



CALL NO. 201

CONTRACT ID. 221350

GRAVES - HICKMAN - FULTON COUNTIES

FED/STATE PROJECT NUMBER NHPP 0011 (038)

DESCRIPTION JULIAN CARROLL PURCHASE PARKWAY (PW 9003)

WORK TYPE GRADE, DRAIN & SURFACE WITH BRIDGE

PRIMARY COMPLETION DATE 11/1/2024

LETTING DATE: October 20,2022

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME October 20,2022. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

PLANS AVAILABLE FOR THIS PROJECT.

DBE CERTIFICATION REQUIRED - 14.50%

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

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PART I
SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 01

CONTRACT ID - 221350

NHPP 0011 (038)

COUNTY - FULTON, GRAVES, HICKM

PCN - DE12190032237

NHPP 0011 (038)

PURCHASE PARKWAY (PW 9003) RECONSTRUCT PARKWAY FROM SOUTH OF US51 INTERCHANGE TO CARDINAL ROAD NEAR MAYFIELD, A DISTANCE OF 019.20 MILES.BRIDGE WITH GRADE & DRAIN SYP NO. 01-00026.00.

GEOGRAPHIC COORDINATES LATITUDE 36:37:16.00 LONGITUDE 88:46:45.00

ADT 10,600

COUNTY - GRAVES

PCN - DE04290032237

NHPP 0011 (038)

JULIAN CARROLL PURCHASE PARKWAY (PW 9003) RECONSTRUCT THE WINGO (KY 339) INTERCHANGE, A DISTANCE OF 0.99 MILES.ASPHALT PAVEMENT & ROADWAY REHAB SYP NO. 01-00026.01.

GEOGRAPHIC COORDINATES LATITUDE 36:38:45.00 LONGITUDE 88:45:12.00

ADT 10,600

COMPLETION DATE(S):

COMPLETED BY 11/01/2024

APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

Bidder must use the Department's 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 [KRS 14A.9-010](#) to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under [KRS 14A.9-030](#) unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in [KRS 14A.9-010](#), the foreign entity should identify the applicable exception. Foreign entity is defined within [KRS 14A.1-070](#).

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially

disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

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

April 30, 2018

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 Rating | 102.08 Preparation and Delivery of Proposals |
| 102.13 Irregular Bid Proposals | 102.14 Disqualification of Bidders |
| 102.09 Proposal Guaranty | |

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. Sub-Contractors fulfilling a disadvantaged business enterprise goal on a project may enter into a 2nd 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 will not be considered for award by the Cabinet and they will be returned to the bidder.

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

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

DBE PARTICIPATION PLAN

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

The DBE Participation Plan shall include the following:

1. Name and address of DBE Subcontractor(s) and/or supplier(s) intended to be used in the proposed project;
2. Description of the work each is to perform including the work item, unit, quantity, unit price and total amount of the work to be performed by the individual DBE. The 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.

UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED

Contractors must submit the signed subcontract between the contractor and the DBE contractor, along with the DBE's certificate of insurance. If the DBE is a supplier of materials for the project, a signed purchase order must be submitted to the Division of Construction Procurement.

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

CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS

If the DBE participation submitted in the bid by the apparent lowest responsive bidder does not meet or exceed the DBE contract goal, the apparent lowest responsive bidder must submit a Good Faith Effort Package to satisfy the Cabinet that sufficient good faith efforts were made to meet the contract goals prior to submission of the bid. Efforts to increase the goal after bid submission will not be considered in justifying the good faith effort, unless the contractor can show that the proposed DBE was solicited prior to the letting date. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted. One complete set (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 certainty 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 **signed and notarized** Affidavit of Subcontractor Payment (TC 18-7) and copies of checks for any monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal. These documents must be 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. Melvin Bynes. Mr. Bynes' current contact information is email address – melvin.bynes2@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.

NATIONAL HIGHWAY

Be advised this project is on the NATIONAL HIGHWAY SYSTEM.

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.

MATERIAL TRANSFER VEHICLE (MTV)

Provide and use a MTV in accordance with Sections 403.02.10 and 403.03.05.

Maintain and Control Traffic Notes:

Maintain and Control Traffic will be paid Lump Sum as follows:

Maintain and Control Traffic – Fulton 1-26.00 (Corridor and Exit 1 and 2)

Maintain and Control Traffic – Hickman 1-26.00 (Corridor)

Maintain and Control Traffic – Graves 1-26.00 (Corridor)

Maintain and Control Traffic – Graves 1-26.01 (Wingo Interchange)

Maintain and Control Traffic – I69 Corridor Bridges (Fulton, Hickman, Graves) See SHEET S1A

Maintain and Control Traffic – I69 Local Road Overpasses (Fulton, Hickman, Graves) See SHEET S1A

All other Pay items relative to the Maintenance of Traffic are shown on the Roadway and Bridge General Summaries for the Project. (1-26.00 and 1-26.01)

See Special Notes for Traffic Control for Bridge Repairs:

SPECIAL NOTE FOR TRAFFIC CONTROL ON BRIDGE REPAIR

I 69 Corridor Mainline Bridges

I. TRAFFIC CONTROL GENERAL

Except as provided herein, traffic shall be maintained in accordance with the 2012 Standard Specifications, Section 112. Except for the traffic control bid items listed on S1A, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic".

Contrary to Section 106.01, traffic control devices used on this project may be new or used in new condition, at the beginning of the work and maintained in like new condition until completion of the work.

II. TRAFFIC COORDINATOR

Furnish a Traffic Coordinator as per Section 112. The Traffic Coordinator shall inspect the project maintenance of traffic, at least three times daily, or as directed by the Engineer, during the Contractor's operations and at any time a lane closure is in place. The personnel shall have access on the project to a radio or telephone to be used in case of emergencies or accidents.

The Traffic Coordinator shall report all incidents throughout the work zone to the Engineer on the project. The Contractor shall furnish the name and telephone number where the Traffic Coordinator can be contacted at all times.

III. SIGNS

Contrary to Section 112.04.02, only long-term signs (sign intended to be continuously in place for more than 3 days) will be measured for payment; short term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic.

The contractor is to install warning signs for wide loads in advance of the bridge under the direction of the Engineer. The Department will not measure installation, maintenance, or removal for payment, and will consider these incidentals to Maintain and Control Traffic.

IV. TEMPORARY PAVEMENT STRIPING

Skip lines and/or solid lines through the length of the tapers for lane closures and other striping as directed by the Engineer shall be temporarily covered with 6" black removable tape. Permanent removal of all other pavement striping for traffic control shall be considered incidental to Maintain and Control Traffic. Temporary pavement striping shall be paid only once per course in accordance with Section 112.04.07. The Contractor shall replace any temporary striping that becomes damaged or fails to adhere to the pavement before dark on the day of the notification. Liquidated damages shall be assessed to the Contractor at a rate of \$500 per day for failing to replace temporary striping within this time limit.

V. PROJECT PHASING & CONSTRUCTION PROCEDURES

The Contractor shall maintain one lane of traffic on the Parkway at all times in accordance with Standard Drawing No. TTC-120. The clear lane width required is:

<u>Structure</u>	<u>Clear Lane Width</u>
038B00055R	13'
038B00055L	13'
042B00170R	13'
42B000170L	13'
042B00173R	13'
042B00173L	13'
042B00176R	13'
042B00176L	13'
042B00177R	13'
042B00177L	13'

VI. BARRIER WALL

Payment of the contract unit price per linear foot for "CONCRETE BARRIER WALL TYPE 9T" shall be full compensation for furnishing, installing, maintaining, adjusting alignment as needed, removing the barrier when no longer needed, and all incidental items necessary to complete the work.

Provide one side mounted barrier wall delineator per each section of barrier. See Standard Drawing RBM-020 for types. No direct payment allowed for delineators.

VII. CRASH CUSHION / END TREATMENTS

To the satisfaction of the Engineer extend Barrier wall out of the clear zone. If Barrier wall is not extended out of the clear zone to the satisfaction of the engineer provide crash cushions / end treatments for the barrier wall.

Provide Barrier end treatments that comply with NCHRP 350 LEVEL 3.

**SPECIAL NOTE FOR TRAFFIC
 CONTROL ON BRIDGE REPAIR CONTRACTS**

Local Road Bridge Overpasses

1. TRAFFIC CONTROL GENERAL

Except as provided herein, traffic shall be maintained in accordance with the Standard Specifications (current edition), Section 112. Except for the traffic control bid items listed on Sheet S1A, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic". Contrary to Section 106.01, traffic control devices used on this project may be new or used in new condition, at the beginning of the work and maintained in like new condition until completion of the work.

2. TRAFFIC COORDINATOR

Furnish a Traffic Coordinator as per Section 112. The Traffic Coordinator shall inspect the project maintenance of traffic, at least three times daily, or as directed by the Engineer, during the Contractor's operations and at any time a lane closure is in place. The personnel shall have access on the project to a radio or telephone to be used in case of emergencies or accidents. The Traffic Coordinator shall report all incidents throughout the work zone to the Engineer on the project. The Contractor shall furnish the name and telephone number where the Traffic Coordinator can be contacted at all times.

3. SIGNS

Contrary to Section 112.04.02, only long-term signs (sign intended to be continuously in place for more than 3 days) will be measured for payment; short term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic. The contractor is to install warning signs for wide loads in advance of the bridge under the direction of the Engineer. The Department will not measure installation, maintenance, or removal for payment, and will consider these incidentals to Maintain and Control Traffic.

4. TEMPORARY PAVEMENT STRIPING

Skip lines and/or solid lines through the length of the tapers for lane closures and other striping as directed by the Engineer shall be temporarily covered with 6" black removable tape. Permanent removal of all other pavement striping for traffic control shall be considered incidental to Maintain and Control Traffic. Temporary pavement striping shall be paid only once per course in accordance with Section 112.04.07. The Contractor shall replace any temporary striping that becomes damaged or fails to adhere to the pavement before dark on the day of the notification. **A penalty of \$500.00 per day will be assessed for failing to replace temporary striping within this time limit.**

5. PROJECT PHASING & CONSTRUCTION PROCEDURES

One lane of traffic shall be maintained on each bridge in accordance with Standard Drawing No. TTC-100 or TTC-110. The minimum clear lane width required is as follows:

<u>Structure</u>	<u>Clear Lane Width</u>
038B00012N	12'-0"
038B00015N	12'-0"
053B00068N	12'-0"
053B00050N	12'-0"
053B00056N	12'-0"
053B00102N	12'-0"
042B00171N	12'-0"
042B00172N	12'-0"

042B00180N	12'-0"
042B00175N	12'-0"
042B00096N	12'-0"
042B00128N	12'-0"

6. TEMPORARY SIGNAL

Provide, install, and maintain a temporary traffic signal as specified below. The Contractor must provide a 24-hour contact person and number available to maintain the temporary signals as needed.

<u>Structure</u>	<u>Signal</u>
038B00012N	2 Phase
038B00015N	2 Phase
053B00068N	2 Phase
053B00050N	2 Phase
053B00056N	2 Phase
053B00102N	2 Phase
042B00171N	2 Phase
042B00172N	2 Phase
042B00180N	2 Phase
042B00175N	2 Phase
042B00096N	2 Phase
042B00128N	2 Phase

7. ADDITIONAL LANE CLOSURES

Shoulder and single lane closures will be permitted for structures crossing I-69 for any necessary work below the structure. These shoulder and lane closures will be determined by the Engineer. All shoulder and lane closures shall be removed when not working. All cost shall be considered incidental to the lump sum bid for Maintain and Control Traffic.

8. MEASUREMENT.

Temporary Signs:

The Cabinet will measure this item by "Square Feet".

Maintain and Control Traffic:

The Cabinet will measure this item by "Lump Sum".

Lane Closure, and Temp Signal 2 Phase:

The Cabinet will measure this item by "Each".

Pave Striping-Temp Rem Tape-B, W, and Y:

The Department will measure the quantity in "Linear Feet".

9. PAYMENT.

Temporary Signs (02562)

Payment at the contract unit price for "Square Feet" is full compensation for all items to complete this work as specified.

