engineer determines are detrimental to the Work.
- 8. To force the pipe through the roadbed into the bored space, use a jack with a head constructed to apply uniform pressure around the ring of the pipe, which shall be square cut.
- 9. Set the pipe to be jacked on guides, braced together to properly support the pipe section and to direct it to the proper line and grade.
- 10. When the installation is made by concurrent boring and jacking, solidly weld all joints. Ensure the weld is strong enough to withstand the forces exerted from the boring and jacking operations as well as the vertical loading imposed on the pipe after installation and that it provides a smooth, non-obstructing joint in the interior of the pipe.
- 11. When the pipe is installed in open trench, bed and backfill according to Section 701.
- 12. The line and grade from the pipe's final position, as shown on plans, may vary no more than 2 percent in lateral alignment and one percent in vertical grade. Ensure that the final grade of the flow line is in the direction indicated on the Plans.
- 13. Use a cutting edge around the head end. Extend it a short distance beyond the pipe end with inside angles or lugs to keep the cutting edge from slipping back into the pipe.
- 14. Once the pipe installation begins, proceed with the operation without interruption to prevent the pipe from becoming firmly set in the embankment.
- 15. Remove and replace pipe damaged in jacking operations.
- 16. After completing the installation, backfill the excavated pits and trenches with flowable fill according to Section 601.03.03 B) 5 a) if the pit is in median area where it will have pavement over it.

4.0 MEASUREMENT. The Department will measure the completed length of Bore and Jacked pipe through the flowline from end to end in linear feet. The Department will not measure pressure grouting voids or removal and replacement of pipe damaged in jacking operations for payment and will consider it incidental to Bore and Jack. When abandoning a bore hole due to mechanical malfunction, improper alignment, or other problems due to construction operations, the Department will not measure the backfill and relocation for payment and will consider it incidental to this item of work. When abandoning a bore hole due to an unforeseen physical obstruction or situation, the Department will measure the work according to a negotiated supplemental agreement.

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

11E

<u>Code</u> <u>Pay Item</u> ---- Bore and Jack, Size Pipe <u>Pay Unit</u> Linear Foot

The Department will consider payment as full compensation for all materials, earthwork, shoring, pipe and work required under this section.

June 15, 2012

SPECIAL NOTE FOR BARCODE LABEL ON PERMANENT SIGNS

1.0 DESCRIPTION. Install barcode label on sheeting signs. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction, current edition.

2.0 MATERIALS. The Department will provide the Contractor with a 2 inch x 1 inch foil barcode label for each permanent sheeting sign. A unique number will be assigned to each barcode label.

The Contractor shall contact the Operations and Pavement Management Branch in the Division of Maintenance at (502) 564-4556 to obtain the barcode labels.

3.0 CONSTRUCTION. Apply foil barcode label in the lower right quadrant of the sign back. Signs where the bottom edge is not parallel to the ground, the lowest corner of the sign shall serve as the location to place the barcode label. The barcode label shall be placed no less than one-inch and no more than three inches from any edge of the sign. The barcode must be placed so that the sign post does not cover the barcode label.

Barcodes shall be applied in an indoor setting with a minimum air temperature of 50°F or higher. Prior to application of the barcode label, the back of the sign must be clean and free of dust, oil, etc. If the sign is not clean, an alcohol swab shall be used to clean the area. The area must be allowed to dry prior to placement of the barcode label.

Data for each sign shall include the barcode number, MUTCD reference number, sheeting manufacturer, sheeting type, manufacture date, color of primary reflective surface, installation date, latitude and longitude using the North American Datum of 1983 (NAD83) or the State Plane Coordinates using an x and y ordinate of the installed location.

Data should be provided electronically on the TC 71-229 Sign Details Information and TC 71-230 Sign Assembly Information forms. The Contractor may choose to present the data in a different format provided that the information submitted to the Department is equivalent to the information required on the Department TC forms. The forms must be submitted in electronic format regardless of which type of form is used. The Department will not accept PDF or handwritten forms. These completed forms must be submitted to the Department prior to final inspection of the signs. The Department will not issue formal acceptance for the project until the TC 71-229 and TC-230 electronic forms are completed for all signs and sign assemblies on the project.

4.0 MEASUREMENT. The Department will measure all work required for the installation of the barcode label and all work associated with completion and submission of the sign inventory data (TC 71-229 and TC 71-230).

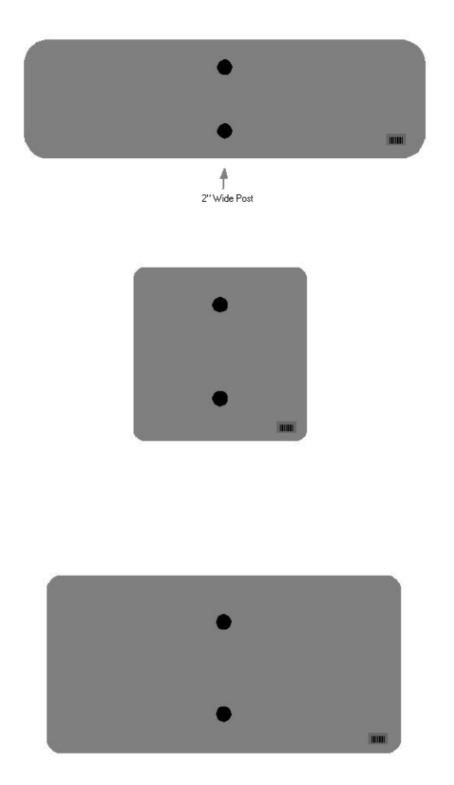
The installation of the permanent sign will be measured in accordance to Section 715.

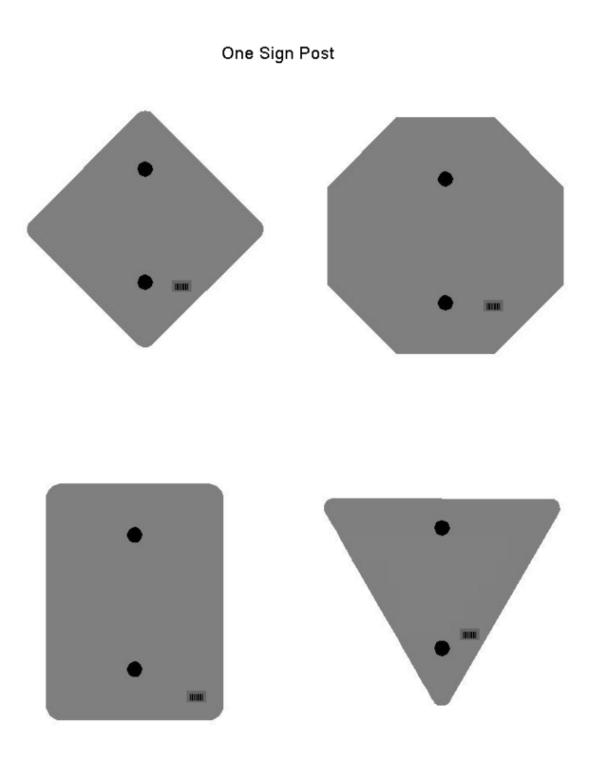
5.0 PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

| Code | Pay Item | Pay Unit |
|---------|------------------------|----------|
| 24631EC | Barcode Sign Inventory | Each |

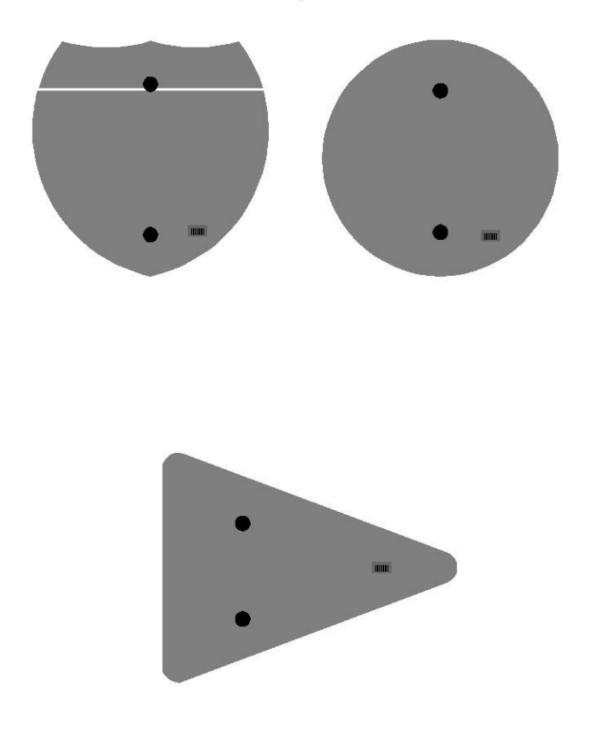
The Department will not make payment for this item until all barcodes are installed and sign inventory is complete on every permanent sign installed on the project. The Department will make payment for installation of the permanent sign in accordance to Section 715. The Department will consider payment as full compensation for all work required under this special note.

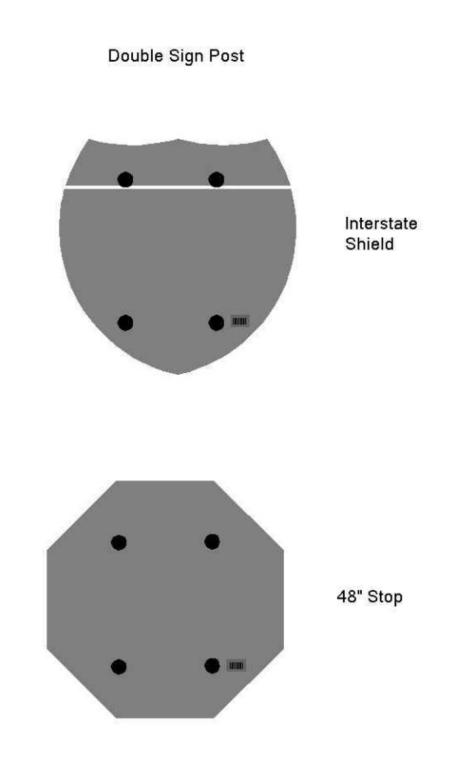
One Sign Post



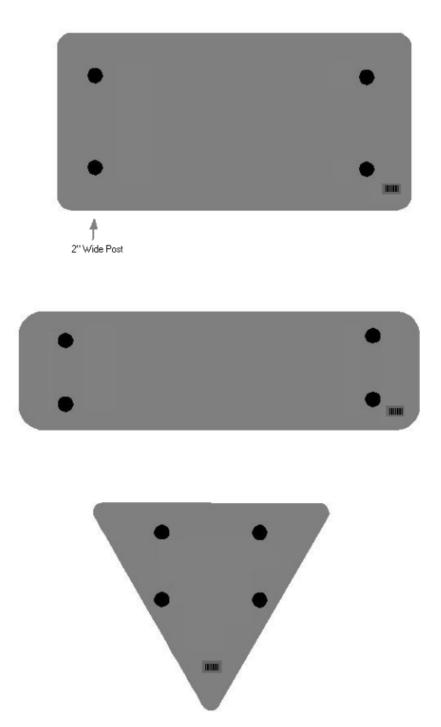








2 Post Signs



SPECIAL NOTE FOR LONGITUDINAL PAVEMENT JOINT ADHESIVE

1. DESCRIPTION. This specification covers the requirements and practices for applying an asphalt adhesive material to the longitudinal joint of the surface course of an asphalt pavement. Apply the adhesive to the face of longitudinal joint between driving lanes for the first lane paved. Then, place and compact the adjacent lane against the treated face to produce a strong, durable, waterproof longitudinal joint.