Maintain and Control Traffic (02650):

Payment at the contract unit price for "Lump Sum" is full compensation for all items to complete this work as specified.

Lane Closure (02653) and Temp Signal 2 Phase (04933):

Payment at the contract unit price "Each" is full compensation for all items to complete this work as specified.

Pave Striping-Temp Rem Tape-B (06549), W (06550), and Y (06551):

Payment at the contract unit price "Lineal Feet" is full compensation for all items to complete this work as specified.

SPECIAL NOTE FOR BRIDGE BARRIER RETROFIT

I. DESCRIPTION.

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing aluminum handrail and deliver to the Baily Bridge Lot in Frankfort, KY; (3) Remove any existing spalled/delaminated concrete from portion of the barrier to remain in place; (4) Repair and replace damaged and corroded reinforcing bars; (5) Drill and epoxy grout reinforcement into the existing barrier; (6) Prepare surface for concrete placement by blast cleaning; (7) Pour new concrete barrier using Class "M" Concrete according to the Standard Specifications; (8) Apply concrete sealer to areas of new concrete as shown on the attached detail drawings; and (9) Any other work specified as part of this contract according to the attached detail drawings.

II. MATERIALS.

- A. **Class "M" Concrete.** Use either "M1" or "M2". See Section 601.
- B. **Steel Reinforcement.** Use Grade 60. See Section 602.
- C. **Concrete Sealing.** Contrary to Section 601.03.18 B apply an approved concrete sealer in place of masonry coating.

III. CONSTRUCTION.

- A. Concrete Removal and Preparation.** The Contractor, as directed by the Engineer, shall locate and remove all loose, spalled, deteriorated and delaminated concrete. Sounding shall be used to locate delaminated areas. Care shall be exercised not to damage areas of sound concrete or reinforcing steel during concrete removal operations. Concrete removal shall be in accordance with a sequence approved by the Engineer.

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

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

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

The Contractor shall dispose of all removed material off State Right of Way in an approved site. The Department will not measure concrete removal, Concrete Class "M", and steel reinforcement and will consider all work necessary as incidental to the bid item "BRIDGE BARRIER RETROFIT".

- B. Prepare existing surface.** Prepare the existing surface by blast cleaning in accordance with 606.03.04.
- C. Construct new barrier wall.** Drill and epoxy grout reinforcement into existing concrete according to Section 511. Form and pour new barrier wall in accordance with the detailed drawings.
- D. Apply finish.** Apply concrete sealing to new concrete surfaces according to attached detail drawings and Sections 601.03.18 B.

IV. MEASUREMENT. See Section 606 and the following:

- A. Bridge Barrier Retrofit.** The Department will measure the quantity in linear feet from bridge end to bridge end. The wing lengths will be included in the measurement.

V. PAYMENT.

- A. Bridge Barrier Retrofit.** The Department will make payment at the contract unit price per linear foot under the bid item #23032EN "BRIDGE BARRIER RETROFIT" for full compensation for removal and delivery of aluminum railing, repair of spalled concrete, preparation of concrete surfaces, furnishing and installing the concrete and reinforcement, and all incidental items necessary to complete the work within the specified pay limits as specified by this note and as shown on the attached detail drawings.

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

SPECIAL NOTE FOR BRIDGE CLEANING AND PREVENTIVE MAINTENANCE: BEARING CLEANING AND LUBRICATION

I. DESCRIPTION

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

This work consists of the following:

- Furnish all labor, materials, tools, and equipment
- Provide safe access to the bridge in accordance with Section 107.01.01
- Remove stratified and pack rust from bearings
- Pressure wash bearings
- Coat all surfaces of bearings with lubricant
- Maintain and control traffic
- Any other work specified as part of this Contract

II. MATERIALS

- A. Wash Water.** Use clean potable water for all pressure washing.
- B. Bearing Lubricant.** Conform to Manufacturer's Technical Guidance. One of the following lubricants shall be used:
- "Never Seez – Mariner's Choice"* produced by Bostick, Inc.
 - "Mobile Centaur Moly NLGI Grades 1 or 2"* produced by Mobil Oil
 - "Premalub #1 WG"* produced by Certified Labs

III. CONSTRUCTION

A. Bridge Cleaning.

All debris shall be removed from the bridge components. See attached detailed drawings addressing components having debris removal. Equipment for removing debris from the bridge components shall be determined by the Contractor, subject to the approval of the Engineer. The Contractor shall prevent any debris from entering any body of water, bridge drainage system, or traffic lanes. All debris removed shall be disposed of in a suitable off-site disposal facility. Prior to all cleaning work, the Contractor shall confirm that any bridge drainage system is not blocked by un-removable debris. A blocked drainage system is considered to be one from which debris cannot be removed using the means specified in this note. If the Engineer has been notified, and concurs that the drainage system is blocked prior to performing other cleaning work, then proceed at the direction of the engineer. If the

Contractor does not inspect the bridge drainage system and notify the engineer prior to beginning work any blocked drains will be considered to be the result of the Contractor's operations, and all clearing and cleaning of the drainage system shall be done as part of the work of the specification. All vegetation present at areas of the bridge that are to be addressed in this proposal shall be removed as determined by the Engineer.

All cost to complete Debris Removal, Clean Deck Drains and Remove Vegetation shall as specified shall be included in the Lump Sum price for "Bridge Cleaning".

- B. Removal of Stratified and Pack Rust.** Stratified and pack rust shall be removed from all bearing devices. See attached detailed drawings for each bridge showing location and quantity of the bearing devices. Hand tools including wire brushes, scrapers or impact devices (hand hammers or power chisels) are to be used for removing stratified and pack rust. All surfaces to have stratified and pack rust removed shall be cleaned to an SSPC SP-2 level. All debris collected shall be disposed of in a suitable off-site disposal facility.
- C. Pressure Washing.** Specified bridge components shall be pressure washed. All equipment for pressure washing shall be operated at a minimum pressure of up 4,000 psi with 0-degree spinner tips and/or fan tips as determined by the Engineer at the working location with a minimum flow rate of 3.5 gal/minute provided that these pressures do not damage any components of the structure. Pressure and flow rates shall be reduced to a level satisfactory to the Engineer should any damage occur due to power washing procedures. Pressure washing shall be operated at distance of approximately six inches from and perpendicular to the surface. All pressure washing wands shall be equipped with a gauge to accurately determine the amount pressure used. Pressure washing of any bridge element will proceed from top of wash area to bottom of wash area. Wash water will not be released to a bridge element previously washed.
- D. Residual Lead Paint.** Residual lead paint may still be on bridge. The Contractor is advised to take all necessary protective measures including worker safety and environmental regulations when performing surface preparation. The Department will not consider any claims based on residual lead paint.
- E. Bearing Lubrication.** Bearing devices shall be lubricated after all stratified rust and pack rust is removed and power washing is complete, bearing devices shall have lubricant applied to all surfaces of the bearing including bearing plates and points of movement. Allow bearing devices to dry before lubricant is applied. Lubricant must be applied to a clean and dry surface.

IV. MEASUREMENT

- A. Bridge Cleaning and Preventive Maintenance.** The Department will measure the quantity as Lump Sum.
- B. Bridge Cleaning.** The Department will measure the quantity as Lump Sum.

V. PAYMENT

- A. Bridge Cleaning and Preventive Maintenance (23949EC).** Payment at the Contract lump sum price includes all labor, all materials and all incidental items necessary to complete bearing lubrication work in accordance with this Note, the Plans and the Standard Specifications.
- B. Bridge Cleaning (Clear Vegetation) (24981EC).** Payment at the contract unit price for "Lump Sum" is full compensation for Debris Removal, Deck Drain Cleaning, Pressure Washing and all incidental items required to complete this with as specified in this note and attached detailed drawings.

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

SPECIAL NOTE FOR BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS

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

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove the existing overlay or machine prep the existing slab; (3) Complete full-depth and partial depth repairs as directed by the Engineer; (4) Repair/replace damaged and corroded reinforcing bars; (5) Place new concrete overlay and epoxy-sand slurry in accordance with Section 606; (6) Complete asphalt approach pavement; (7) Maintain and control traffic; and (8) Any other work specified as part of this contract.

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

2. **MATERIALS.**

- A. Latex Concrete. See Section 606.03.17.
- B. Class " M " Concrete. Use either "M1" or "M2". See Section 601.
- C. Bituminous Asphalt. Use CL4 ASPH SURF 0.50A PG76-22
- D. Epoxy-Sand Slurry. See Section 606.03.10.

3. **CONSTRUCTION.**

- A. **Surface Preparation.** Remove concrete (and all patches) from existing slab to a depth of at least $\frac{1}{4}$ " below the existing overlay in accordance with the requirements of Section 606.03.03. Clean surface in accordance with Section 606.03.04.
- B. **Full Depth Slab Repair.** After the existing slab has been machine prepared in accordance to Section 606.03.03, perform full depth patching in accordance with Section 606.03.05. The Client will not measure material removal, forming, blast cleaning, or retying steel reinforcement in the patches and will consider this work incidental to the pay item "Concrete Class M Full Depth Patch".
- C. **Partial Depth Slab Repair.** Remove areas determined to be unsound by the Engineer via Hydrodemolition or via hand held jackhammers weighing less than 40 lbs. No wrecking balls, drop hammers, or rig-mounted breakers are allowed. Repair/Replace all damaged or severely corroded reinforcing bars prior to partial depth repair operation. The Department will not measure material removal and will consider this work incidental to the bid item "PARTIAL DEPTH PATCHING".

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

4. MEASUREMENT. See Section 606 and the following:

- A. Latex Modified Concrete (1 1/2 inches thick). The Department will measure the quantity in cubic yards.
- B. Latex Modified Concrete for Partial Depth Patching. The Department will measure the quantity in cubic yards by deducting the theoretical volume of bridge deck overlay (LMC) from the total volume (as indicated by the batch quantity tickets) of Concrete required to obtain the finished grade shown on the Plans or established by the Engineer.
- C. Remove Existing Overlay. The Department will measure the removal of the existing overlay in square yards, which shall include all labor, equipment, and material needed to complete this work.
- D. Steel Reinforcement. The Department will measure any reinforcing steel necessary for the partial or full depth patch in pounds, which shall include all labor, equipment, and material needed to complete this work.

5. PAYMENT. See Section 606 and the following:

- A. Latex Modified Concrete (1 1/2 inches thick). The Department will make payment for the Latex Modified Concrete under bid item #08534 "CONCRETE OVERLAY -LATEX" for the quantity in cubic yards complete in place.
- B. Concrete Class M Full Depth Patch. The Department will make payment for the Full Depth Patching under bid item #08526 "CONCRETE CLASS M FULL DEPTH PATCH". Payment will be for the quantity per cubic yard complete in place.
- C. Latex Modified Concrete for Partial Depth Patching. The Department will make payment for the Partial Depth Patching under bid item #24094EC "PARTIAL DEPTH PATCHING". Payment will be for the quantity per cubic yard complete in place.
- D. Remove Existing Overlay. The Department will make payment for the removal of the existing overlay under bid item #08551 "MACHINE PREP-SLAB". Payment will be for the square yard complete.
- E. Steel Reinforcement. The Department will make payment for additional steel reinforcement, if necessary, under bid item #08150 "STEEL REINFORCEMENT". Payment will be at the unit price per pound.

SPECIAL NOTE FOR REPLACING EXPANSION DAMS AND/OR INSTALLING ARMORED EDGES FOR CONCRETE ON BRIDGES

1. **DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing concrete and expansion device(s) and/or bridge ends; (3) Install armored edges and new concrete as specified and in accordance with the attached detail drawings; (4) Install new joint seals (where required); (5) Maintain and control traffic; and (6) Any other work specified as part of this contract.

2. **MATERIALS.**

- 2.1. **Class "M" Concrete.** Use either "M1" or "M2". See Section 601.
- 2.2. **Structural Steel.** Use new, commercial grade steel suitable for welding. The Engineer will base acceptance on visual inspection. See Standard Drawing BJE-001, current edition.
- 2.3. **Stud Anchors.** The armored edge stud anchors are $\frac{3}{4}$ " x 6" embedded stud shear connectors conforming to ASTM A108, Grade 1015 (Nelson Studs or equal).
- 2.4. **Steel Reinforcement.** Use Grade 60. See Section 602.
- 2.5. **Epoxy Bond Coat.** See Section 511.
- 2.6. **Neoprene Joint Sealers (Compression Seals).** See Section 807.
- 2.7. **Silicone Rubber Sealant.** See Section 807.
- 2.8. **Neoprene Strip Seals.** See attached detail drawings and Section 807.

3. **EQUIPMENT.**

- 3.1. **Hammers.** See Section 606.02.10(B).
- 3.2. **Sawing Equipment.** See Section 606.02.10(C).
- 3.3. **Hydraulic Impact Equipment.** See Section 606.02.10(D).

4. **CONSTRUCTION.**

- 4.1. **Remove Existing Materials.** Remove existing expansion dam, bridge end, armored edges and specified areas of concrete as shown on the attached sketches. Remove debris and/or expansion joint filler as directed by the Engineer. Clean and leave all existing steel reinforcement encountered in place. Damaged steel reinforcement will be repaired/replaced as directed by the Engineer at no additional cost. Dispose of all removed material entirely away from the job site. This work is incidental to the contract unit price for "Expansion Joint Replacement" or "Armored Edge for Concrete".
- 4.2. **Place New Concrete and Armored Edges.** After all specified existing materials have been removed, place new armored edges to match the grade of the proposed overlay or to match the original grade (See attached detail drawings.) Place the new Class "M" concrete to the scarified grade and finish to receive the new overlay or place the new Class "M" concrete to the

original grade and finish with broom strokes drawn transversely from curb to curb. No accelerants are to be added to Class "M" concrete as specified in Section 601 of the Standard Specifications.

All new structural steel shall be cleaned and painted with two coats of commercial primer paint red orange in color, except those surfaces to come in contact with concrete are not to be painted.

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

- 4.3. **Additional Steel Reinforcement.** Furnish for replacement, as directed by the Engineer (see attached detail drawings for reinforcement details). Place these bars in areas deemed by the Engineer to require additional reinforcement. Field cutting and bending is permitted. Do not place any additional steel reinforcement above the height of the top row of Nelson Studs on the armored edges. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04 prior to pouring the new Class "M" concrete. Reinforcement is incidental to the contract unit price for "Expansion Joint Replacement" or "Armored Edge for Concrete".
 - 4.4. **Staged Construction.** Installation of concrete and armored edges in two (or more if specified) stages is necessary. Join the armored edges at or near the centerline of the roadway or lane line, field weld and grind smooth.
 - 4.5. **Preformed Neoprene Joint Seal (If applicable).** Place the preformed joint seal in one continuous, unbroken length. Place neoprene compression seals as recommended by the manufacturer and in accordance with Section 609.03.04(D). Place neoprene strip seals as recommended by the manufacturer and in accordance with Section 609.03.04(E), except that shop drawings will not be required.
 - 4.6. **Silicone Rubber Sealant (if applicable).** Place the silicone sealant as recommended by the manufacturer and in accordance with Section 609.03.04(C).
 - 4.7. **Shop Plans.** Shop plans will not be required. The contractor is responsible for obtaining field measurements and supplying properly sized materials to complete the work.
5. **MEASUREMENT.**
- 5.1. **Expansion Joint Replacement $\frac{3}{4}$ ", 1", 1 $\frac{1}{2}$ ", 2", 2 $\frac{1}{2}$ ", 4".** The Client will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint.

5.2. **Armored Edge for Concrete.** The Client will measure the quantity in linear feet from gutterline to gutterline along the face of the bridge end.

5.3. **Steel Reinforcement.** See Section 602.

6. **Payment.**

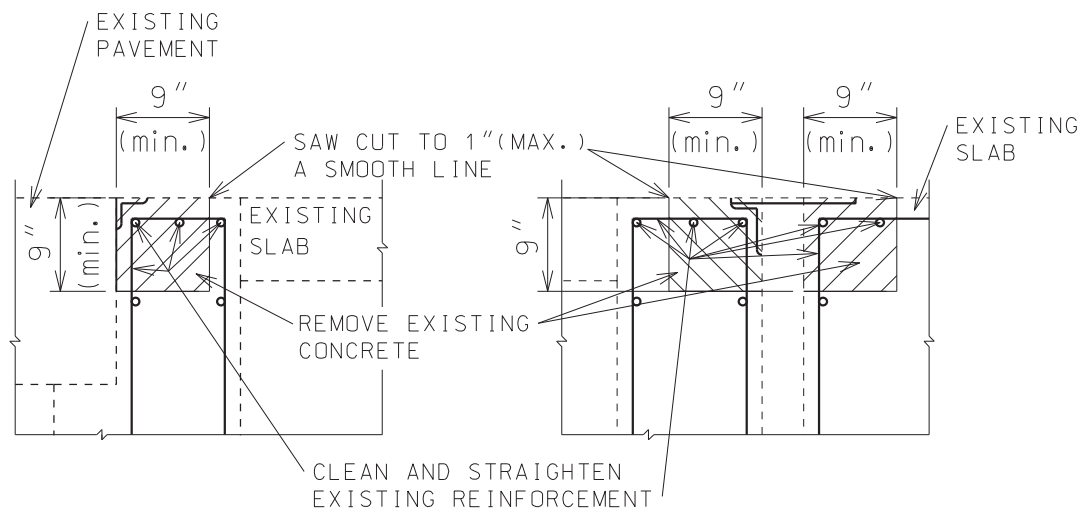
6.1. **Expansion Joint Replacement $\frac{3}{4}$ ", 1", 1 $\frac{1}{2}$ ", 2", 2 $\frac{1}{2}$ ", 4".** Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, neoprene joint seal, and all incidental items necessary to complete the work (except the overlay material, if applicable) within the specified pay limits as specified by this note and as shown on the attached detail drawings.

6.2. **Armored Edge for Concrete (if applicable).** Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete and all incidental items necessary to complete the work (except the overlay material, if applicable) within the specified pay limits as specified by this note and as shown on the attached detail drawings.

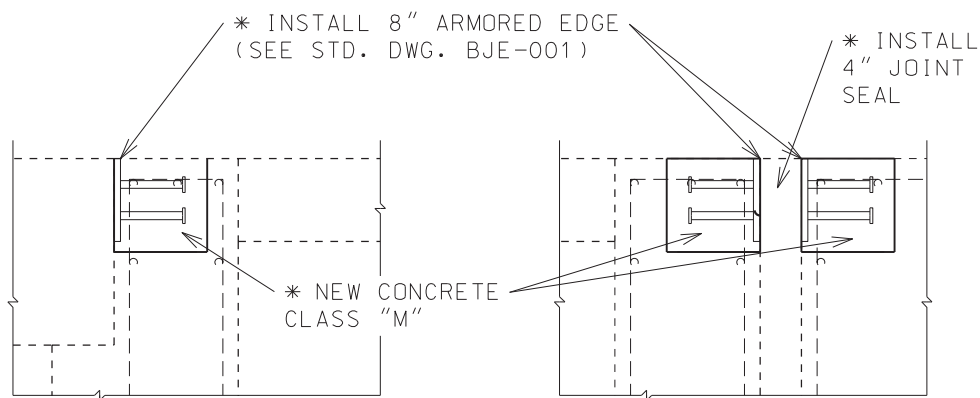
6.3. **Steel Reinforcement.** Reinforcement is incidental to the contract unit price for "Expansion Joint Replacement" or "Armored Edge for Concrete".

The Client will consider payment as full compensation for all work required by this note and the attached detail drawings.

ARMORED EDGE REPLACEMENT DETAIL



EXISTING



* ALL ITEMS REQUIRED FOR REPLACING THE ARMORED EDGE AND JOINT SHALL BE INCLUDED IN THE UNIT BID PRICE FOR "ARMORED EDGE FOR CONCRETE" AND/OR "EXPAN. JT. REPLACEMENT 4.0in"

PROPOSED

SEE "SPECIAL NOTE FOR REPLACING EXPANSION DAMS AND OR INSTALLING ARMORED EDGES" FOR ADDITIONAL DETAILS

SPECIAL NOTES FOR BRIDGE PIER, GIRDER, AND RCBC CONCRETE PATCHING

1. **DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction, any applicable Supplemental Specifications, and these Notes. Section references are to the Standard Specifications. This work consists of: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing spalled/delaminated concrete; (3) Prepare the existing surface for concrete patching; (4) Place hook fasteners and welded wire fabric over surfaces to be repaired (where applicable); (5) Apply concrete patching as specified by this note; (6) Finish and cure the new Concrete Patches; (7) Maintain & control traffic; and, (8) Any other work specified as part of this contract.

2. **MATERIALS.**
 - 2.1. **Concrete.** Approved Concrete Product for Vertical and Overhead Repair Patch.
 - 2.2. **Steel Reinforcement.** Use Grade 60. See Section 602.
 - 2.3. **Welded Steel Wire Fabric (WWF).** Conform to Section 811.
 - 2.4. **Hook Fasteners.** Use commercial grade galvanized hook fasteners. Minimum 3/16" diameter.

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

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

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

After all deteriorated concrete has been removed, the repair surface to receive concrete patching shall be prepared by abrasive blast cleaning. Abrasive blast cleaning shall remove all fractured surface concrete and all traces of any unsound material or contaminants such as oil,

grease, dirt, slurry, or any materials which could interfere with the bond of freshly placed concrete. The Contractor shall dispose of all removed material off site.

- 3.2. **Steel Reinforcement.** All corroded reinforcing steel exposed during concrete removal shall have corrosion products removed by abrasive grit blasting or wire brush whichever is more appropriate. Furnish for replacement, as directed by the Engineer, 200 linear feet of steel reinforcing bars ½" diameter by 20-foot lengths. Place these bars in areas deemed by the Engineer to require additional reinforcement. Field cutting and bending is permitted. Providing & installing steel reinforcement is incidental to concrete patching pay item.

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

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

Welded wire fabric (WWF) shall be provided at each repair area larger than 1 square foot if the depth of the repair exceeds 3 inches from the original dimension of the repaired member. Sheets of adjoining WWF shall be lapped by at least one and one-half spaces at all intersections, in both directions, and be securely fastened. WWF shall be supported no closer than ½ inch to the prepared concrete surface and shall have a minimum concrete cover of 1- ½ inches.

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

- 3.3. **Hook Fasteners.** Hook Fasteners shall be positioned at the spacing as stated above or as directed by the Engineer. Any given area shall have a minimum of four anchors. The WWF shall not move or deform excessively during concrete patching. Maximum hook fastener spacing shall not exceed 2 feet on a grid pattern over the entire repair area. Hook fasteners shall be of commercial grade galvanized steel with a minimum diameter of 3/16". They may be mechanically set or grouted, as approved by the Engineer.
- 3.4. **Concrete Patching.** Place and finish the new concrete for the patching area in accordance with the manufacturer's recommendations, as shown on the attached detail drawings, or as directed by the Engineer. The Engineer shall approve the Contractor's method of placing and consolidating the concrete prior to the beginning of this operation.
- 3.5. **Curing.** On completion of finishing operation, patching concrete shall immediately be prevented from drying out and cracking by fogging, wetting, and/or any appropriate method

approved by the Engineer. Curing shall continue for duration recommended by the product manufacturer.

Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize himself with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department.

Quantities given are approximate. The quantity for "Concrete Patching Repair" shall be bid with the contingency that quantities may be increased, decreased, or eliminated by the Engineer. Dispose of all removed material entirely away from the job site as approved by the Engineer. This work is incidental to the contract unit price for "Concrete Patching Repair".

4. **MEASUREMENT.**

- 4.1. **Concrete Patching Repair.** This item will be measured as the quantity per square feet of each area restored.
- 4.2. **Steel Reinforcement.** Will not be measured for payment but shall be considered incidental to "Concrete Patching Repair".
- 4.3. **Welded Wire Fabric & Hook Fasteners.** Welded Wire Fabric and Hook Fasteners will not be measured for payment but shall be considered incidental to "Concrete Patching Repair".