2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Joint Adhesive. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide an adhesive conforming to the following requirements:

| Property | Specification | Test Procedure |
|------------------------------|---------------|----------------------|
| Viscosity, 400 ° F (Pa·s) | 4.0 - 10.0 | ASTM D 4402 |
| Cone Penetration, 77 ° F | 60 - 100 | ASTM D 5329 |
| Flow, 140 ° F (mm) | 5.0 max. | ASTM D 5329 |
| Resilience, 77 ° F (%) | 30 min. | ASTM D 5329 |
| Ductility, 77 ° F (cm) | 30.0 min. | ASTM D 113 |
| Ductility, 39 ° F (cm) | 30.0 min. | ASTM D 113 |
| Tensile Adhesion, 77 ° F (%) | 500 min. | ASTM D 5329, Type II |
| Softening Point, ° F | 171 min. | AASHTO T 53 |
| Asphalt Compatibility | Pass | ASTM D 5329 |

Ensure the temperature of the pavement joint adhesive is between 380 and 410 $^{\circ}$ F when the material is extruded in a 0.125-inch-thick band over the entire face of the longitudinal joint.

2.2. Equipment.

2.2.1 Melter Kettle. Provide an oil-jacketed, double-boiler, melter kettle equipped with any needed agitation and recirculating systems.

2.2.2 Applicator System. Provide a pressure-feed-wand applicator system with an applicator shoe attached.

2.3 Personnel. Ensure a technical representative from the manufacturer of the pavement joint adhesive is present during the initial construction activities and available upon the request of the Engineer.

3. CONSTRUCTION.

3.1 Surface Preparation. Prior to the application of the pavement joint adhesive, ensure the face of the longitudinal joint is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the joint face by the use of compressed air.

Ensure this preparation process occurs shortly before application to prevent the return of debris on the joint face.

3.2 Pavement Joint Adhesive Application. Ensure the ambient temperature is a minimum of 40 $^{\circ}$ F during the application of the pavement joint adhesive. Prior to applying the adhesive, demonstrate competence in applying the adhesive according to this note to the satisfaction of the Engineer. Heat the adhesive in the melter kettle to the specified temperature range. Pump the adhesive from the melter kettle through the wand onto the vertical face of the cold joint. Apply the adhesive in a continuous band over the entire face of the longitudinal joint. Do not use excessive material in either thickness or location. Ensure the edge of the extruded adhesive material is flush with the surface of the pavement. Then, place and compact the adjacent lane against the joint face. Remove any excessive material extruded from the joint after compaction (a small line of material may remain).

3.3 Pavement Joint Adhesive Certification. Furnish the joint adhesive's certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a random sample of pavement joint adhesive from each manufacturer's lot of material. Extrude two 5 lb. samples of the heated material and forward the sample to the Division of Materials for testing. Reynolds oven bags, turkey size, placed inside small cardboard boxes or cement cylinder molds have been found suitable. Ensure the product temperature is 400°F or below at the time of sampling.

- 4. MEASUREMENT. The Department will measure the quantity of Pavement Joint Adhesive in linear feet. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of Pavement Joint Adhesive, the cleaning of the joint face, or furnishing and placing the adhesive. The Department will consider all such items incidental to the Pavement Joint Adhesive.
- 5. PAYMENT. The Department will pay for the Pavement Joint Adhesive at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

11N

| Pavement Joint Adhesive Price Adjustment Schedule | | | | | | | | |
|---|---------------|----------|-----------|-----------|-----------|--------|--|--|
| Test | Specification | 100% Pay | 90% Pay | 80% Pay | 50% Pay | 0% Pay | | |
| Joint Adhesive Referenced in Subsection 2.1.1 | | | | | | | | |
| Viscosity, 400 ° F (Pa•s) | | | 3.0-3.4 | 2.5-2.9 | 2.0-2.4 | ≤1.9 | | |
| ASTM D 3236 | 4.0-10.0 | 3.5-10.5 | 10.6-11.0 | 11.1-11.5 | 11.6-12.0 | ≥ 12.1 | | |
| Cone Penetration, 77 ° F | | | 54-56 | 51-53 | 48-50 | ≤47 | | |
| ASTM D 5329 | 60-100 | 57-103 | 104-106 | 107-109 | 110-112 | ≥113 | | |
| Flow, 140 ° F (mm) ASTM D 5329 | ≤ 5.0 | ≤ 5.5 | 5.6-6.0 | 6.1-6.5 | 6.6-7.0 | ≥ 7.1 | | |
| Resilience, 77 ° F (%) ASTM D 5329 | ≥ 30 | ≥ 28 | 26-27 | 24-25 | 22-23 | ≤21 | | |
| Tensile Adhesion, 77 ° F (%) ASTM D 5329 | ≥ 500 | ≥ 490 | 480-489 | 470-479 | 460-469 | ≤ 459 | | |
| Softening Point, °F AASHTO T 53 | ≥ 171 | ≥169 | 166-168 | 163-165 | 160-162 | ≤159 | | |
| Ductility, 77 ° F (cm) ASTM D 113 | ≥ 30.0 | ≥29.0 | 28.0-28.9 | 27.0-27.9 | 26.0-26.9 | ≤ 25.9 | | |
| Ductility, 39 ° F (cm) ASTM D 113 | ≥ 30.0 | ≥ 29.0 | 28.0-28.9 | 27.0-27.9 | 26.0-26.9 | ≤ 25.9 | | |

<u>Code</u> 20071EC Pay Item Joint Adhesive

<u>Pay Unit</u> Linear Foot

May 7, 2014

SPECIAL PROVISION FOR EMBANKMENT AT BRIDGE END BENT STRUCTURES

This Special Provision will apply when indicated on the plans or in the proposal. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction, Current Edition.

1.0 DESCRIPTION. Construct a soil, granular, or rock embankment with soil, granular or cohesive pile core and place structure granular backfill, as the Plans require. Construct the embankment according to the requirements of this Special Provision, the Plans, Standard Drawing RGX 100 and 105, and the Standard Specifications, Current Edition.

2.0 MATERIALS.

2.1 Granular Embankment. Conform to Subsection 805.10. When Granular Embankment materials are erodible or unstable according to Subsection 805.03.04, use the Special Construction Methods found in 3.2 of the Special Provision.

2.2 Rock Embankment. Provide durable rock from roadway excavation that consists principally of Unweathered Limestone, Durable Shale (SDI equal to or greater than 95 according to KM 64-513), or Durable Sandstone.

2.3 Pile Core. Provide a pile core in the area of the embankments where deep foundations are to be installed unless otherwise specified. The Pile Core is the zone indicated on Standard Drawings RGX 100 and 105 designated as Pile Core. Material control of the pile core area during embankment construction is always required. Proper Pile Core construction is required for installation of foundation elements such as drilled or driven piles or drilled shafts. The type of material used to construct the pile core is as directed in the plans or below. Typically, the pile core area will be constructed from the same material used to construct the surrounding embankment. Pile Core can be classified as one of three types:

A) Pile Core - Conform to Section 206 of the Standard Specifications. Provide pile core material consisting of the same material as the adjacent embankment except the material in the pile core area shall be free of boulders or particle sizes larger than 4 inches in any dimension or any other obstructions that may hinder pile driving operations. If the pile core material hinders pile driving operations, take the appropriate means necessary to reach the required pile tip elevation, at no expense to the Department.

B) Granular Pile Core. Granular pile core is required only when specified in the plans. Select a gradation of durable rock to facilitate pile driving that conforms to Subsection 805.11. If granular pile core material hinders pile driving operations, take appropriate means necessary to reach the required pile tip elevation, at no expense to the Department.

C) Cohesive Pile Core. Cohesive Pile Core is required only when specified in the plans. Conform to Section 206 of the Standard Specifications and use soil with at least 50 percent passing a No. 4 sieve having a minimum Plasticity Index (PI) of 10. In addition, keep the cohesive pile core free of boulders, larger than 4 inches in any dimension, or any other obstructions, which would interfere with drilling operations. If cohesive pile core material interferes with drilling operations, take appropriate means necessary to maintain excavation stability, at no expense to the Department.

2.4 Structure Granular Backfill. Conform to Subsection 805.11

2.5 Geotextile Fabric. Conform to Class 1 or Class 2 in Section 214 and 843.

3.0 CONSTRUCTION.

3.1 General. Construct roadway embankments at end bents according to Section 206 and in accordance with the Special Provision, the Plans, and Standard Drawings for the full embankment section. In some instances, granular or rock embankment will be required for embankment construction for stability purposes, but this special provision does not prevent the use of soil when appropriate. Refer to the plans for specific details regarding material requirements for embankment construction. Place and compact the pile core and structure granular backfill according to the applicable density requirements for the project. If the embankment and pile core are dissimilar materials (i.e., a granular pile core is used with a soil embankment or a cohesive pile core is used with a granular embankment), a Geotextile Fabric, will be required between the pile core and embankment in accordance with Sections 214 and 843 of the Standard Specifications.

When granular or rock embankment is required for embankment construction, conform to the general requirements of Subsection 206.03.02 B. In addition, place the material in no greater than 2-foot loose lifts and compact with a vibrating smooth wheel roller capable of producing a minimum centrifugal force of 15 tons. Apply these requirements to the full width of the embankment for a distance of half the embankment height or 50 feet, whichever is greater, as shown on Standard Drawing RGX-105.

When using granular pile core, install 8-inch perforated underdrain pipe at or near the elevation of the original ground in the approximate locations depicted on the standard drawing, and as the Engineer directs, to ensure positive drainage of the embankment. Wrap the perforated pipe with a fabric of a type recommended by the pipe manufacturer.

After constructing the embankment, excavate for the end bent cap, drive piling, install shafts or other foundation elements, place the mortar bed, construct the end bent, and complete the embankment to finish grade according to the construction sequence shown on the Plans or Standard Drawings and as specified hereinafter.

Certain projects may require widening of existing embankments and the removal of substructures. Construct embankment according to the plans. Substructure removal shall be completed according to the plans and Section 203. Excavation may be required at the existing embankment in order to place the structure granular backfill as shown in the Standard Drawings. After piles are driven or shafts installed (see design drawings), slope the bottom of the excavation towards the ends of the trench as noted on the plans for drainage. Using a separate pour, place concrete mortar, or any class concrete, to provide a base for forming and placing the cap. Place side forms for the end bent after the mortar has set sufficiently to support workmen and forms without being disturbed.