5. **PAYEMENT.**

- 5.1. **Concrete Patching Repair.** Payment at the contract unit price per square feet is full compensation for work performed as described in this note.
- 5.2. **Steel Reinforcement.** Reinforcement shall be considered incidental to "Concrete Patching Repair".
- 5.3. **Welded Wire Fabric & Hook Fasteners.** Welded Wire Fabric and Hook Fasteners shall be considered incidental to "Concrete Patching Repair".

SPECIAL NOTE

For Establishing Pollinator Plots

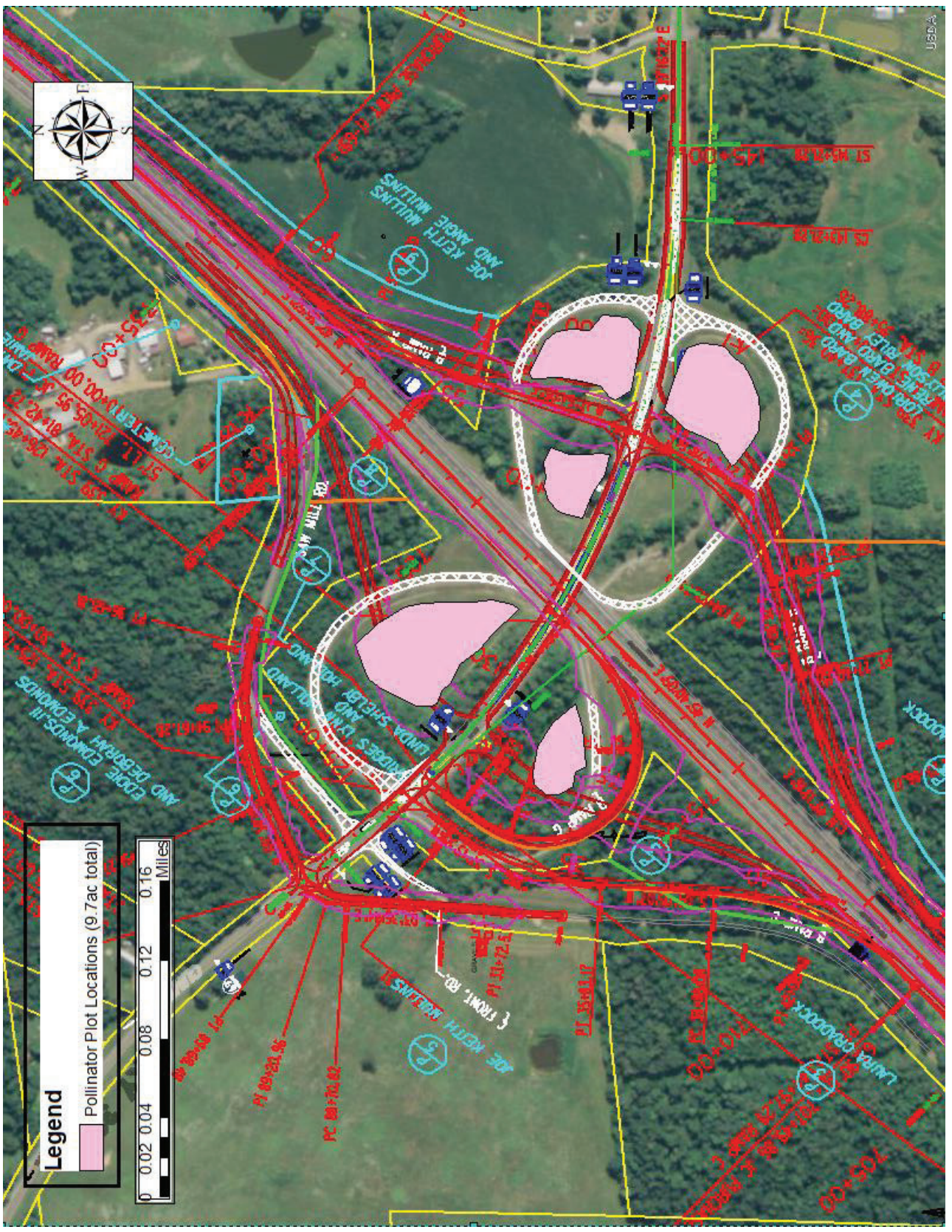
Fulton/Graves/Hickman County

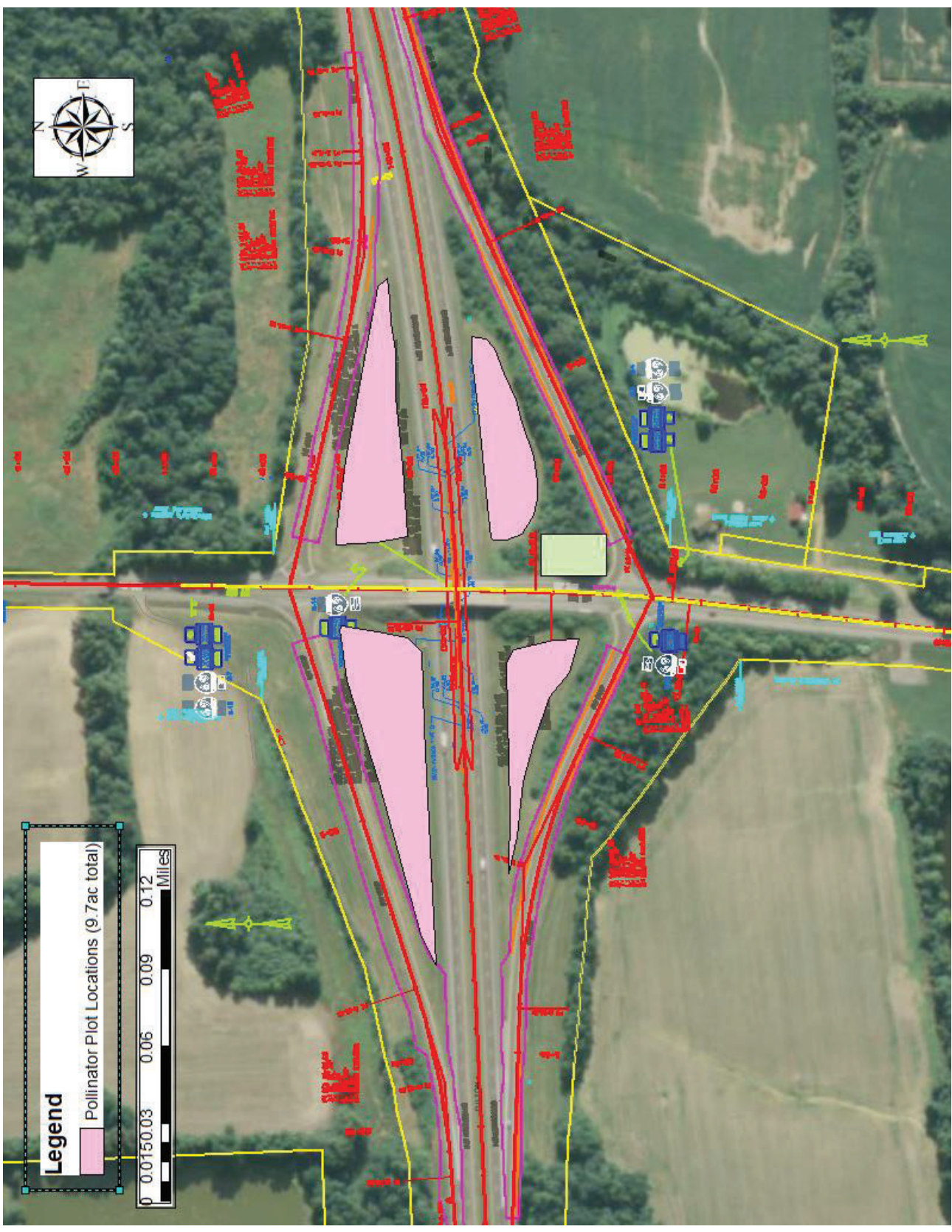
**IMPROVE THE PURCHASE PARKWAY FROM SOUTHWEST OF THE US-51
INTERCHANGE TO CARDINAL ROAD NEAR MAYFIELD INCLUDING THE KY-339
INTERCHANGE IN WINGO, KY.**

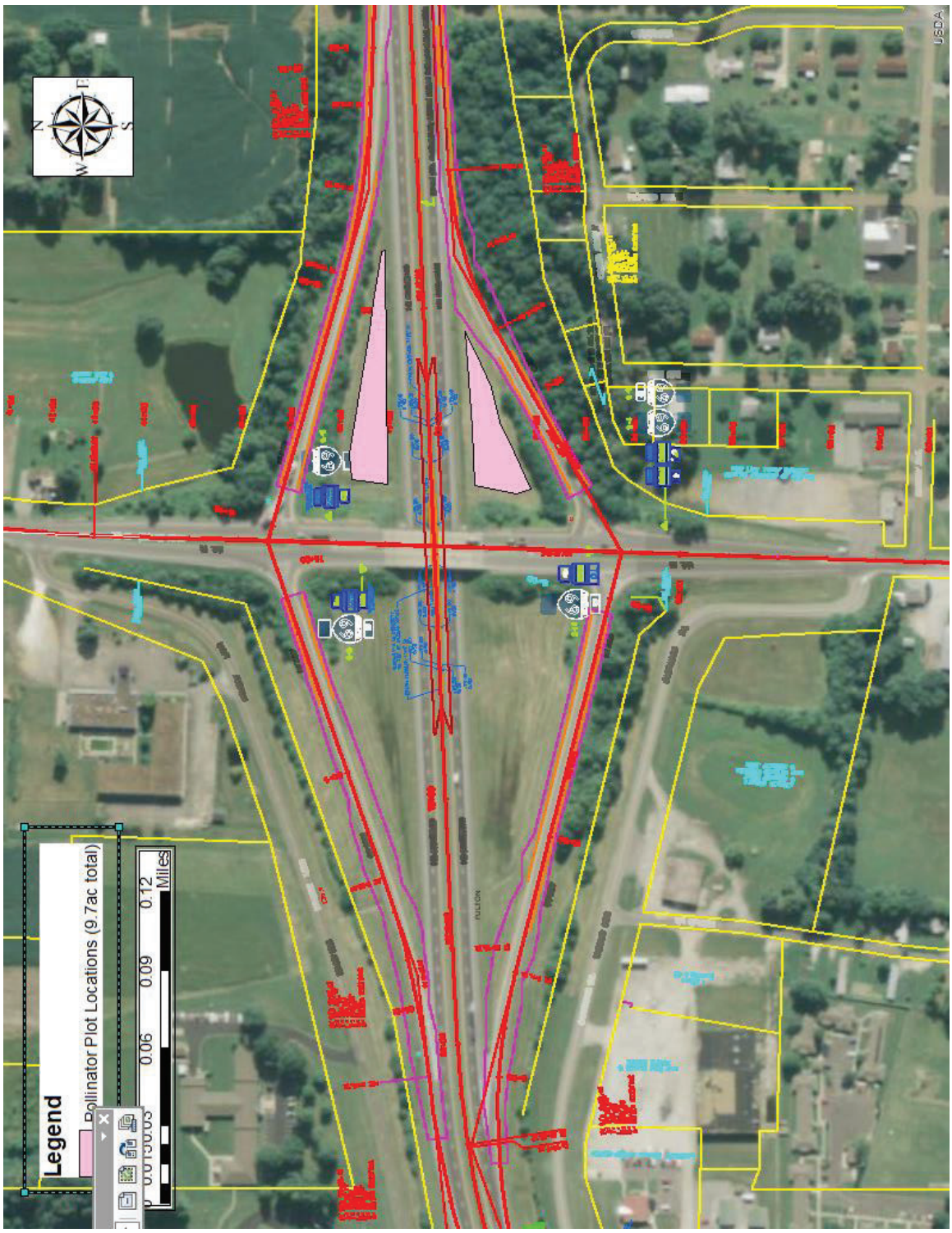
Item No. 01-26

Ground disturbance within areas designated for future pollinator plot development (see attached images) will be limited to tree removal, ground preparation, and temporary seeding with annual seed species as required. Soil compaction shall be minimized to the maximum extent practicable. The future pollinator plot areas are designated within project plans. Staging of equipment is also prohibited in areas designated for pollinator plots. No tree or vegetation removal shall take place on the southeast quadrant of the KY307/I69 interchange.

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 Construction Activities for the
Protection of Federally Endangered Relic Darter**

**Fulton, Hickman, Graves Counties
IMPROVE THE PURCHASE PARKWAY FROM
SOUTHWEST OF THE US-51 INTERCHANGE TO
CARDINAL ROAD NEAR MAYFIELD INCLUDING THE
KY-339 INTERCHANGE IN WINGO, KY. (I-69 CORRIDOR
IMPROVEMENT)
Item No. 01-26**

ALL WORK REQUIRED WITHIN STREAMBEDS WILL TAKE PLACE WHEN THE
STREAMBEDS ARE DRY. MOVING WATER OR STANDING POOLS WILL NOT
BE AFFECTED IN ANY STREAMBED. NO EFFECTS TO THE WATERS OF THE
BAYOU DE CHIEN.

**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 Construction Activities for the Protection of Federally Endangered Relic Darter

Fulton, Hickman, Graves Counties IMPROVE THE PURCHASE PARKWAY FROM SOUTHWEST OF THE US-51 INTERCHANGE TO CARDINAL ROAD NEAR MAYFIELD INCLUDING THE KY-339 INTERCHANGE IN WINGO, KY. (I-69 CORRIDOR IMPROVEMENT) Item No. 01-26

CONSTRUCTION OF A BRIDGE BARRIER RETROFIT, NEW GUARDRAIL AND CRASH CUSHION WILL BE CONSTRUCTION ON THE BRIDGE OVER THE BAYOU DE CHIEN. WORK OVER THE BAYOU DE CHIEN WILL BE LOCALIZED TO THE BRIDGE. BMPS WILL BE CONSTRUCTED WHERE NECESSARY TO PREVENT RUNOFF INTO THE RIVER. NO EFFECTS TO THE WATERS OF THE BAYOU DE CHIEN.

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.

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

1-26.00

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Section 1: PROJECT DESCRIPTION

GENERAL

This project includes furnishing and installing Cameras along I-69 for comprehensive camera coverage in the project area to allow monitoring throughout the project area in addition to providing insight into traffic volumes at the interchanges with I-69. This equipment will expand the traffic monitoring and advisory capabilities of the District, KYTC TOC and TRIMARC.

This ITS Project complies with the requirements of 23 CFR 940. The ITS work to be performed is referenced in the current Kentucky 2009 Statewide ITS Architecture at Appendix C-4,5 and C-4 (Traffic Incident Management System ATMS08, and Traffic Information

Dissemination ATMS06), and in the Updated Section 5 and Appendix B of the 2009 Addendum to the Original Kentucky ITS Business Plan.

EQUIPMENT AND MATERIALS

All equipment and materials shall be new, free of defects and damage.

SPECIFICATIONS AND WORKMANSHIP

Unless otherwise specified, all work shall conform to the following:

- Kentucky Standard Specifications for Road and Bridge Construction, latest edition.
- FHWA, Manual on Uniform Traffic Control Devices, latest edition.
- National Electrical Code, latest edition.
- National Electric Safety Code, latest edition.
- KYTC Department of Highways Standard Drawings, current editions.
- KYTC Department of Highways Sepia Drawings, current editions.
- International Municipal Signal Association (IMSA) Specification No. 51-7, current edition.
- AASHTO, Roadside Design Guide, latest edition.
- AASHTO, Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, latest edition.

All work shall be performed in a neat and professional manner. The Contractor shall remove debris and trash from work areas during construction. The Contractor shall restore areas to original condition and clean up all debris after construction.

DAMAGE TO EXISTING FACILITIES

The Contractor shall be responsible for locating all underground utilities prior to excavation. The contractor shall repair damage caused to any public or private facilities at his expense. Utilities include but are not limited to telephone, power, water, gas, fiber optic cable, underground vaults, roadway lighting wiring, traffic signal wiring, and roadway drainage systems.

MATERIALS LIST

The contractor shall provide an equipment list in Microsoft Excel format to the Engineer containing the following information:

- Type of equipment
- Field location
- Make
- Model
- Serial number
- Date of purchase
- Manufacturer contact information

- Equipment vendor contact information (if different)
- Date of Installation
- Date warranty expires

This list shall be provided to the Division of Traffic Operations prior to burn-in testing.

WARRANTY

The Contractor shall provide a copy of all equipment warranty information to the Division of Traffic Operations. A warranty of 2 years from the date of official project completion and acceptance is required for all equipment with the extra stipulation that the warranty period for the DMS/VMS equipment be warranted for 5 years.

The Contractor shall provide documentation from the manufacturer that ownership of the warranty is transferred to the following:

Kentucky Transportation Cabinet
Division of Traffic Operations
200 Mero Street
Frankfort, KY 40622

TESTING

The Contractor shall demonstrate proper functioning of all devices at the field cabinets.

A 30-day equipment burn-in test will begin after each device is demonstrated to be operational at the field site and remote operation has been integrated and is fully operational. If a device fails during the 30 burn-in day test the Contractor shall repair or replace the device and demonstrate that the device is functioning at the field cabinet and a new 30-day burn-in test will begin for that device. Each device will be accepted after it has successfully completed its 30-day test. The 30-day burn-in test will be conducted by TOC personnel (in Frankfort and/or TRIMARC in Louisville) from the operations center and consist of operational control of PTZ and video of the remote camera location and DMS/VMS control to activate and deactivate messages.

SHOP DRAWINGS

All items that are used on this project shall have shop drawings sent to Engineer, who will contact Division of Traffic Operations for approval. All items shall be approved before purchase of said items.

AS-BUILT DRAWINGS

The Contractor, at the completion of the project, shall submit as-built drawings. As-built drawings shall be submitted in electronic format such as .pdf, .tiff, .dgn or other standard image format acceptable to the Engineer. As-built drawings may be scanned from marked up field plans or drawn in MicroStation. As-built drawings shall be scanned at a resolution that will allow them to be clearly legible on a computer display. As-built drawings shall include the exact location of all above ground equipment, underground conduit, wire, sensors and other equipment. Drawings shall indicate any changes to the design including changes to the numbers of conductors, wire gage, splices, additional conduit, etc. Conduit locations shall be drawn to scale or shall be dimensioned and referenced to permanent roadway features.

Turns in conduit shall be referenced so that the conduit paths may be derived from the as-built drawings. Existing underground utilities shall be indicated on the drawings. Two copies of the drawings shall be submitted. One copy of the drawings shall be submitted to the Engineer. One copy of the drawings shall be submitted to the KYTC Division of Traffic Operations Design Services Branch, Ted.Swansegar@ky.gov and one copy to Todd.Hood@peraton.com with one copy delivered to the local District Office Engineer in Charge of the Project. The Contractor shall correct any drawings that are deemed unacceptable to the Engineer. As-built drawings shall be delivered prior to burn-in testing.

COORDINATION

SYSTEM COMPATIBILITY

The Contractor is responsible for coordinating with KYTC/TRIMARC to insure equipment compatibility and to complete integration of equipment into the KYTC/TRIMARC project.

COMMUNICATIONS

Camera shall communicate with the control center over the new ethernet IP connection (coordinated with KYTC/TRIMARC). The Contractor shall be responsible for furnishing and installing all conduits, junction boxes and communication cables installed on Kentucky right-of-way as specified in the plans. The Contractor shall be responsible for the installation and correct operation of all communications systems located in the field cabinet to the field devices. Testing of the Contractor's work will be performed both locally at the cabinet and remotely at the TRIMARC Traffic Operations Center. TRIMARC personnel will assist with any troubleshooting necessary to resolve problems with the communication equipment.

EQUIPMENT LIST

The contractor shall provide an equipment list in Microsoft Excel format to the Engineer containing the following information:

- Type of equipment
- Field location
- Make
- Model
- Serial number
- Date of purchase
- Manufacturer contact information
- Equipment vendor contact information (if different)
- Date of Installation
- Date warranty expires

This list shall be provided to the KYTC Division of Traffic Operations and TRIMARC Systems Administrator prior to burn-in testing. See below for TRIMARC Info:

Mr. Todd Hood

TRIMARC Systems Administrator
901 W. Main St.
Louisville, KY 40202
Phone: 502-587-6624
Office: 502-290-7201
Email: Todd.Hood@peraton.com

Kentucky Transportation Cabinet
Division of Traffic Operations Attn: Ted Swansegar
200 Mero Street
Frankfort, KY 40622
Ted.Swansegar@ky.gov

TESTING

The contractor shall demonstrate proper functioning of all devices at the field communications demarcation point. After each device can be successfully operated at the field communications demarcation point the devices will be integrated into the TRIMARC Traffic Operations Center. A 30 day equipment burn-in test will begin after each device is integrated and can be remotely controlled from the operations centers. The Contractor is responsible for repairing or replacing defective equipment during the period between the field test and the start of the 30 day burn-in test.

The 30 day burn-in test will be conducted by TRIMARC from the operations center and consist of operational control of PTZ and video of the remote camera location.

If a device fails during the 30 burn-in day test, TRIMARC personnel will test the device at the field cabinet. If the device cannot be operated at the field cabinet the Contractor shall repair or replace the device and a new 30-day burn-in test will begin for that device.

The project will be accepted after all devices have completed their 30-day test successfully, acceptable as-built drawings and warranty information have been received.

Section 2: SITE PREPARATION

DESCRIPTION

Site Preparation shall be performed in accordance with the plans, specifications and Standard Drawings.

MATERIALS

Site Preparation shall include all materials required to access and protect the work area.

INSTALLATION

The Contractor shall coordinate with the Engineer prior to performing any site preparation work. This item includes excavation, guardrail removal, guardrail replacement, temporary ditch crossings, temporary barriers and clearing of debris and foliage. Salvaged materials may be used at the discretion of the Engineer. Site preparation shall be one per VMS sign location and WEB/CCTV camera location. There shall not be site preparation for locations that have web cameras installed on existing signal poles and existing highmast.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Site Preparation will be measured for payment per unit each. The Department will make payment for complete, functioning, inspected, and accepted quantities. The Department will consider payment as full compensation for all work required under this section.

Section 3: ADVANCED GROUNDING SYSTEM

DESCRIPTION

Furnish and install Advanced Grounding System in accordance with the plans, specifications and Standard Drawings.

MATERIALS

Unless otherwise specified, the grounding system provided will be as shown in "Advanced Grounding System Details". Minimum ground resistance reading needs to be 10 ohms or less as tested via the 3 point fall of potential test method.

If the installation of the advanced grounding system is not possible due to physical constraints of the location or other extenuating factors, the TRIMARC Systems Engineer or Traffic Engineer may allow for a standard ground installation. The standard installation would be with ground wiring consisting of solid bare copper #4 AWG and securely connected inside enclosures with #4 AWG copper clamp connectors. Nuts and washers securing the wire are not acceptable. All grounding shall meet the National Electric Code. Ground wires shall be exothermically welded to the ground rods. Ground rod clamps are not acceptable. The following devices shall be grounded to an array of two or three, 10' X 1" copper coated steel ground rods:

- Model 334/336 Enclosures (two ground rods required)
- Camera Poles (three ground rods required)
- Side-mounted VMS(two ground rods required)
- Service Locations(two ground rods required)

All ground rods in arrays shall have a minimum of 6' separation.

The resistance to ground shall be less than 10 Ohms as measured with an AEMC clamp on ground resistance meter or equivalent. The Contractor shall leave all exothermic welds

exposed for inspection by the TRIMARC Systems Engineer or Traffic Engineer before backfilling.

INSTALLATION

All grounding shall be according to standards shown on “Advanced Grounding System Details”. If contractor needs help with installation, they can contact Alltec Corporation for further assistance at 800-203-2658.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Advanced Grounding System will be measured for payment per each. The Department will make payment for complete, functioning, inspected, and accepted quantities. The Department will consider payment as full compensation for all work required under this section.