Install 4-inch perforated pipe in accordance with the plans and Standard Drawings. In the event slope protection extends above the elevation of the perforated pipe, extend the pipe through the slope protection.

After placing the end bent cap and achieving required concrete cylinder strengths, remove adjacent forms and fill the excavation with compacted structure granular backfill material (maximum 1' loose lifts) to the level of the berm prior to placing beams for the bridge. Place a geotextile fabric between embankment material and structure granular backfill. After completing the end bent backwall, or after completing the span end wall, place the compacted structure granular backfill (maximum 1' loose lifts) to subgrade elevation. If the original excavation is enlarged, fill the entire volume with compacted structure granular backfill (maximum 1' loose lifts) at no expense to the Department. Do not place backfill before removing adjacent form work. Place structure granular backfill material in trench ditches at the ends of the excavation. Place Geotextile Fabric, over the surface of the compacted structure granular backfill prior to placing aggregate base course.

Tamp the backfill with hand tampers, pneumatic tampers, or other means approved by the Engineer. Thoroughly compact the backfill under the overhanging portions of the structure to ensure that the backfill is in intimate contact with the sides of the structure.

Do not apply seeding, sodding, or other vegetation to the exposed granular embankment.

3.2 Special Construction Methods. Erodible or unstable materials may erode even when protected by riprap or channel lining; use the special construction method described below when using these materials.

Use fine aggregates or friable sandstone granular embankment at "dry land" structures only. Do not use them at stream crossings or locations subject to flood waters.

For erodible or unstable materials having 50 percent or more passing the No. 4 sieve, protect with geotextile fabric. Extend the fabric from the original ground to the top of slope over the entire area of the embankment slopes on each side of, and in front of, the end bent. Cover the fabric with at least 12 inches of non-erodible material.

For erodible or unstable materials having less than 50 percent passing a No. 4 sieve, cover with at least 12 inches of non-erodible material.

Where erodible or unstable granular embankment will be protected by riprap or channel lining, place a geotextile fabric between the embankment and the specified slope protection.

4.0 MEASUREMENT.

4.1 Granular Embankment. The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204. The Department will not measure for payment any Granular Embankment that is not called for in the plans.

The Department will not measure for payment any special construction caused by using erodible or unstable materials and will consider it incidental to the Granular Embankment regardless of whether the erodible or unstable material was specified or permitted.

4.2 Rock Embankment. The Department will not measure for payment any rock embankment and will consider it incidental to roadway excavation or embankment in place, as applicable. Rock embankments will be constructed using granular embankment on projects where there is no available rock present within the excavation limits of the project.

4.3 Pile Core. Pile core will be measured and paid under roadway excavation or embankment in place, as applicable. The Department will not measure the pile core for separate payment. The Department will not measure for payment the 8-inch perforated underdrain pipe and will consider it incidental to the Pile Core.

4.4 Structure Granular Backfill. The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204. The

Department will not measure any additional material required for backfill outside the limits shown on the Plans and Standard Drawings for payment and will consider it incidental to the work.

The Department will not measure for payment the 4-inch perforated underdrain pipe and will consider it incidental to the Structure Granular Backfill.

4.5 Geotextile Fabric. The Department will not measure the quantity of fabric used for separating dissimilar materials when constructing the embankment and pile core and will consider it incidental to embankment construction.

The Department will not measure for payment the Geotextile Fabric used to separate the Structure Granular Backfill from the embankment and aggregate base course and will consider it incidental to Structure Granular Backfill.

The Department will not measure for payment the Geotextile Fabric required for construction with erodible or unstable materials and will consider it incidental to embankment construction.

4.6 End Bent. The Department will measure the quantities according to the Contract. The Department will not measure furnishing and placing the 2-inch mortar or concrete bed for payment and will consider it incidental to the end bent construction.

4.7 Structure Excavation. The Department will not measure structure excavation on new embankments for payment and will consider it incidental to the Structure Granular Backfill or Concrete as applicable.

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

| <u>Code</u> | Pay Item | <u>Pay Unit</u> |
|-------------|-----------------------------|-----------------|
| 02223 | Granular Embankment | Cubic Yards |
| 02231 | Structure Granular Backfill | Cubic Yards |

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

August 5, 2019

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

FHWA-1273 - Revised October 23, 2023

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

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

ATTACHMENTS

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

I. GENERAL

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

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

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

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

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

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

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

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

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

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

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

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

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

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements. **1. Equal Employment Opportunity:** Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

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

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

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

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

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

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

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

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women. d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

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

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

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

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

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

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

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

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

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

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

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

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

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

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

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

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

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

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

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants /

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

9. Selection of Subcontractors, Procurement of Materials

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

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

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

10. Assurances Required:

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

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

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or

(4) Disqualifying the contractor from future bidding as non-responsible.

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

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

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

(1) The number and work hours of minority and nonminority 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 nonminority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

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

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

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

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

1. Minimum wages (29 CFR 5.5)

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

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

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined; (ii) The classification is used in the area by the construction industry; and

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

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

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

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

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

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

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

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

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

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

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

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

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

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

2. Withholding (29 CFR 5.5)

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

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

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

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, <u>31</u> <u>U.S.C. 3901</u>–3907.

3. Records and certified payrolls (29 CFR 5.5)

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

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

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

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

b. Certified payroll requirements (1) Frequency and method of submission. The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Actscovered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

the equal employment opportunity requirements of Executive Order 11246, as amended, and <u>29 CFR part 30</u>.

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

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

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

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

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

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

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

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

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

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, <u>18</u> <u>U.S.C. 1001</u>.

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

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or $\frac{29 \text{ CFR part 1}}{29 \text{ CFR part 1}}$ or $\frac{3}{2}$;

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

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or $\underline{29 \ CFR \ part 1}$ or $\underline{3}$; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or $\underline{29\ CFR\ part\ 1}$ or $\underline{3}.$

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

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

2. Violation; liability for unpaid wages; liquidated

damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR $5.5(b)(2)^*$ for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

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

3. Withholding for unpaid wages and liquidated damages

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

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

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, <u>31</u> <u>U.S.C. 3901</u>–3907.

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

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

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

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

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

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

 the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

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

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

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

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

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

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

VII. SAFETY: ACCIDENT PREVENTION

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

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

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

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

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

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

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

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

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

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

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

1. Instructions for Certification – First Tier Participants:

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

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

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

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350. e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

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

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

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

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

* * * * *

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

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

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

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

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

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

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

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

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

* * * * *

3. Instructions for Certification - Lower Tier Participants:

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

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

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

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

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

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

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

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

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

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

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

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

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

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

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

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

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

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

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

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

XII. USE OF UNITED STATES-FLAG VESSELS:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Standard Title VI/Non-Discrimination Assurances

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

- 1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
- 2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will_not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
- 3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
- [4. Information and Reports: The contractor will_provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
- 5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.
- 6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Standard Title VI/Non-Discrimination Statutes and Authorities

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

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

EXECUTIVE BRANCH CODE OF ETHICS

The Executive Branch Code of Ethics created by Kentucky Revised Statutes (KRS) Chapter 11A, effective July 14, 1992, establishes the ethical standards that govern the conduct of all executive branch employees. The Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

A present or former public servant listed in KRS 11A.010(9)(a) to (g) shall not, within one (1) year following termination of his or her 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 one (1) year, he or she personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his or her 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 to obtain private benefits.

If you have worked for the executive branch of state government within the past year, 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, 1025 Capital Center Drive, Suite 105, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: March 11, 2025

"General Decision Number: KY20250038 05/16/2025

Superseded General Decision Number: KY20240038

State: Kentucky

Construction Type: Highway

Counties: Anderson, Bath, Bourbon, Boyd, Boyle, Bracken, Breckinridge, Bullitt, Carroll, Carter, Clark, Elliott, Fayette, Fleming, Franklin, Gallatin, Grant, Grayson, Greenup, Hardin, Harrison, Henry, Jefferson, Jessamine, Larue, Lewis, Madison, Marion, Mason, Meade, Mercer, Montgomery, Nelson, Nicholas, Oldham, Owen, Robertson, Rowan, Scott, Shelby, Spencer, Trimble, Washington and Woodford 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: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

| If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022: | Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. |
|--|--|
| If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022: | |

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

| Modification Number | Publication Date |
|---------------------|------------------|
| 0 | 01/03/2025 |
| 1 | 03/07/2025 |
| 2 | 04/04/2025 |
| 3 | 05/16/2025 |
| | |

BRIN0004-003 06/01/2024

BRECKENRIDGE COUNTY

| | Rates | Fringes |
|---|------------------|-----------------|
| BRICKLAYER | | 16.57 |
| BRKY0001-005 06/01/2024 | | |
| BULLITT, CARROLL, GRAYSON, HARDII MARION, MEADE, NELSON, OLDHAM, SI COUNTIES: | | |
| | Rates | Fringes |
| BRICKLAYER | .\$ 35.00 | 17.13 |
| BRKY0002-006 06/01/2024 | | |
| BRACKEN, GALLATIN, GRANT, MASON | & ROBERTSON COUN | ITIES: |
| | Rates | Fringes |
| BRICKLAYER | - | 17.13 |
| BRKY0007-004 06/01/2024 | | |
| BOYD, CARTER, ELLIOT, FLEMING, G | REENUP, LEWIS & | ROWAN COUNTIES: |
| | Rates | Fringes |
| BRICKLAYER | .\$ 41.05 | 21.79 |
| BRKY0017-004 06/01/2024 | | |
| ANDERSON, BATH, BOURBON, BOYLE, G HARRISON, JESSAMINE, MADISON, ME OWEN, SCOTT, WASHINGTON & WOODFO | RCER, MONTGOMERY | |
| | Rates | Fringes |
| BRICKLAYER | .\$ 35.00 | 17.13 |
| * CARP0064-001 04/01/2025 | | |
| | Rates | Fringes |
| CARPENTER Diver | | 24.06 24.06 |

PILEDRIVERMAN.....\$ 34.39 24.06

ELEC0212-008 06/05/2024

BRACKEN, GALLATIN and GRANT COUNTIES

| BRACKEN, GALLATIN and GRANT COON | 115 | |
|---|--|--|
| | Rates | Fringes |
| ELECTRICIAN | .\$ 35.43 | 22.05 |
| ELEC0212-014 11/27/2023 | | |
| BRACKEN, GALLATIN & GRANT COUNTI | ES: | |
| | Rates | Fringes |
| Sound & Communication Technician | | 14.54 |
| ELEC0317-012 06/03/2024 | | |
| BOYD, CARTER, ELLIOT & ROWAN COU | NTIES: | |
| | Rates | Fringes |
| ELECTRICIAN (Wiremen) | .\$ 38.30 | 23.12 |
| ELEC0369-007 05/29/2024 | | |
| ANDERSON, BATH, BOURBON, BOYLE, CLARK, FAYETTE, FRAONKLIN, GRAYS JEFFERSON, JESSAMINE, LARUE, MAD MONTGOMERY, NELSON, NICHOLAS, OL SHELBY, SPENCER, TRIMBLE, WASHIN | ON, HARDIN, HARF ISON, MARION, ME DHAM, OWEN, ROBE | RISON, HENRY, ADE, MERCER, RTSON, SCOTT, |
| | Rates | Fringes |
| ELECTRICIAN | - | 21.38 |
| ELEC0575-002 05/29/2023 | | |
| FLEMING, GREENUP, LEWIS & MASON | COUNTIES: | |
| | Rates | Fringes |
| ELECTRICIAN | | 22.26 |
| ENGI0181-018 07/01/2024 | | |
| | Rates | Fringes |
| POWER EQUIPMENT OPERATOR GROUP 1 GROUP 2 GROUP 3 GROUP 4 | .\$ 37.19 .\$ 37.64 .\$ 36.87 | 19.10 19.10 19.10 19.10 |
| OPERATING ENGINEER CLASSIFICATIO | | |
| GROUP 1 - A-Erame Winch Truck. | Auto Patrol· Ba | ckfiller |

GROUP 1 - A-Frame Winch Truck; Auto Patrol; Backfiller; Batcher Plant; Bituminous Paver; Bituminous Transfer Machine; Boom Cat; Bulldozer; Mechanic; Cableway; Carry-All Scoop; Carry Deck Crane; Central Compressor Plant; Cherry Picker; Clamshell; Concrete Mixer (21 cu. ft. or Over); Concrete Paver; Truck-Mounted Concrete Pump; Core Drill; Crane; Crusher Plant; Derrick; Derrick Boat; Ditching & Trenching Machine; Dragline; Dredge Operator; Dredge Engineer; Elevating Grader & Loaders; Grade-All; Gurries; Heavy Equipment Robotics Operator/Mechanic; High Lift; Hoe-Type Machine; Hoist (Two or More Drums); Hoisting Engine (Two or More Drums); Horizontal Directional Drill Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau; Locomotive; Mechanic; Mechanically Operated Laser Screed; Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel Bucket; Overhead Crane; Piledriver; Power Blade; Pumpcrete; Push Dozer; Rock Spreader, attached to equipment; Rotary Drill; Roller (Bituminous); Rough Terrain Crane; Scarifier; Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom; Telescoping Type Forklift; Tow or Push Boat; Tower Crane (French, German & other types); Tractor Shovel; Truck Crane; Tunnel Mining Machines, including Moles, Shields or similar types of Tunnel Mining Equipment

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft.); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (When used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted Conrete Pump; Skid Steer Machine with all Attachments; Switchman or Brakeman; Throttle Valve Person; Tractair & Road Widening Trencher; Tractor (50 H.P. or Over); Truck Crane Oiler; Tugger; Welding Machine; Well Points; & Whirley Oiler

GROUP 3 - All Off Road Material Handling Equipment, including Articulating Dump Trucks; Greaser on Grease Facilities servicing Heavy Equipment

GROUP 4 - Bituminous Distributor; Burlap & Curing Machine; Cement Gun; Concrete Saw; Conveyor; Deckhand Oiler; Grout Pump; Hydraulic Post Driver; Hydro Seeder; Mud Jack; Oiler; Paving Joint Machine; Power Form Handling Equipment; Pump; Roller (Earth); Steerman; Tamping Machine; Tractor (Under 50 H.P.); & Vibrator

CRANES - with booms 150 ft. & Over (Including JIB), and where the length of the boom in combination with the length of the piling leads equals or exceeds 150 ft. - \$1.00 over 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.

IRON0044-009 06/01/2024

BRACKEN, GALLATIN, GRANT, HARRISON, ROBERTSON, BOURBON (Northern third, including Townships of Jackson, Millersburg, Ruddel Mills & Shawhan); CARROLL (Eastern third, including the Township of Ghent); FLEMING (Western part, excluding Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford); MASON (Western two-thirds, including Townships of Dover, Lewisburg, Mays Lick, Maysville, Minerva, Moranburg, Murphysville, Ripley, Sardis, Shannon, South Ripley & Washington); NICHOLAS (Townships of Barefoot, Barterville, Carlisle, Ellisville, Headquarters, Henryville, Morningglory, Myers & Oakland Mills); OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook, Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita & Wheatley); SCOTT (Northern two-thirds, including Townships of Biddle, Davis, Delaplain, Elmville, Longlick, Muddy Ford, Oxford, Rogers Gap, Sadieville, Skinnersburg & Stonewall)

| F | Rates | Fringes |
|-----------------|-------|---------|
| IRONWORKER | | |
| Fence Erector\$ | 33.60 | 23.60 |
| Structural\$ | 35.37 | 23.60 |
| | | |

IRON0070-006 06/01/2024

ANDERSON, BOYLE, BRECKINRIDGE, BULLITT, FAYETTE, FRANKLIN, GRAYSON, HARDIN, HENRY, JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE, WASHINGTON & WOODFORD BOURBON (Southern two-thirds, including Townships of Austerlity, Centerville, Clintonville, Elizabeth, Hutchison, Littlerock, North Middletown & Paris); CARROLL (Western two-thirds, including Townships of Carrollton, Easterday, English, Locust, Louis, Prestonville & Worthville); CLARK (Western two-thirds, including Townships of Becknerville, Flanagan, Ford, Pine Grove, Winchester & Wyandotte); OWEN (Eastern eighth, including Townships of Glenmary, Gratz, Monterey, Perry Park & Tacketts Mill); SCOTT (Southern third, including Townships of Georgetown, Great Crossing, Newtown, Stampling Ground & Woodlake);

Rates Fringes IRONWORKER.....\$ 34.59 25.00 _____ IRON0769-007 06/01/2024 BATH, BOYD, CARTER, ELLIOTT, GREENUP, LEWIS, MONTGOMERY & ROWAN CLARK (Eastern third, including townships of Bloomingdale, Hunt, Indian Fields, Kiddville, Loglick, Rightangele & Thomson); FLEMING (Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford); MASON (Eastern third, including Townships of Helena, Marshall, Orangeburg, Plumville & Springdale); NICHOLAS (Eastern eighth, including the Township of Moorefield Sprout)

Rates Fringes

JEFFERSON COUNTY NHPP 0711(096)

| ZONE 1\$ | 37.66 | 29.24 |
|----------|-------|-------|
| ZONE 2\$ | 38.06 | 29.24 |
| ZONE 3\$ | 39.66 | 29.24 |

ZONE 1 - (no base rate increase) Up to 10 mile radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 2 - (add \$0.40 per hour to base rate) 10 to 50 mile radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 3 - (add \$2.00 per hour to base rate) 50 mile radius & over of Union Hall, 1643 Greenup Ave, Ashland, KY.

LAB00189-003 07/01/2024

BATH, BOURBON, BOYD, BOYLE, BRACKEN, CARTER, CLARK, ELLIOTT, FAYETTE, FLEMING, FRANKLIN, GALLATIN, GRANT, GREENUP, HARRISON, JESSAMINE, LEWIS, MADISON, MASON, MERCER, MONTGOMERY, NICHOLAS, OWEN, ROBERTSON, ROWAN, SCOTT, & WOOLFORD COUNTIES

| | Ra | ates | Fringes |
|-----------|-------|-------|---------|
| | | | |
| Laborers: | | | |
| GROUP | 1\$ 2 | 23.96 | 18.58 |
| GROUP | 2\$ 2 | 24.21 | 18.58 |
| GROUP | 3\$ 2 | 24.26 | 18.58 |
| GROUP | 4\$ 2 | 24.86 | 18.58 |

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 Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

LAB00189-008 07/01/2024

ANDERSON, BULLITT, CARROLL, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES

Rates Fringes

| CI 3. | | | |
|-------|-----|-------|-------|
| GROUP | 1\$ | 23.96 | 18.58 |
| GROUP | 2\$ | 24.21 | 18.58 |
| GROUP | 3\$ | 24.26 | 18.58 |
| GROUP | 4\$ | 24.86 | 18.58 |

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 Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

LABO0189-009 07/01/2024

BRECKINRIDGE & GRAYSON COUNTIES

Rates

Fringes

| Laborers: | | | |
|-----------|-----|-------|-------|
| GROUP | 1\$ | 23.96 | 18.58 |
| GROUP | 2\$ | 24.21 | 18.58 |
| GROUP | 3\$ | 24.26 | 18.58 |
| GROUP | 4\$ | 24.86 | 18.58 |

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 Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

PAIN0012-005 06/11/2005

BATH, BOURBON, BOYLE, CLARK, FAYETTE, FLEMING, FRANKLIN, HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS, ROBERTSON, SCOTT & WOODFORD COUNTIES:

Rates Fringes

| PAINTER | |
|------------------------------------|------|
| Bridge/Equipment Tender | |
| and/or Containment Builder\$ 18.90 | 5.90 |
| Brush & Roller\$ 21.30 | 5.90 |
| Elevated Tanks; | |
| Steeplejack Work; Bridge & | |

| Lead Abatement\$ | 22 30 | 5.90 |
|------------------|-------|------|
| Sandblasting & | 22.50 | 5.90 |
| Waterblasting\$ | 22.05 | 5.90 |
| Spray\$ | | 5.90 |

PAIN0012-017 05/01/2015

BRACKEN, GALLATIN, GRANT, MASON & OWEN COUNTIES:

| | Rates | Fringes |
|---|-------|--------------|
| PAINTER (Heavy & Highway Bridges - Guardrails - Lightpoles - Striping) | | |
| Bridge Equipment Tender and Containment Builder Brush & Roller Elevated Tanks; | - | 9.06 9.06 |
| Steeplejack Work; Bridge & Lead Abatement Sandblasting & Water | | 9.06 |
| Blasting Spray | | 9.06 9.06 |

PAIN0118-004 06/01/2018

ANDERSON, BRECKINRIDGE, BULLITT, CARROLL, GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES:

PAIN1072-003 12/01/2024

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS and ROWAN COUNTIES

| | Rates | Fringes |
|---|------------------|------------------|
| Painters: Bridges; Locks; Dams; Tension Towers & Energized Substations Power Generating Facilitie | - | 23.95 23.95 |
| PLUM0248-003 06/01/2024 | | |
| BOYD, CARTER, ELLIOTT, GREENUP, | LEWIS & ROWAN CO | DUNTIES: |
| | Rates | Fringes |
| Plumber and Steamfitter | \$ 41.50 | 25.01 |
| PLUM0392-007 06/01/2024 | | |
| BRACKEN, CARROLL (Eastern Half) ROBERTSON COUNTIES: | , GALLATIN, GRAN | Γ, MASON, OWEN & |

| 0711(096) | | |
|--|---|--|
| | Rates | Fringes |
| Plumbers and Pipefitters | \$ 40.70 | 26.75 |
| PLUM0502-003 08/01/2024 | | |
| BRECKINRIDGE, BULLITT, CARROLL (Western three-fourths), GRAYSO LARUE, MARION, MEADE, NELSON, O WASHINGTON COUNTIES | N, HARDIN, HEN | RY, JEFFERSON, |
| | Rates | Fringes |
| PLUMBER | | 24.89 |
| * SUKY2010-160 10/08/2001 | | |
| | Rates | Fringes |
| Truck drivers: GROUP 1 GROUP 2 GROUP 3 GROUP 4 | \$ 16.68 ** \$ 16.86 ** | 7.34 7.34 7.34 7.34 |
| TRUCK DRIVER CLASSIFICATIONS | | |
| GROUP 1 - Mobile Batch Truck T | ender | |
| GROUP 2 - Greaser; Tire Change | r; & Mechanic | Tender |
| GROUP 3 - Single Axle Dump; F Trailer when used to pull bui Tandem Axle Dump; Distributor | lding material | s and equipment; |
| GROUP 4 - Euclid & Other Heav Lowboy; Articulator Cat; 5-Ax when used in transporting mat when used to transport buildi Breaker | le Vehicle; Wi erials; Ross C | nch & A-Frame arrier; Forklift |
| | | |
| WELDERS - Receive rate prescrib operation to which welding is i | | erforming |
| | | |
| ** Workers in this classification minimum wage under Executive Or (\$13.30). Please see the Note determination for more informat minimum wage requirements of Ex- currently being enforced as to which the states of Texas, Loui their agencies, are a party. | der 14026 (\$17 at the top of ion. Please al ecutive Order any contract o | .75) or 13658 the wage so note that the 14026 are not r subcontract to |
| Note: Executive Order (EO) 1370 | 6, Establishin | g Paid Sick Leave |

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.