Section 4: POLE BASE

DESCRIPTION

Furnish and install Pole Base in accordance with the plans, specifications and Standard Drawings.

MATERIALS

Pole Base includes concrete, anchor bolts, reinforcing steel, and conduit within base. The Contractor shall submit to material testing at the discretion of the Engineer.

INSTALLATION

The Contractor shall stake all proposed pole base locations and obtain approval before excavation. The Traffic Engineer (District 1) will approve locations for pole bases in their districts. Any poles bases in Bullitt shall be approved by the TRIMARC representative. The Contractor shall have utilities marked in the field prior to requesting approval. The Contractor shall allow two weeks to schedule the location approval. KYTC/TRIMARC approval of field device location does not relieve the contractor from his responsibility to avoid utilities and repair any damage to buried infrastructure. The Contractor shall grade and re-seed all disturbed areas and restore the area to the satisfaction of the Engineer. Poles located behind guardrail shall have a minimum 5’ spacing from edge of pole to face of guardrail. Otherwise, poles shall be located as according to the plans sheets or a minimum of 30’ from all driving lanes. This item includes all excavation including any special equipment required to install the base in rock. This item shall include a vented rodent barrier furnished and installed by the contractor. See Vented rodent barrier detail.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Pole Base/Pole Base-High Mast will be measured for payment per unit each. The Department will make payment for complete, functioning, inspected, and accepted

quantities. The Department will consider payment as full compensation for all work required under this section.

Section 5: POLE WITH LOWERING DEVICE

General Description

The camera lowering system shall be designed to support, lower and raise an Ethernet fed IP CCTV Camera, housing, and PTZ mechanism without damage or causing degradation of camera operations. The camera lowering system and the pole are interdependent; and thus, must be considered a single unit or system. The lowering system shall consist of a pole, adjustable plate mounted pole top tenon, tenon adapter for lowering device attachment to the pole top tenon, suspension contact unit, divided support arm, pole top junction box, conduit mount adapter, camera junction box, external mounted stabilization weights, and a permanently mounted winch on the interior of the pole. The divided support arm and receiver brackets shall be designed to self-align the contact unit with the pole center line during installation and ensure the contact unit cannot twist under high wind conditions. For maximum arm strength, round support arms are not acceptable. The camera-lowering device shall withstand wind forces of 100mph with a 30 percent gust factor using a 1.65 safety factor. The lowering device manufacturer, upon request, shall furnish independent laboratory testing documents certifying the device's adherence to the stated wind force criteria utilizing, as a minimum effective projected area, the actual EPA or an EPA greater than that of the camera system to be attached. The camera lowering system to be furnished shall be the product of manufacturers with a minimum of 5 years of experience in the successful manufacturing of camera lowering systems. The camera lowering device shall be the [MG]² Model CLDMG2-HYPIP6(2)-XXX(ST)-PERM or pre-bid approved equal. (The requirements for submitting alternative devices for approval prior to the bid opening date are found in the project documents.)

The lowering device manufacturer shall furnish an authorized factory representative to oversee the installation contractor's assembly and testing of the first lowering system onto the pole assembly for each project. The manufacturer shall furnish the applicable DOT engineer documentation certifying that the installation contractor has been instructed on the installation, operation, maintenance and safety features of the lowering device for the particular project. Thereafter, the contractor shall be responsible for providing applicable maintenance personnel "on site" operational instructions.

Suspension Contact Unit and Contact Block

The suspension contact unit shall have a minimum load capacity of 600 lbs. with a 4 to 1 safety factor. There shall be a locking mechanism between the fixed and moveable components of the lowering device. The movable assembly shall have a minimum of 2 latches. This latching mechanism shall securely hold the device and its mounted equipment. The latching mechanism shall operate by alternately raising and lowering the assembly using the winch and lowering cable. When latched, all weight shall be removed from the lowering

cable. The fixed unit shall have a heavy duty cast tracking guide and means to allow latching in the same position each time. The contact unit housing shall be weatherproof with a gasket provided to seal the interior from dust and moisture. The entire unit shall have a minimum temperature rating of -40 degrees F to +190 degrees F (-40C to 90C).

The prefabricated components of the lift unit support system shall be designed to preclude the lifting cable from contacting the network and/or power cabling of the CCTV or any other device mounted upon the pole. The lowering device manufacturer shall provide a conduit mount adapter for housing the stainless steel lowering cable. This adapter shall have an interface to allow the connection of a contractor provided 1.25 inch PVC conduit and be located just below the cable stop block at the back of the lowering device. The Contractor shall supply internal conduit in the pole as directed by the Camera Lowering Device (CLD) provider. The only cable permitted to move within the pole or lowering device during lowering or raising operations shall be the stainless steel lowering cable. All other cables must remain stable and secure during lowering and raising operations.

ETHERNET CONTACT BLOCK

The CLD must be properly equipped with a multiple contact connector designed and tested specifically for Ethernet devices or equipment utilizing Gigabit communications with or without POE. The Contact Connectors shall be designed for extreme environmental outdoor use per the technical requirements in the specifications and plans. Each Lowering Device shall be equipped with TWO distinct Shielded Ethernet contact connector blocks providing TWO separate individual Ethernet feeds regardless of whether one or two Ethernet devices is mounted upon the CLD. In the instance where only one Ethernet device being mounted, a second completed installed and readied Ethernet feed shall remain available for future equipment or as a back-up to the initial Ethernet feed.

Each Ethernet contact block shall consist of a female and male half. For environmental durability, the female and male socket contact halves shall be made of an outdoor rated thermosetting synthetic rubber. The female barrel contacts and the male pin contacts shall be permanently and integrally encased in this rubber material to ensure optimum protection against moisture and the environment. For optimum weatherproofing, each male pin shall be self-wiping with a shoulder or "O" ring at the base of each male contact so that it will recess into the female block, thereby giving a rain-tight seal to each individual contact when mated. Further, the wire leads from both the male and female rubber contact blocks shall be permanently and integrally molded in the overall synthetic rubber contact block body.

For optimum electrical conductivity and durability, all signal carrying male pin and female socket/barrel contacts shall be copper alloy and Gold plated per ASTM B-488. To ensure pins are not easily bent, the Male contact sizing shall be a minimum of 0.09 inches O.D., while the female contacts shall be at least 0.09 inches I.D. at the contact area. All contacts shall be a minimum of 0.09 inches in diameter at the contact area. Each individual female barrel contact shall have a sleeve which prevents foreign particles from entering the contact area as well as preclude the possibility of the tines of the female contact from opening beyond allowable limits and ensure a snug fit around the respective male pins. The contact

block shall have a spring loaded design that provides constant pressure on the contact block enabling consistent electrical and data performance during moderate shaking conditions.

For proper and complete performance, each Ethernet/IP Male-Female connector shall be equipped with a total of (14) specifically designed contacts. Nine (9) of the (14) male contacts shall be silver soldered to Cat6a High Flex Shielded Industrial Ethernet Cable and end terminated with a RJ45 (shielded) male connector, and Five (5) of the (14) male contacts shall be silver soldered to (5) individual #18/1 UL lead wires – bare and numbered 1-5, which may be used for additional camera/equipment requirements including but not limited to power, alarms or grounds. Nine (9) of the (14) female contacts shall be silver soldered to Cat6a High Flex Shielded Industrial Ethernet Cable and end terminated with a 10Gbps rated M12 8-position, shielded connector which will interface and provide a minimum IP65 rated connection with the Ethernet cable fed from the pole (or ground mounted) equipment cabinet. Five (5) of the (14) female contacts shall be silver soldered to (5) individual #18/1 UL lead wires – bare and numbered 1-5, which may be used for additional camera/equipment requirements including but not limited to power, alarms or grounds. These leads shall be factory or field terminated with an applicable AMP type circular connector as an interface with the applicable wire leads on the cable fed from the pole (or ground mounted) equipment cabinet. The installation of the M12 and AMP connector shall either be done at the CLD factory or in the field by the installation contractor. All connections and terminations must have field verifiable continuity prior to each pole's erection. All cable jackets shall be outdoor rated. All silver soldering shall be per IPC J STD-001E. Each individual contact shall be rated for up to 600v and 7A but de-rated according to the wire used in the application.

Each Ethernet connector block must be tested & verified for Ethernet Data Transmission speeds of up to 1000Base-T (1 GigaBit per Second). If requested, a copy of the verified connector test report showing 1000Base-T compliance shall be provided.

CAMERA JUNCTION BOX

The camera junction box is essential for providing both a mounting location for the CCTV as well as an interface compartment for wire leads from the lowering device to the CCTV or applicable switches or surge suppression modules. The camera junction box shall be of two piece clamshell design with one removable hinge side and one latch side with single toggle bolt to facilitate easy access. The general shape of the box shall be cylindrical to minimize the effective projected area. The Camera Junction Box shall be cast aluminum with stabilizing weights on the outside of the box to increase room on the interior. The box shall be capable of having up to 40 pounds of stabilizing weights. The bottom of the Camera Junction Box shall be drilled and tapped with a 1-1/2" NPT/Female thread to accept industry standard dome housings and be able to be modified to accept a wide variety of other camera mountings. The junction box shall be gasketed to prevent water intrusion. The bottom of the box shall incorporate a screened and vented hole to allow airflow and reduce internal condensation.

LOWERING WINCH

The camera lowering device (CLD) shall be operated by use of a permanently mounted winch. This winch shall be securely bolted on the interior of the pole as designed and shown on the plans. The winch shall operate by use of an included manual hand crank. The winch shall have the ability to operate (raise and lower but not latch) electrically by use of additional equipment noted in the provisions. The winch shall be designed to spool the required amount of stainless steel lowering cable to lower and raise the CCTV camera and shall be accessed and operated through the handhole approximately 30-36 inches from ground level. This handhole shall be sized according to the requirements of the lowering device provider. The winch and stainless steel cable shall support the load during lowering/raising operations. The winch assembly shall include an integrated automatic braking system that prevents freewheeling when loaded and shall have a reduction gear to reduce the manual effort required to operate the lifting handle to raise and lower a capacity load. The lowering winch shall be made of durable and corrosion resistant materials or otherwise protected from the environment by industry-accepted coatings to withstand exposure to a corrosive environment. The unit shall have a Thern model winch with a 2.85 to 1 gear ratio.

(e.1) Electrical Operation of the CLD Winch

If required, a quantity (as designated by the provisions and plans) of Electric Drill Assemblies & Custom Clutch Adapters can be provided to interface with the standard permanently mounted winch.

One complete set of Electric Drill Assembly & Custom Clutch Adapter is not required for EACH Pole, but rather a certain quantity shall be required per project and noted on the plans or otherwise herein. All Electrical Drill Assemblies shall be a CLD Manufacturer authorized LOW RPM, Variable Speed, Reversible, ½ inch chuck, Corded Electric Drill. Each Drill shall be provided with an attachable factory tensioned adjustable clutch adapter which will serve as the attachment mechanism of the drill to the winch. The clutch adapter will be factory tensioned to prohibit over-torquing of the winch during the electric operation. All Electric drill assemblies and clutch adapters shall be delivered to the applicable DOT engineer upon project completion.

MATERIALS

All pulleys for the camera lowering device shall have sealed, self-lubricated bearings, oil tight bronze bearings, or sintered- oil impregnated, bronze bushings. The lowering cable shall be a minimum 1/8-inch diameter stainless steel aircraft cable with a minimum breaking strength of 1740 pounds with (7) strands of 19 wire each.

The fixed and lowerable portion of the contact block and the individual contacts shall be protected from exposure to the weather by both a gasket on the bottom side of the bell housing enclosure as well as the “O” ring shoulders at the base of each male contact pin.

The interface and locking components shall be made of stainless steel and/or aluminum. All external components of the lowering device shall be made of corrosion resistant materials, powder coated, galvanized, or otherwise protected from the environment by industry-accepted coatings to withstand exposure to a corrosive environment.

In the event the mounted camera is a non-dome or otherwise not centrally weight balanced and plumb, the Camera Manufacturer shall provide weights and /or counterweights and/or brackets as necessary to assure that the alignment of pins and connectors are plumb when tethered on the cable to allow the camera to be raised and locked into position without binding.

The Camera Manufacturer or integrator shall provide any alternate power/signal connectors and weatherproof interface couplers for attachment to the 1-5 bare leads and Ethernet cable in the pole top and/or camera junction boxes in a manner acceptable to the project engineer.

The Camera Manufacturer, camera supplier or integrator shall provide appropriate length (Per camera location) of outdoor rated Ethernet cable and any additional power/signal cables in one continuous run from the respective equipment cabinet to the pole top junction box of each lowering device pole.

The contractor shall demonstrate to the Engineer the proper and repeated operation of the lowering device. Proper camera operation and electrical connections shall be verified after each lowering/raising cycle.

CAMERA LOWERING SYSTEM POLE

DESIGN: Design shall be in accordance with the 2013 edition of AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals including all addendums. Minimum Loading requirements shall be based on an isotach wind velocity for the area of installation according to the current AASHTO isotach wind chart. PE Stamped Calculations and detailed drawings for each height pole shall be submitted demonstrating compliance with the AASHTO specifications and any additional performance requirements herein.

Loading shall be based on:

- basic wind speed of 90 mph
- 30 percent gust factor / 1.65 safety factor
- design life/recurrence interval of 50 years
- fatigue category I.

- a total mounted weight of 130 LBS. and an Effective Projected Area (EPA) of 3.0ft² for the CLD & Camera

To avoid vortex shedding, the steel pole members shall have a taper of 0.14 in/ft. All structures shall be designed to natural wind gust conditions. The yearly mean wind speed for natural wind gusts will be assumed to be 11.2 per hour. Design for galloping and truck induced gust fatigue is not required for these structures.

Poles up to 50' in length shall be one-piece construction. Poles greater than 50' in length shall be of two-piece construction. Poles shall conform to ASTM A595, Grade A minimum yield strength of 55 ksi, or ASTM A572 minimum yield strength of 65 ksi. Pole, base plate, and all associated hardware shall be galvanized per ASTM A123 or A153. Poles greater than 50' in length shall be of multi-piece slip-fit construction. The shaft shall be round or 16 sided with a four inch corner radius and contain only one longitudinal seam weld. Circumferential welded tube butt splices and laminated tubes are not permitted. Longitudinal seam welds within 6 inches of complete penetration pole to base plate welds shall be complete penetration welds. The shaft shall be hot dip galvanized per the requirements of the contract documents. The interior diameter of any top shaft at the point of Tenon attachment, regardless of pole height, shall be at least 5.5 inches to accommodate lowering device requirements. The interior diameter of the pole at the location of the permanent winch must be satisfactory to allow the installation, operation and maintenance of the winch. The winch shall be equipped with a winch mount plate or shelf for the permanent attachment of the winch mechanism.

The pole top deflection shall not exceed one inch in a 30-mph (non-gust) wind. The calculations shall include a pole, base plate, and anchor bolt analysis. The pole detail analysis shall be analyzed at the pole base, at 5-ft. pole intervals, and at each slip joint splice.

A detail analysis of the pole shall be submitted. The detailed analysis shall include, but not be limited to, the following calculations:

1. Provide Group I, II, III, IV load combinations as listed in Table 3-1 Group Load Combinations in AASTHO.
2. Provide dimensions and weights for all attachments. This includes areas used for wind, ice and fatigue loads, drag coefficients, projected areas, velocity pressures and wind force for each segment.
3. For Group Loads II, III, and IV, which have wind loads, provide calculations for each controlling "worst case" wind direction that controls any aspect of the design (anchor bolts, pole sizing, ect.)
4. Anchor Bolts shall be designed for the orientation that would provide the maximum stress on any individual bolt.
5. Provide all structural properties for poles, anchor bolts and base plates. This includes the poles diameter, thickness, section modulus, moment of inertia, and cross sectional area.

6. Calculations for each member shall include loads, section properties, member forces (axial, shear and bending), member deflections (angular and linear), member stresses (actual and allowable), and the combined stress ratio (CSR).
7. Fatigue calculations should be shown for all fatigue related connections. Provide the corresponding detail, stress category and example from Table 11-2 in AASHTO.
8. In fatigue calculations, the effective throat thickness of a complete joint penetration groove weld shall be the thickness of the thinner part joined per AISC J2.1a.

Each pole shall be equipped with a permanently affixed label/tag - 6 feet from the bottom of the base plate on the outside with the following information:

manufacturer

height

minimum stringing tension at yield

order number, and

maximum deflection rate.

ALL detailed calculations shall be stamped & certified by current licensed Professional Engineer.

FABRICATOR: The Fabricator shall be certified under Category I, "Conventional Steel Structures" as set forth by the American Institute of Steel Construction Quality Certification Program. Proof of this certification will be required prior to bid opening to ensure that the fabricator has the personnel, organization, experience, procedures, knowledge, equipment, capability and commitment to fabricate quality pole structures.

WELDING: All welding shall be in accordance with Sections 1 through 8 of the American Welding Society (AWS) D1.1 Structural Welding Code. Tackers and welders shall be qualified in accordance with the code. Tube longitudinal seam welds shall be free of cracks and excessive undercut, performed with automatic processes, and be visually inspected. Longitudinal welds suspected to contain defects shall be magnetic particle inspected. All circumferential butt-welded pole and arm splices shall be ultrasonically or radiographically inspected.

MATERIAL CERTIFICATIONS: All materials and products shall be manufactured in the United States of America, and comply with ASTM or AASHTO specifications. Mill certifications shall be supplied as proof of compliance with specifications.

HAND HOLE for PERMANENT WINCH: The hand hole opening shall be reinforced with a minimum 2-inch wide hot rolled steel rim and be of a size that allows proper and safe installation, operation and maintenance of the permanent winch. Unless otherwise noted on

the plans, the bottom lip of the handhole shall be located on the shaft between 30"-36" from the baseplate. The handhole shall have a HINGED and Gasketed cover plate. The hinge shall provide adjustability to insure a weather-tight fit for the cover. On the frame side opposite the hinge, provide a mechanism on the handhole cover/frame to place the Department's standard padlock. The handhole cover shall be manufactured from 0.25 inch thick galvanized steel (ASTM 153) and have a neoprene rubber gasket that is permanently secured to the handhole frame to insure weather-tight protection.

POLE TOP TENON: The pole shall have a custom plate mounted adjustable tenon that allows the field modification of the arm/camera orientation up to 360 degrees. With this design, the DOT engineer can make slight orientation modifications to the camera mount to allow optimum viewing in case of future road development, change in terrain or a change in the viewing needs priority. The tenon shall have mounting holes and slot as required by the CLD manufacturer for the mounting of the camera-lowering system. The tenon shall be of dimensions necessary to facilitate camera lowering device component installation. The CLD mounting slot shall be parallel to the pole centerline for mounting the lowering device. There shall be a mounting slot for each required camera lowering device. Unless otherwise noted, when DUAL mount lowering devices, the mounting slots shall be 180 degrees apart.

CABLE SUPPORTS / Electrical Cable Guides and Parking Stand (Eyebolts): Top and bottom electrical cable guides shall be located within the pole aligned with each other as referenced in the drawings. One cable guide-strain relief ring shall be positioned 2 inches below the winch operation handhole and the other shall be positioned 1 inch directly below the top of tenon. A parking stand ring shall be welded directly to the center and inner portion of the upper handhole frame. Note drawings for applicable details.

BASE PLATE: Provide base plates that conform to ASTM A36 for grade 36 or ASTM 572 for grade 50.

Ensure transverse plates have a thickness ≥ 2 inches. Provide a base plate for the vertical pole that fits inside a 48 in diameter concrete base. Plates shall be integrally welded to the tubes with a telescopic welded joint or a full penetration butt weld with backup bar. Plates shall be hot dip galvanized per the requirements of the contract documents.

ANCHOR BOLTS: The anchor bolt design shall follow the NCHRP Report 494 Section 2.4 and NCHRP 469 Appendix A Specifications. Use anchor bolts that conform to the requirement of ASTM F 1554 grade 55 for hooked smooth bars or grade 105 for headed. Anchor bolts shall conform to AASHTO M 314 grade 55. Anchor bolts and all associated hardware shall be fully galvanized per ASTM A 153. . Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts. For anchor bolt design, pole forces shall be positioned in such a manner to maximize the force on any individual anchor bolt regardless of the actual anchor bolt orientation with the pole. There shall be two steel templates (one can be used for the headed part of the anchor bolt when designed in this manner) provided per pole. Templates shall be contained within a 26.5 inch diameter. All templates shall be fully galvanized (ASTM A 153). Anchor bolt lengths should be based on NCHRP Report 494 Section

2.4.5.5 using #8 bars for the foundation reinforcing steel. The headed anchor bolt assembly shall be contained within 26.5 inch diameter. Minimum edge distance for bolt holes shall follow Table J3.4 of AISC Steel Construction Manual. NCHRP Report 494:

http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_494.pdf

NCHRP Report 469:

http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_469-a.pdf

INSTALLATION POLE

POLE

Pole shall be installed in the correct orientation and plumb. Pole shall be grounded in accordance with the plans and specifications. Damaged galvanizing shall be repaired with a paint approved by the Engineer. The pole shall have a 3' L x 3' W x 4" D concrete pad installed for each door. Concrete for the pad is incidental to the cabinets. The Contractor shall grade and re-seed all disturbed areas to the satisfaction of the Engineer. This item includes the furnishing and installing of Fastrac bait bag in each pole for rodent control.

Pole shall be installed in the correct orientation and plumb. The anchor bolt orientation may be critical to provide the correct orientation. Authorized personnel shall be consulted to ensure the proper alignment of the anchor bolts and also consulted on the positioning of the lowering device arm. Pole shall be grounded in accordance with the plans and specifications found in this document and the project drawings. Damaged galvanizing shall be repaired with a paint or "cold galvanization" approved by the Engineer.

MEASUREMENT AND BASIS OF PAYMENT

Pole with Lowering Device will be measured for payment per unit each. The Department will make payment for complete, functioning, inspected, and accepted quantities. The Department will consider payment as full compensation for all work required under this section.

Section 6: WEB CAMERA ASSEMBLY (CCTV)

DESCRIPTION

Furnish and install Web Camera Assembly in accordance with the plans, specifications and Standard Drawings.

MATERIALS

The Web Camera Assembly shall be an Axis Network Dome Model P5655-E or approved equivalent. This item shall include the color camera, zoom lenses, environmental enclosure, pan/tilt unit, housing, dome, parapet mount, and all mounting hardware, power cable, connections, and incidentals necessary to complete the work.

Proposed alternates shall be commercially available. The Contractor shall identify an installed site where the proposed alternate Web Camera Assembly has been operating for a period of at least one year in a similar climate region.

INSTALLATION

Web Camera Assembly shall be installed on a steel strain pole as specified in the plans and in accordance with the manufacturer's instructions. Installation shall comply with all warranty provisions and warranty contract maintenance services. Installation shall comply with all local, state, and federal building, electrical and construction codes, and Motorola R-56 requirements. All wiring access to the Web Camera Assembly shall be through watertight fittings. Wiring access points shall be on the side or underneath components; no exposed top access is permitted. The Web Camera Assembly shall be installed so that the assembly is located on the side of the pole closest to the roadway when the camera is in its fixed position at the top of the pole. The contractor is responsible to verified all functions of the web camera through a laptop interface.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Web Camera Assembly will be measured for payment per unit each. The Department will make payment for complete, functioning, inspected, and accepted quantities. The Department will consider payment as full compensation for all work required under this section.

Section 7: RACK MOUNT UPS

DESCRIPTION

Furnish and install Uninterruptible Power Supply in accordance with the plans, specifications and Standard Drawings.