JEFFERSON COUNTY NHPP 0711(096)

Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at

https://www.dol.gov/agencies/whd/government-contracts.

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) (iii)).

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

Union Rate Identifiers

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

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

Union Average Rate Identifiers

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

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based. JEFFERSON COUNTY NHPP 0711(096)

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

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

State Adopted Rate Identifiers

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

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determinationb) an existing published wage determinationc) an initial WHD letter setting forth a position ona wage determination matterd) an initial conformance (additional classification and rate) determination

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

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

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations.

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Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

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

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

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 to an employee at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek. 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

PART IV

BID ITEMS

PROPOSAL BID ITEMS

Report Date 7/2/25

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251013

Section: 0001 - SIGNALS

| LINE | BID CODE | ALT DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|------------|---|----------|------|-----------|----|--------|
| 0010 | 04820 | TRENCHING AND BACKFILLING | 70.00 | LF | | \$ | |
| 0020 | 04845 | CABLE-NO. 14/7C | 2,850.00 | LF | | \$ | |
| 0030 | 04884 | ANCHOR | 1.00 | EACH | | \$ | |
| 0040 | 04886 | MESSENGER-15400 LB | 600.00 | LF | | \$ | |
| 0050 | 04932 | INSTALL STEEL STRAIN POLE | 4.00 | EACH | | \$ | |
| 0060 | 04953 | TEMP RELOCATION OF SIGNAL HEAD | 6.00 | EACH | | \$ | |
| 0070 | 20093NS835 | INSTALL PEDESTRIAN HEAD-LED | 4.00 | EACH | | \$ | |
| 0800 | 20188NS835 | INSTALL LED SIGNAL-3 SECTION | 8.00 | EACH | | \$ | |
| 0090 | 20266ES835 | INSTALL LED SIGNAL- 4 SECTION | 1.00 | EACH | | \$ | |
| 0100 | 21743NN | INSTALL PEDESTRIAN DETECTOR | 4.00 | EACH | | \$ | |
| 0110 | 23068NN | REMOVE & REINSTALL COORDINATING UNIT | 1.00 | EACH | | \$ | |
| 0120 | 23157EN | TRAFFIC SIGNAL POLE BASE | 18.00 | CUYD | | \$ | |
| 0130 | 23222EC | INSTALL SIGNAL PEDESTAL | 2.00 | EACH | | \$ | |
| 0140 | 23235EC | INSTALL PEDESTAL POST | 2.00 | EACH | | \$ | |
| 0150 | 24528ED | TETHER WIRE SIGNALS(LUMP SUM) | 600.00 | LF | | \$ | |
| 0160 | 24900EC | PVC CONDUIT-1 1/4 IN-SCHEDULE 80 | 70.00 | LF | | \$ | |
| 0170 | 24908EC | INSTALL SIGNAL CONTROLLER-TY ATC | 1.00 | EACH | | \$ | |
| 0180 | 24955ED | REMOVE SIGNAL EQUIPMENT | 1.00 | EACH | | \$ | |
| 0190 | 26119EC | INSTALL RADAR PRESENCE DETECTOR TYPE A | 3.00 | EACH | | \$ | |

Section: 0002 - PAVING

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|-----|---|-----------|------|-----------|----|--------|
| 0200 | 00001 | | DGA BASE | 18,476.00 | TON | | \$ | |
| 0210 | 00008 | | CEMENT STABILIZED ROADBED | 46,659.00 | SQYD | | \$ | |
| 0220 | 00018 | | DRAINAGE BLANKET-TYPE II-ASPH | 14,145.00 | TON | | \$ | |
| 0230 | 00100 | | ASPHALT SEAL AGGREGATE | 201.00 | TON | | \$ | |
| 0240 | 00103 | | ASPHALT SEAL COAT | 24.00 | TON | | \$ | |
| 0250 | 00190 | | LEVELING & WEDGING PG64-22 | 416.00 | TON | | \$ | |
| 0260 | 00194 | | LEVELING & WEDGING PG76-22 | 2,727.00 | TON | | \$ | |
| 0270 | 00214 | | CL3 ASPH BASE 1.00D PG64-22 | 8,709.00 | TON | | \$ | |
| 0280 | 00217 | | CL4 ASPH BASE 1.00D PG64-22 | 15,068.00 | TON | | \$ | |
| 0290 | 00219 | | CL4 ASPH BASE 1.00D PG76-22 | 9,480.00 | TON | | \$ | |
| 0300 | 00339 | | CL3 ASPH SURF 0.38D PG64-22 | 2,537.00 | TON | | \$ | |
| 0310 | 00342 | | CL4 ASPH SURF 0.38A PG76-22 | 11,512.00 | TON | | \$ | |
| 0320 | 00358 | | ASPHALT CURING SEAL | 48.00 | TON | | \$ | |
| 0330 | 02542 | | CEMENT | 938.00 | TON | | \$ | |
| 0340 | 02676 | | MOBILIZATION FOR MILL & TEXT | 1.00 | LS | | \$ | |
| 0350 | 02677 | | ASPHALT PAVE MILLING & TEXTURING | 10,390.00 | TON | | \$ | |
| 0360 | 02702 | | SAND FOR BLOTTER | 117.00 | TON | | \$ | |
| 0370 | 02720 | | SIDEWALK-4 IN CONCRETE | 1,110.00 | SQYD | | \$ | |

PROPOSAL BID ITEMS

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| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|-----|--|------------|------|-----------|----|--------|
| 0380 | 20071EC | | JOINT ADHESIVE | 106,876.00 | LF | | \$ | |
| 0390 | 21289ED | | LONGITUDINAL EDGE KEY | 24,912.00 | LF | | \$ | |
| 0400 | 24970EC | | ASPHALT MATERIAL FOR TACK NON- TRACKING | 188.00 | TON | | \$ | |

Section: 0003 - ROADWAY

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|-----|---|-----------|------|-----------|----|--------|
| 0410 | 00078 | | CRUSHED AGGREGATE SIZE NO 2 | 13,307.00 | TON | | \$ | |
| 0420 | 01001 | | PERFORATED PIPE-6 IN | 11,290.00 | LF | | \$ | |
| 0430 | 01011 | | NON-PERFORATED PIPE-6 IN | 424.00 | LF | | \$ | |
| 0440 | 01033 | | PERF PIPE HEADWALL TY 4-6 IN | 1.00 | EACH | | \$ | |
| 0450 | 01690 | | FLUME INLET TYPE 1 | 3.00 | EACH | | \$ | |
| 0460 | 01691 | | FLUME INLET TYPE 2 | 17.00 | EACH | | \$ | |
| 0470 | 01877 | | SPECIAL HEADER CURB | 3,276.00 | LF | | \$ | |
| 0480 | 01885 | | LIP HEADER CURB | 165.00 | LF | | \$ | |
| 0490 | 01890 | | ISLAND HEADER CURB TYPE 1 | 547.00 | LF | | \$ | |
| 0500 | 01903 | | REMOVE CONCRETE ROLL CURB | 66.00 | LF | | \$ | |
| 0510 | 01978 | | CONC MEDIAN BARRIER TYPE A TL5 56 IN | 10,231.00 | LF | | \$ | |
| | | | CONC MEDIAN BARRIER TYPE A TL5 56 IN | | | | | |
| 0520 | 01978 | | MODIFIED | 210.00 | LF | | \$ | |
| 0500 | 04092 | | DELINEATOR FOR GUARDRAIL MONO | 405.00 | FACU | | ÷ | |
| 0530 | 01982 | | | 405.00 | EACH | | \$ | |
| 0540 | 01983 | | DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL YELLOW | 10.00 | EACH | | \$ | |
| 0550 | 01985 | | DELINEATOR FOR BARRIER - YELLOW | | EACH | | ÷ | |
| | | | DELINEATOR FOR GUARDRAIL BI | | | | • | |
| 0560 | 01987 | | DIRECTIONAL WHITE | 4.00 | EACH | | \$ | |
| 0570 | 02003 | | RELOCATE TEMP CONC BARRIER | 60,280.00 | LF | | \$ | |
| 0580 | 02014 | | BARRICADE-TYPE III | 4.00 | EACH | | \$ | |
| 0590 | 02070 | | JPC PAVEMENT-12 IN | 166.00 | SQYD | | \$ | |
| 0600 | 02076 | | JPC PAVEMENT-7 IN | 121.00 | SQYD | | \$ | |
| 0610 | 02091 | | REMOVE PAVEMENT | 8,556.00 | SQYD | | \$ | |
| 0620 | 02159 | | TEMP DITCH | 6,944.00 | LF | | \$ | |
| 0630 | 02160 | | CLEAN TEMP DITCH | 3,472.00 | LF | | \$ | |
| 0640 | 02200 | | ROADWAY EXCAVATION | 40,364.00 | CUYD | | \$ | |
| 0650 | 02223 | | GRANULAR EMBANKMENT | 3,213.00 | CUYD | | \$ | |
| 0660 | 02242 | | WATER | 2,400.00 | MGAL | | \$ | |
| 0670 | 02261 | | FENCE-WOVEN WIRE | 286.00 | LF | | \$ | |
| 0680 | 02289 | | DOUBLE VEHICULAR WOVEN WIRE GATE | 1.00 | EACH | | \$ | |
| 0690 | 02351 | | GUARDRAIL-STEEL W BEAM-S FACE | 28,412.50 | LF | | \$ | |
| 0700 | 02367 | | GUARDRAIL END TREATMENT TYPE 1 | 7.00 | EACH | | \$ | |
| 0710 | 02369 | | GUARDRAIL END TREATMENT TYPE 2A | 9.00 | EACH | | \$ | |
| 0720 | 02371 | | GUARDRAIL END TREATMENT TYPE 7 | 1.00 | EACH | | \$ | |
| 0730 | 02381 | | REMOVE GUARDRAIL | 31,898.00 | LF | | \$ | |
| 0740 | 02395 | | REMOVE GUARDRAIL TERMINAL SECT | 2.00 | EACH | | \$ | |
| 0750 | 02396 | | REMOVE GUARDRAIL END TREATMENT | 9.00 | EACH | | \$ | |
| 0760 | 02483 | | CHANNEL LINING CLASS II | 644.00 | TON | | \$ | |
| 0770 | 02555 | | CONCRETE-CLASS B | 11.40 | CUYD | | \$ | |
| 0780 | 02562 | | TEMPORARY SIGNS | 1,316.00 | SQFT | | \$ | |

PROPOSAL BID ITEMS

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Report Date 7/2/25

| | | Report Date 7/2/25 | | | | | |
|-----|----------|--|------------|------|-----------|---------|--------|
| INE | BID CODE | ALT DESCRIPTION | QUANTITY | - | UNIT PRIC | | AMOUNT |
| | 02565 | OBJECT MARKER TYPE 2 | | EACH | | \$ | |
| | 02570 | PROJECT CPM SCHEDULE | 1.00 | - | | \$ | |
| | 02602 | FABRIC-GEOTEXTILE CLASS 1 | 23,949.00 | | | \$ | |
| 320 | 02612 | HANDRAIL-TYPE A-2 | 80.00 | LF | | \$ | |
| 830 | 02650 | MAINTAIN & CONTROL TRAFFIC | 1.00 | LS | | \$ | |
| 840 | 02671 | PORTABLE CHANGEABLE MESSAGE SIGN | 10.00 | EACH | | \$ | |
| 850 | 02697 | EDGELINE RUMBLE STRIPS | 42,724.00 | LF | | \$ | |
| 860 | 02701 | TEMP SILT FENCE | 6,944.00 | LF | | \$ | |
| 870 | 02703 | SILT TRAP TYPE A | 48.00 | EACH | | \$ | |
| 880 | 02704 | SILT TRAP TYPE B | 48.00 | EACH | | \$ | |
| 890 | 02705 | SILT TRAP TYPE C | 48.00 | EACH | | \$ | |
| 900 | 02706 | CLEAN SILT TRAP TYPE A | 48.00 | EACH | | \$ | |
| 910 | 02707 | CLEAN SILT TRAP TYPE B | 48.00 | EACH | | \$ | |
| 920 | 02708 | CLEAN SILT TRAP TYPE C | 48.00 | EACH | | \$ | |
| 930 | 02726 | STAKING | 1.00 | LS | | \$ | |
| 940 | 02731 | REMOVE STRUCTURE STA 536+50 NB BRIDGE OVER BEARGRASS CREEK | 1.00 | LS | | \$ | |
| | 02731 | REMOVE STRUCTURE STA 536+50 SB BRIDGE OVER BEARGRASS CREEK | 1.00 | LS | | \$ | |
| | 02731 | REMOVE STRUCTURE STA 547+57 NB BRIDGEOVER ABANDONED R/R | 1.00 | LS | | \$ | |
| 970 | 02731 | REMOVE STRUCTURE STA 547+57 SB BRIDGE OVER ABANDONED R/R | 1.00 | LS | | \$ | |
| | 02898 | RELOCATE CRASH CUSHION | | EACH | | \$ | |
| | 02998 | MASONRY COATING | 11,547.00 | | | φ \$ | |
| 000 | 05950 | EROSION CONTROL BLANKET | 10,642.00 | | | Ψ \$ | |
| 010 | 05952 | | 154,357.00 | | | φ \$ | |
| | 05953 | TEMP MOLECT | 115,265.00 | | | | |
| | | | - | | | \$ ¢ | |
| | 05963 | | 4.90 | | | \$ | |
| | 05964 | | 2.90 | | | \$ ¢ | |
| | 05985 | | 95,011.00 | | | \$ | |
| | 05992 | | 58.90 | | | \$ ¢ | |
| | 06404 | FLEXIBLE DELINEATOR POST-M/Y | | EACH | | \$ | |
| | 06510 | PAVE STRIPING-TEMP PAINT-4 IN | 1,178.00 | | | \$ | |
| | 06511 | PAVE STRIPING-TEMP PAINT-6 IN | 250,000.00 | | | \$ | |
| | 06530 | PAVE STRIPING REMOVAL-4 IN | 1,178.00 | | | \$ | |
| | 06531 | PAVE STRIPING REMOVAL-6 IN | 27,974.00 | | | \$ | |
| | 06542 | PAVE STRIPING-THERMO-6 IN W | 43,368.00 | LF | | \$ | |
| 130 | 06543 | PAVE STRIPING-THERMO-6 IN Y | 31,024.00 | LF | | \$ | |
| 140 | 06546 | PAVE STRIPING-THERMO-12 IN W | 4,018.00 | LF | | \$ | |
| 150 | 06547 | PAVE STRIPING-THERMO-12 IN Y | 399.00 | LF | | \$ | |
| 160 | 06568 | PAVE MARKING-THERMO STOP BAR-24IN | 162.00 | LF | | \$ | |
| 170 | 06569 | PAVE MARKING-THERMO CROSS-HATCH | 2,619.00 | SQFT | | \$ | |
| 180 | 06573 | PAVE MARKING-THERMO STR ARROW | 4.00 | EACH | | \$ | |
| | 06574 | PAVE MARKING-THERMO CURV ARROW | | EACH | | \$ | |
| | 06585 | PAVEMENT MARKER TY IVA-MW TEMP | | EACH | | \$ | |
| | 06586 | PAVEMENT MARKER TY IVA-MY TEMP | | EACH | | \$ | |
| | 06600 | REMOVE PAVEMENT MARKER TYPE V | 1,135.00 | | | ÷ \$ | |

PROPOSAL BID ITEMS

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| 1230 1240 1250 1260 1270 1280 | BID CODE 06610 06611 06613 06614 08003 08100 | ALT | DESCRIPTION INLAID PAVEMENT MARKER-MW INLAID PAVEMENT MARKER-MY | QUANTITY 636.00 292.00 | EACH | UNIT PRIC | FP \$ | AMOUNT |
|--|--|-----|---|------------------------------|------|-----------|----------|--------------|
| 1240 1250 1260 1270 1280 | 06611 06613 06614 08003 | | INLAID PAVEMENT MARKER-MY | | | | \$ | |
| 1250 1260 1270 1280 | 06613 06614 08003 | | | 292.00 | _ | | | |
| 1260 1270 1280 | 06614 08003 | | | | EACH | | \$ | |
| 1270 1280 | 08003 | | INLAID PAVEMENT MARKER-B W/R | 78.00 | EACH | | \$ | |
| 1280 | | | INLAID PAVEMENT MARKER-B Y/R | 48.00 | EACH | | \$ | |
| | 08100 | | FOUNDATION PREPARATION | 1.00 | LS | | \$ | |
| 1290 | | | CONCRETE-CLASS A | 4.00 | CUYD | | \$ | |
| 1230 | 10020NS | | FUEL ADJUSTMENT | 102,385.00 | DOLL | \$1.00 | \$ | \$102,385.00 |
| 1300 | 10030NS | | ASPHALT ADJUSTMENT | 240,409.00 | DOLL | \$1.00 | \$ | \$240,409.00 |
| 1310 | 15094 | | S MANHOLE ADJUST TO GRADE | 1.00 | EACH | | \$ | |
| 1320 | 20190ES601 | | CONC BARR WALL TY 9T-INSTALL | 25,200.00 | LF | | \$ | |
| 1330 | 20191ED | | OBJECT MARKER TY 3 | 4.00 | EACH | | \$ | |
| 1340 | 20257NC | | SITE PREPARATION | 1.00 | LS | | \$ | |
| 1350 | 20259ED | | TEMPORARY MEDIAN CROSSOVER | 4.00 | EACH | | \$ | |
| 1360 | 20411ED | | LAW ENFORCEMENT OFFICER | 400.00 | HOUR | | \$ | |
| 1370 | 20432ES112 | | REMOVE CRASH CUSHION | 11.00 | EACH | | \$ | |
| 1380 | 20521NS719 | | REMOVE BRIDGE END CONNECTOR | 35.00 | EACH | | \$ | |
| 1390 | 20550ND | | SAWCUT PAVEMENT | 26,057.00 | LF | | \$ | |
| 1400 | 21590EN | | SOUND BARRIER WALL | 72,846.00 | SQFT | | \$ | |
| 1410 | 22045NN | | FLUME INLET TY 2-MOD | 1.00 | EACH | | \$ | |
| 1420 | 22520EN | | PAVE MARKING-THERMO YIELD BAR-36 IN | 144.00 | LF | | \$ | |
| 1430 | 22880ED | | BARRIER WALL TRANSITION | 73.00 | LF | | \$ | |
| 1440 | 23148EN | | END ANCHORS | 1.00 | EACH | | \$ | |
| 1450 | 23158ES505 | | DETECTABLE WARNINGS | 122.00 | SQFT | | \$ | |
| 1460 | 23253ES717 | | PAVE MARK TY 1 TAPE CROSS-HATCH | 172.00 | SQFT | | \$ | |
| 1470 | 23496EC | | MEDIAN CROSSOVER REMOVAL | 4.00 | EACH | | \$ | |
| 1480 | 23607EC | | PAVE MARK THERMO-LANE REDUCTION ARROW | 3.00 | EACH | | \$ | |
| 1490 | 23875NC | | REMOVE THERMOPLASTIC ARROWS | 5.00 | EACH | | \$ | |
| | 23979EC | | CRASH CUSHION TY VI CLASS C TL3 | 3.00 | EACH | | \$ | |
| 1510 | 24255EC | | REMOVE CABLE GUARDRAIL BARRIER SYSTEM | 10,217.00 | LF | | \$ | |
| | 24679ED | | PAVE MARK THERMO CHEVRON | - | SQFT | | ÷ \$ | |
| | 24689EC | | PAVE MARK THERMO-WRONG WAY ARROW | | EACH | | ÷ \$ | |
| | 24843EC | | VIBRATING WIRE PIEZOMETER | | EACH | | \$ | |
| | 24880EC | | REMOVE PAVEMENT MARKER | | EACH | | ¢ \$ | |
| | | | PAVE MARKING-THERMO ELONG ROUTE | | | | • | |
| 1560 | 24899EC | | SHIELD | 10.00 | EACH | | \$ | |
| 1570 | 25078ED | | THRIE BEAM GUARDRAIL TRANSITION TL-3 | 18.00 | EACH | | \$ | |
| 1580 | 26146ES717 | | PAVE MARK TY 1 TAPE LANE REDUCTION ARROW | 1.00 | EACH | | \$ | |
| 1590 | 26166ES717 | | PAVE MARK TY 1 TAPE CHEVRON | 132.00 | SQFT | | \$ | |
| 1600 | 26236EC | | THRIE BEAM BULLNOSE TERMINAL | 1.00 | EACH | | \$ | |
| 1610 | 26237EC | | CONNECTED ARROW PANEL | | MONT | | \$ | |
| 1620 | 26240EC | | PAVE STRIPE-WET REF CONT TAPE-6 IN W | 2,278.00 | | | \$ | |
| | 26241EC | | PAVE STRIPE-WET REF CONT TAPE-6 IN Y | 1,650.00 | | | \$ | |
| | 26242EC | | PAVE STRIPE-WET REF CONT TAPE-12 IN W | 607.00 | | | \$ | |
| | 26248EC | | ELECTRONIC DELIVERY MGMT SYSTEM - AGG | 1.00 | | | \$ | |

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Jection. VVV4 - DRAINAGE

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|-----|--|----------|------|-----------|----|-------------|
| 1660 | 00521 | | STORM SEWER PIPE-15 IN | 1,475.00 | LF | | \$ | |
| 1670 | 00522 | | STORM SEWER PIPE-18 IN | 2,146.00 | LF | | \$ | |
| 1680 | 00524 | | STORM SEWER PIPE-24 IN | 53.00 | LF | | \$ | |
| 1690 | 01204 | | PIPE CULVERT HEADWALL-18 IN | 1.00 | EACH | | \$ | |
| 1700 | 01208 | | PIPE CULVERT HEADWALL-24 IN | 1.00 | EACH | | \$ | |
| 1710 | 01310 | | REMOVE PIPE | 219.00 | LF | | \$ | |
| 1720 | 01443 | | SLOPED AND PARALLEL HEADWALL-15 IN | 1.00 | EACH | | \$ | |
| 1730 | 01480 | | CURB BOX INLET TYPE B | 1.00 | EACH | | \$ | |
| 1740 | 01605 | | CONC MED BARR BOX INLET TY B1 TL5 56 | 3.00 | EACH | | \$ | |
| 1750 | 01623 | | CONC MED BARR BOX INLET TY B1 TL5 56 | 9.00 | EACH | | \$ | |
| 1760 | 01624 | | CONC MED BARR BOX INLET TY B2 TL5 56 | 32.00 | EACH | | \$ | |
| 1770 | 01626 | | CONC MED BARR BOX INLET TY A2 TL5 56 | 4.00 | EACH | | \$ | |
| 1780 | 01626 | | CONC MED BARR BOX INLET TY A2 TL5 56 (MODIFIED) | 1.00 | EACH | | \$ | |
| 1790 | 01718 | | REMOVE INLET | 31.00 | EACH | | \$ | |
| 1800 | 02607 | | FABRIC-GEOTEXTILE CLASS 2 FOR PIPE | 5,096.00 | SQYD | \$2.00 | \$ | \$10,192.00 |
| 1810 | 02625 | | REMOVE HEADWALL | 6.00 | EACH | | \$ | |
| 1820 | 02690 | | SAFELOADING | 35.00 | CUYD | | \$ | |
| 1830 | 08100 | | CONCRETE-CLASS A | 25.00 | CUYD | | \$ | |
| 1840 | 21799EN | | BORE AND JACK PIPE-24 IN | 56.00 | LF | | \$ | |
| 1850 | 23126EN | | BORE AND JACK PIPE-18 IN | 71.00 | LF | | \$ | |
| 1860 | 24814EC | | PIPELINE INSPECTION | 1,957.00 | LF | | \$ | |

Section: 0005 - BRIDGE- CULVERT- I-71 OVER ABANDONED RR

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|-----|------------------------|------------|------|-----------|----|--------|
| 1870 | 02223 | | GRANULAR EMBANKMENT | 469.00 | CUYD | | \$ | |
| 1880 | 08003 | | FOUNDATION PREPARATION | 1.00 | LS | | \$ | |
| 1890 | 08100 | | CONCRETE-CLASS A | 1,181.30 | CUYD | | \$ | |
| 1900 | 08150 | | STEEL REINFORCEMENT | 210,141.00 | LB | | \$ | |

Section: 0006 - BRIDGE - OVER EDITH ROAD

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|-----|----------------------------------|-----------|------|-----------|----|--------|
| 1910 | 01643 | | JUNCTION BOX-24 IN | 4.00 | EACH | | \$ | |
| 1920 | 02231 | | STRUCTURE GRANULAR BACKFILL | 158.20 | CUYD | | \$ | |
| 1930 | 03299 | | ARMORED EDGE FOR CONCRETE | 58.50 | LF | | \$ | |
| 1940 | 04797 | | CONDUIT-3 IN | 287.00 | LF | | \$ | |
| 1950 | 08003 | | FOUNDATION PREPARATION | 1.00 | LS | | \$ | |
| 1960 | 08014 | | REINF CONC SLOPE WALL-4 IN | 210.00 | SQYD | | \$ | |
| 1970 | 08033 | | TEST PILES | 290.00 | LF | | \$ | |
| 1980 | 08052 | | PILES-STEEL HP14X117 | 1,764.00 | LF | | \$ | |
| 1990 | 08095 | | PILE POINTS-14 IN | 32.00 | EACH | | \$ | |
| 2000 | 08100 | | CONCRETE-CLASS A | 142.40 | CUYD | | \$ | |
| 2010 | 08104 | | CONCRETE-CLASS AA | 221.90 | CUYD | | \$ | |
| 2020 | 08150 | | STEEL REINFORCEMENT | 18,938.00 | LB | | \$ | |
| 2030 | 08151 | | STEEL REINFORCEMENT-EPOXY COATED | 64,335.00 | LB | | \$ | |

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| LINE | BID CODE | ALT DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|------------|---|----------|------|-----------|----|--------|
| 2040 | 08301 | REMOVE SUPERSTRUCTURE | 1.00 | LS | | \$ | |
| 2050 | 08669 | PRECAST PC BOX BEAM SB21 | 550.30 | LF | | \$ | |
| 2060 | 20391NS835 | ELECTRICAL JUNCTION BOX TYPE A | 4.00 | EACH | | \$ | |
| 2070 | 23378EC | CONCRETE SEALING | 7,580.00 | SQFT | | \$ | |
| 2080 | 23744EC | EPOXY INJECTION CRACK REPAIR | 4.00 | LF | | \$ | |
| 2090 | 26233EC | MOBILIZATION FOR CONCRETE SURF TREATMENT | 1.00 | LS | | \$ | |

Section: 0007 - BRIDGE- OVER BEARGRASS CREEK

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|------------|-----|---|------------|------|-----------|----|--------|
| 2100 | 01643 | | JUNCTION BOX-24 IN | 6.00 | EACH | | \$ | |
| 2110 | 02231 | | STRUCTURE GRANULAR BACKFILL | 848.00 | CUYD | | \$ | |
| 2120 | 02403 | | REMOVE CONCRETE MASONRY | 278.00 | CUYD | | \$ | |
| 2130 | 03299 | | ARMORED EDGE FOR CONCRETE | 233.40 | LF | | \$ | |
| 2140 | 08003 | | FOUNDATION PREPARATION | 1.00 | LS | | \$ | |
| 2150 | 08019 | | CYCLOPEAN STONE RIP RAP | 504.00 | TON | | \$ | |
| 2160 | 08033 | | TEST PILES | 659.00 | LF | | \$ | |
| 2170 | 08051 | | PILES-STEEL HP14X89 | 3,822.00 | LF | | \$ | |
| 2180 | 08095 | | PILE POINTS-14 IN | 44.00 | EACH | | \$ | |
| 2190 | 08100 | | CONCRETE-CLASS A | 735.90 | CUYD | | \$ | |
| 2200 | 08104 | | CONCRETE-CLASS AA | 1,215.10 | CUYD | | \$ | |
| 2210 | 08130 | | MECHANICAL REINF COUPLER #5 | 40.00 | EACH | | \$ | |
| 2220 | 08135 | | MECHANICAL REINF COUPLER #10 | 32.00 | EACH | | \$ | |
| 2230 | 08150 | | STEEL REINFORCEMENT | 90,647.00 | LB | | \$ | |
| 2240 | 08151 | | STEEL REINFORCEMENT-EPOXY COATED | 317,796.00 | LB | | \$ | |
| 2250 | 08301 | | REMOVE SUPERSTRUCTURE | 1.00 | LS | | \$ | |
| 2260 | 08634 | | PRECAST PC I BEAM TYPE 4 | 2,878.00 | LF | | \$ | |
| 2270 | 20391NS835 | | ELECTRICAL JUNCTION BOX TYPE A BRIDGE OVER BEARGRASS CREEK (LUMP SUM) | 4.00 | EACH | | \$ | |
| 2280 | 23378EC | | CONCRETE SEALING | 73,769.00 | SQFT | | \$ | |
| 2290 | 23813EC | | DECK DRAIN | 40.00 | EACH | | \$ | |
| 2300 | 24902EC | | PVC CONDUIT-3 IN-SCHEDULE 80 | 492.00 | LF | | \$ | |
| 2310 | 25028ED | | RAIL SYSTEM SINGLE SLOPE - 40 IN | 492.00 | LF | | \$ | |
| 2320 | 26141EC | | GALVANIC ANODE | 552.00 | EACH | | \$ | |

Section: 0008 - BRIDGE - OVER ZORN AVENUE

| LINE | BID CODE | ALT DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|------------------------------|----------|------|-----------|----|--------|
| 2330 | 01643 | JUNCTION BOX-24 IN | 6.00 | EACH | | \$ | |
| 2340 | 02231 | STRUCTURE GRANULAR BACKFILL | 229.60 | CUYD | | \$ | |
| 2350 | 03299 | ARMORED EDGE FOR CONCRETE | 69.10 | LF | | \$ | |
| 2360 | 04797 | CONDUIT-3 IN | 549.00 | LF | | \$ | |
| 2370 | 08003 | FOUNDATION PREPARATION | 1.00 | LS | | \$ | |
| 2380 | 08020 | CRUSHED AGGREGATE SLOPE PROT | 271.00 | TON | | \$ | |
| 2390 | 08033 | TEST PILES | 439.00 | LF | | \$ | |
| 2400 | 08052 | PILES-STEEL HP14X117 | 2,684.00 | LF | | \$ | |

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| LINE | BID CODE | ALT DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|------------|---|------------|------|-----------|----|--------|
| 2410 | 08095 | PILE POINTS-14 IN | 32.00 | EACH | | \$ | |
| 2420 | 08100 | CONCRETE-CLASS A | 187.30 | CUYD | | \$ | |
| 2430 | 08104 | CONCRETE-CLASS AA | 449.20 | CUYD | | \$ | |
| 2440 | 08141 | MECHANICAL REINF COUPLER #6 EPOXY COATED | 1,662.00 | EACH | | \$ | |
| 2450 | 08150 | STEEL REINFORCEMENT | 27,812.00 | LB | | \$ | |
| 2460 | 08151 | STEEL REINFORCEMENT-EPOXY COATED | 160,270.00 | LB | | \$ | |
| 2470 | 08301 | REMOVE SUPERSTRUCTURE | 1.00 | LS | | \$ | |
| 2480 | 20391NS835 | ELECTRICAL JUNCTION BOX TYPE A | 4.00 | EACH | | \$ | |
| 2490 | 23378EC | CONCRETE SEALING | 14,477.00 | SQFT | | \$ | |
| 2500 | 23744EC | EPOXY INJECTION CRACK REPAIR | 30.00 | LF | | \$ | |
| 2510 | 23981EC | PPC I-BEAM TYPE HN 42-49 | 1,085.30 | LF | | \$ | |
| 2520 | 26233EC | MOBILIZATION FOR CONCRETE SURF TREATMENT | 1.00 | LS | | \$ | |

Section: 0009 - BRIDGE - OVER MOCKINGBIRD VALLEY ROAD

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|------------|-----|---|-----------|------|-----------|----|--------|
| 2530 | 01643 | | JUNCTION BOX-24 IN | 4.00 | EACH | | \$ | |
| 2540 | 02231 | | STRUCTURE GRANULAR BACKFILL | 196.00 | CUYD | | \$ | |
| 2550 | 03299 | | ARMORED EDGE FOR CONCRETE | 58.90 | LF | | \$ | |
| 2560 | 08003 | | FOUNDATION PREPARATION | 1.00 | LS | | \$ | |
| 2570 | 08020 | | CRUSHED AGGREGATE SLOPE PROT | 199.00 | TON | | \$ | |
| 2580 | 08033 | | TEST PILES | 424.00 | LF | | \$ | |
| 2590 | 08052 | | PILES-STEEL HP14X117 | 2,656.00 | LF | | \$ | |
| 2600 | 08095 | | PILE POINTS-14 IN | 32.00 | EACH | | \$ | |
| 2610 | 08100 | | CONCRETE-CLASS A | 158.80 | CUYD | | \$ | |
| 2620 | 08104 | | CONCRETE-CLASS AA | 224.90 | CUYD | | \$ | |
| 2630 | 08150 | | STEEL REINFORCEMENT | 22,168.00 | LB | | \$ | |
| 2640 | 08151 | | STEEL REINFORCEMENT-EPOXY COATED | 47,686.00 | LB | | \$ | |
| 2650 | 08301 | | REMOVE SUPERSTRUCTURE | 1.00 | LS | | \$ | |
| 2660 | 08669 | | PRECAST PC BOX BEAM SB21 | 632.70 | LF | | \$ | |
| 2670 | 20391NS835 | | ELECTRICAL JUNCTION BOX TYPE A | 4.00 | EACH | | \$ | |
| 2680 | 22146EN | | CONCRETE PATCHING REPAIR | 203.00 | SQFT | | \$ | |
| 2690 | 23378EC | | CONCRETE SEALING | 8,731.00 | SQFT | | \$ | |
| 2700 | 23744EC | | EPOXY INJECTION CRACK REPAIR | 16.00 | LF | | \$ | |
| 2710 | 24902EC | | PVC CONDUIT-3 IN-SCHEDULE 80 | 318.00 | LF | | \$ | |
| 2720 | 26233EC | | MOBILIZATION FOR CONCRETE SURF TREATMENT | 1.00 | LS | | \$ | |

Section: 0010 - SIGNING

| LINE | BID CODE | ALT DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|------------------------------|----------|------|-----------|----|--------|
| 2730 | 04903 | REFERENCE MARKER | 24.00 | EACH | | \$ | |
| 2740 | 04904 | BARRIER MOUNTING BRACKET | 12.00 | EACH | | \$ | |
| 2750 | 06400 | GMSS GALV STEEL TYPE A | 3,191.00 | LB | | \$ | |
| 2760 | 06405 | SBM ALUMINUM PANEL SIGNS | 3,038.00 | SQFT | • | \$ | |
| 2770 | 06406 | SBM ALUM SHEET SIGNS .080 IN | 301.80 | SQFT | | \$ | |

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| LINE | BID CODE | ALT DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|--------------------------------------|-----------|------|-----------|----|--------|
| 2780 | 06407 | SBM ALUM SHEET SIGNS .125 IN | 1,005.90 | SQFT | | \$ | |
| 2790 | 06410 | STEEL POST TYPE 1 | 1,654.00 | LF | | \$ | |
| 2800 | 06412 | STEEL POST MILE MARKERS | 4.00 | EACH | | \$ | |
| 2810 | 06415 | OSS GALV STEEL CANTILEVER | 4.00 | EACH | | \$ | |
| 2820 | 06441 | GMSS GALV STEEL TYPE C | 598.00 | LB | | \$ | |
| 2830 | 06449 | REM OVERHEAD SIGN SUPPORT STR | 5.00 | EACH | | \$ | |
| 2840 | 06450 | REM OVERHEAD STRUC CONC BASE | 5.00 | EACH | | \$ | |
| 2850 | 06451 | REMOVE SIGN SUPPORT BEAM | 10.00 | EACH | | \$ | |
| 2860 | 06475 | OSS GALV STEEL 60 FT TRUSS | 2.00 | EACH | | \$ | |
| 2870 | 06490 | CLASS A CONCRETE FOR SIGNS | 186.30 | CUYD | | \$ | |
| 2880 | 06491 | STEEL REINFORCEMENT FOR SIGNS | 14,708.00 | LB | | \$ | |
| 2890 | 20418ED | REMOVE & RELOCATE SIGNS | 4.00 | EACH | | \$ | |
| 2900 | 20419ND | ROADWAY CROSS SECTION | 19.00 | EACH | | \$ | |
| 2910 | 20912ND | BARRIER WALL POST | 5.00 | EACH | | \$ | |
| 2920 | 21373ND | REMOVE SIGN | 14.00 | EACH | | \$ | |
| 2930 | 21596ND | GMSS TYPE D | 29.00 | EACH | | \$ | |
| 2940 | 24631EC | BARCODE SIGN INVENTORY | 148.00 | EACH | | \$ | |

Section: 0011 - LIGHTING - ZORN AVE INTERCHANGE

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|------------|-----|--|----------|------|-----------|----|--------|
| 2950 | 04710 | | POLE 80 FT MTG HT HIGH MAST | 4.00 | EACH | | \$ | |
| 2960 | 04780 | | FUSED CONNECTOR KIT | 18.00 | EACH | | \$ | |
| 2970 | 04800 | | MARKER | 10.00 | EACH | | \$ | |
| 2980 | 04820 | | TRENCHING AND BACKFILLING | 3,575.00 | LF | | \$ | |
| 2990 | 04840 | | CABLE-INTERCONNECT | 1.00 | LF | | \$ | |
| 3000 | 20391NS835 | | ELECTRICAL JUNCTION BOX TYPE A | 11.00 | EACH | | \$ | |
| 3010 | 20392NS835 | | ELECTRICAL JUNCTION BOX TYPE C | 2.00 | EACH | | \$ | |
| 3020 | 20410ED | | MAINTAIN LIGHTING | 1.00 | LS | | \$ | |
| 3030 | 21543EN | | BORE AND JACK CONDUIT | 1,240.00 | LF | | \$ | |
| 3040 | 23161EN | | POLE BASE-HIGH MAST | 20.00 | CUYD | | \$ | |
| 3050 | 23778EC | | WIRE-NO. 10 | 2,025.00 | LF | | \$ | |
| 3060 | 24749EC | | HIGH MAST LED LUMINAIRE | 16.00 | EACH | | \$ | |
| 3070 | 24851EC | | CABLE-NO. 10/3C DUCTED LIGHTING - ZORN INTERCHANGE ONLY | 5,415.00 | LF | | \$ | |
| 3080 | 24901EC | | PVC CONDUIT-2 IN-SCHEDULE 80 | 610.00 | LF | | \$ | |
| 3090 | 24902EC | | PVC CONDUIT-3 IN-SCHEDULE 80 | 1,050.00 | LF | | \$ | |

Section: 0012 - TRAFFIC LOOPS

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|-----|--------------------------------|----------|------|-----------|----|--------|
| 3100 | 04793 | | CONDUIT-1 1/4 IN | 80.00 | LF | | \$ | |
| 3110 | 04795 | | CONDUIT-2 IN | 20.00 | LF | | \$ | |
| 3120 | 04811 | | ELECTRICAL JUNCTION BOX TYPE B | 2.00 | EACH | | \$ | |
| 3130 | 04820 | | TRENCHING AND BACKFILLING | 90.00 | LF | | \$ | |
| 3140 | 04829 | | PIEZOELECTRIC SENSOR | 6.00 | EACH | | \$ | |
| 3150 | 04830 | | LOOP WIRE | 2,650.00 | LF | | \$ | |

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|------|------------|-----|--------------------------|----------|------|-----------|----|--------|
| 3160 | 04895 | | LOOP SAW SLOT AND FILL | 600.00 | LF | | \$ | |
| 3170 | 20359NN | | GALVANIZED STEEL CABINET | 2.00 | EACH | | \$ | |
| 3180 | 20360ES818 | | WOOD POST | 4.00 | EACH | | \$ | |

Section: 0013 - INTELLIGENT TRANSPORTATION SYSTEMS

| LINE | BID CODE | ALT DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|---|----------|------|-----------|----|--------|
| 3190 | 02187 | SITE PREPARATION | 1.00 | EACH | | \$ | |
| 3200 | 04740 | POLE BASE | 1.00 | EACH | | \$ | |
| 3210 | 04795 | CONDUIT-2 IN | 525.00 | LF | | \$ | |
| 3220 | 04811 | ELECTRICAL JUNCTION BOX TYPE B | 1.00 | EACH | | \$ | |
| 3230 | 04820 | TRENCHING AND BACKFILLING | 525.00 | LF | | \$ | |
| 3240 | 04835 | WIRE-NO. 4 | 1,050.00 | LF | | \$ | |
| 3250 | 08104 | CONCRETE-CLASS AA | 21.90 | CUYD | | \$ | |
| 3260 | 08150 | STEEL REINFORCEMENT | 219.00 | LB | | \$ | |
| 3270 | 21059ND | CCTV ASSEMBLY | 2.00 | EACH | | \$ | |
| 3280 | 21066ND | MODEL 336 ENCLOSURE | 2.00 | EACH | | \$ | |
| 3290 | 21069ND | SURGE DEVICE 120 VOLT | 2.00 | EACH | | \$ | |
| 3300 | 21071ND | DATA SURGE DEVICE | 2.00 | EACH | | \$ | |
| 3310 | 21072ND | VIDEO SURGE DEVICE | 2.00 | EACH | | \$ | |
| 3320 | 23842EC | POLE 50 FT-INSTALL | 1.00 | EACH | | \$ | |
| 3330 | 23945EC | INST VARIABLE MESSAGE SIGN-EXIST TRUSS | 1.00 | EACH | | \$ | |

Section: 0014 - DEMOBILIZATION &/OR MOBILIZATION

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|-----|----------------|----------|------|-----------|----|--------|
| 3340 | 02568 | | MOBILIZATION | 1.00 | LS | | \$ | |
| 3350 | 02569 | | DEMOBILIZATION | 1.00 | LS | | \$ | |