MATERIALS

The Uninterruptible Power Supply shall be provided emergency power to the load when the input power sources fails. The Uninterruptible Power Supply shall be APC UPS 1500VA USB RM 2U (networkable card AP9630) or approved equal. The Uninterruptible Power Supply shall be networkable and have the following technical specifications:

Output Power Capacity: 980 Watts/ 1440 VA

Nominal Output/Input voltage: 120 Volts

Efficiency at Full Load: 95%

Waveform Type: Sine Wave

Output/Input Connections: (6) NEMA 5-15R

Battery Type: Maintenance-free sealed Lead-Acid Battery with suspended electrolyte:leakproof

Interface Ports: DB-9 Rs 232, USB
Surge Energy Rating: 459 Joules
Filtering: Meets UL 1449
Mounting: shall be able to mount in 19" rack
Operating Environment: 0-40 degrees Celsius
Regulatory Approvals: CSA, FCC Part 15 Class A, UL 1778
Warranty: At least 3 year for repair or replace

Network card shall have the following:

Protocols: HTTP, HTTPS, IPv4, SMTP, SNMP v1, SNMP v3, SSH V1, SSH V2, SSL,
TCP/IP, Telnet
Network Interface Connections: RJ-45 10/100 Base-T
Regulatory Approvals: AS/NZS 3548 (C-Tick) Class A, EN 55022 Class A, En 55024, FCC
Part 15 Class A, GOST, ICES-003, VCCI Class A
Warranty: At least 3 year for repair or replace

INSTALLATION

Uninterruptible Power Supply shall be installed in 334/336 Cabinet as specified in the plans sheets. It shall be securely mounted the 19" frame which is included in supplied 334/336 cabinet. All cables, rack Mounting Brackets, Rack Mounting support rails shall be incidental to the item.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Uninterruptible Power Supply will be measured for payment per unit each. The Department will make payment for complete, functioning, inspected, and accepted quantities. The Department will consider payment as full compensation for all work required under this section.

Section 8: COMMUNICATIONS CABLE

DESCRIPTION

Furnish and install Communications Cable in accordance with the plans, specifications and Standard Drawings.

MATERIALS

Communications cable shall be General Cable GenSpeed 5000 CAT 5e Outside Plant Cable 8 wire PN: 5136100 or approved equal. The cable shall meet or exceed the following specifications:

Performance:

- ANSI/TIA/EIA 568B (Category 5e)
- MIL-C-24640A Water Penetration

- Propagation Delay: 583 ns @ 100 MHz
- Return Loss @ 100 MHz: 20.1 DB
- Frequency Range: 1-350 MHz

Physical characteristics:

- Nominal Outside Diameter: 0.230 in
- Insulation Type: Polyolefin
- Maximum Pulling Tension: 25 lbs
- Maximum DC Resistance: 9.38 Ohms/100m
- Mutual Capacitance @ 1kHz: 17 pF/100m
- Operating Temperature: -45° C to 80° C

All connectors, terminators, fittings, etc. shall be incidental to the cost of installing the Communications Cable and no separate payment will be made.

INSTALLATION

The Contractor shall install all cable and wire splice-free from the controller/service location to each cabinet, VMS sign, or CCTV camera the cable or wire is feeding. The Contractor shall not use excessive force when pulling wire through duct. The Contractor shall replace all wire damaged during installation. The Contractor shall submit to material testing at the discretion of the Engineer.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Communications Cable will be measured for payment per unit linear foot The Department will make payment for complete, functioning, inspected, and accepted quantities. The Department will consider payment as full compensation for all work required under this section.

**Section 9:
 CONDUIT**

DESCRIPTION

Furnish and install Conduit in accordance with the plans, specifications and Standard Drawings.

MATERIALS

Conduit shall be rigid steel, schedule 80 PVC, or flexible, non-metallic conduit as specified. This item includes fittings, connectors, clamps, caps and other materials necessary for proper installation. The Contractor shall submit to material testing at the discretion of the Engineer.

INSTALLATION

All conduit installed above ground or below ground under pavement shall be rigid steel. All conduits installed below ground, not under pavement shall be PVC. Flexible, non-metallic conduit shall be used as required and shall be incidental to the project. Unused conduits shall be capped on both ends. Conduit containing wire or cable shall be sealed with a piece of

steel wool and capped off with duct seal putty. All conduits shall be accessible inside junction boxes. All conduits shall have bushings included. If rigid steel conduit, the bushings shall be bonded together with other similar types of conduits.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Rigid Steel and PVC Conduit will be measured for payment per unit linear foot. The Department will make payment for complete, functioning, inspected, and accepted quantities. The Department will consider payment as full compensation for all work required under this section. A direct measurement will not be made for flexible, non-metallic conduit. All flexible, non-metallic conduits shall be incidental to the project.

Section 10:

ELECTRICAL SERVICE

DESCRIPTION

Furnish and install Electrical Service in accordance with the plans, specifications and Standard Drawings.

MATERIALS

The Contractor shall coordinate with the local power company to determine the exact materials for the service. This includes but is not limited to conduit, meter base, stainless steel disconnect, fused cutout, ground rod, wire, 35 foot wood pole, 2 anchors, connectors, fittings and all associated hardware required to construct the service.

The Contractor shall coordinate with the local power company (coordinate with TRIMARC representative) for the exact location of the service. This item also includes all electrical inspection and other fees required to provide electrical service.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Electrical Service will be measured for payment per unit each. The Department will make payment for complete, functioning, inspected, and accepted quantities. The Department will consider payment as full compensation for all work required under this section.

Section 11:

MODEL 334 AND 336 ENCLOSURES

DESCRIPTION

Furnish and install Enclosure in accordance with the plans, specifications and Standard Drawings.

MATERIALS

The two types of enclosures are Model 336 (36" H x 24" W x 22" D) and Model 334 (66" H x 24" W x 30" D). All enclosures shall be NEMA 3R rated/UL Listed. All components in the cabinet shall be designed according to the NEC 2017/UL Listed. The enclosures shall include:

all mounting accessories, access doors (minimum of two doors), ventilation, locking system, handles, door stops, rack assembly, light(s), shelves, drawer, and all required peripherals per the requirements of the contract documents and per the equipment submitted by the Contractor. **The contractor shall provide a cabinet, wiring, and all components that are approved as an assembly. This approved assembly shall be incidental to this item. Verification that the cabinet, wiring, and all components are an approved assembly shall be submitted to Central Office Traffic Operations. This shall be stamped by an electrical engineer that it is in compliance with the NEC 2017. The cabinet shall be UL508A.**

This item includes all excavation and any special equipment required to install the enclosure on a pole for a Model 336 enclosure or construct the concrete base for a Model 334 enclosure.

The Contractor shall provide a terminal facility harness by means of mating "MS" type connectors for interconnections of the field equipment specified. All cabinets of the same type shall be identical in size, shape and quality. In addition, the cabinets shall be equipped internally as specified herein and as required to suit the specific equipment specified on the plans.

Cabinets shall be of welded construction, using 0.125" minimum thickness 5052H32 or equivalent sheet aluminum. The equipment design shall utilize the latest available techniques, minimum number of different parts, subassemblies, circuits, cards and/or modules to maximize standardization and commonality.

Cabinets shall be provided with fully wired back and side panels with all necessary terminal boards, wiring harnesses, connectors and attachment hardware. All equipment shall be shelf or 19" rack mounted. Terminals and panel facilities shall be installed on the lower portion of the cabinet walls below all shelves.

Each field cabinet shall, at a minimum, be supplied with the following:

- Fan and Thermostat
- Left Side Power Distribution Panel
- Air Filter
- Adjustable Shelves (1-4 as needed for equipment submitted by the Contractor)
- Back Panel
- Right Side Panel
- Locking System
- Ground Bus (2)
- Terminal Blocks
- Duplex power outlet (weather resist)
- Surge Protector (See spec in surge section)
- Drawer that slides out for supporting a laptop computer
- All necessary installation and mounting hardware

All external screws, nuts and locking washers shall be stainless steel; no self-tapping screws are permitted unless specifically approved by the Engineer. All screws, nuts and locking washers used internally shall be manufactured from corrosion resistant materials.

All parts of the cabinet shall be cleaned, smoothed and free from flaws, cracks, dents and other imperfections. The cabinet shall be rigidly constructed to provide vibration free operation of the field equipment when installed. The cabinets shall be dust and rain tight and capable of maintaining a dry internal condition when subject to rain and wind gusts.

All components shall be made of corrosion resistant materials such as plastic, stainless steel, aluminum or brass; or shall be treated with corrosion resistance such as cadmium plating or galvanizing. All materials shall be resistant to fungus growth and moisture deterioration.

Individual cabinet components shall be pre-assembled upon installation in the cabinet such that the components can be easily replaced in the field. Modules of unlike function shall be mechanically keyed to prevent insertion into the wrong socket or connector.

Panels shall be designed to mount in the cabinet on mounting studs. It shall not be necessary to remove the panel to replace any panel-mounted equipment. The panels shall be capable of supporting specified equipment mounted on the panel. A lower input termination panel shall be provided to terminate all input field wires.

Electronic components shall meet the requirements contained herein and shall, at a minimum, comply with EIA Specifications. No component shall be of such design, fabrication, nomenclature or other identification as to preclude the purchase of said component from a wholesale electronics distributor or from the component manufacturer.

Components shall be down-rated by 50 percent with regard to ambient temperature, applied voltage, and power dissipation. All circuits shall be designed for reliability and maximum performance.

The design life of all components, under continuous operating conditions in their circuit application, shall be a minimum of ten years.

Each component shall meet all of its specified performance requirements when the input power is AC, 60 Hz, single phase, 120 volts +/- 20 volts. The equipment shall be designed such that the failure of a particular piece of equipment will not cause the failure of any other.

The cabinets shall be furnished with a power distribution panel mounted on the lower left hand inside wall when facing the front of the cabinet. This panel shall include a 115 VAC, convenience, dual outlet with integral ground fault interrupt protected by a circuit breaker. The left panel shall have:

- Circuit Breaker(s)
- Radio Interference Suppressor
- Power Cable Input and Junction Terminals

Circuit breakers shall be approved and listed by UL. Each cabinet shall have, at a minimum, a circuit breaker to protect the lamp, vent fan, and dual outlet. In addition, a properly rated equipment circuit breaker(s) shall be provided for the equipment shown on the plans. At each cabinet that houses VMS control equipment, a 220 VAC circuit breaker, sized to suit the cables that provide power to the VMS pixels shall be furnished and installed. Breakers shall have a minimum interrupt capacity of 50 amperes.

Each cabinet shall be equipped with a radio interference suppressor installed at the circuit breaker. The suppressor shall provide a minimum attenuation of 50 dB over a frequency range

of 200 kHz to 75 MHz. The suppressor shall be hermetically sealed in a case filled with a suitable insulation compound.

The suppressor terminals shall be nickel-plated, with brass studs of sufficient external length to provide space for connection of two appropriately sized conductors and shall be mounted such that the terminals cannot be turned in the case. The suppressors shall be designed for operation at the proper current ampere rating as determined by the Contractor per the equipment specified on the plans and shall be approved by UL and EIA.

Power distribution blocks suitable for use as a power feed and junction points shall be furnished and installed for two and three wire circuits. The line side of each circuit shall be capable of handling the specified number of and size of all wires.

Each cabinet shall include a fully wired equipment panel mounted on the lower rear inside of the wall of the cabinet. The back panel shall be utilized to distribute and properly interconnect all cabinet wiring related to the specific equipment. Each piece of equipment specified shall have its cable harness properly connected at terminal boards on the back panel. All functions available at the equipment connector shall be carried in the connector cable harness to a terminal board point on the back panel.

Wiring shall be provided for the equipment specified. All cabinet wiring, where connected to terminal strips, switches, radio interference suppressor, etc., shall be identified by the use of insulated pre-printed sleeving (wire markers) slipped over the wire before attachment of the lug or terminating the connection. The wire markers shall have a text label with sufficient detail so that a translating sheet is not required.

All wires shall be cut to the proper length before assembly. No wires shall be doubled back to take up slack. Wires shall be neatly secured with nylon lacing or cable ties. Cables shall be secured with nylon cable clamps.

The grounded side of the electric service shall be carried throughout the cabinet to the ground bus without a break.

All electrical connections in the cabinet shall have sufficient clearance between each terminal and the cabinet to prevent a leakage path or physical contact under stress. Where these distances cannot be maintained, barriers must be provided. All equipment grounds shall run directly and independently to the ground bus. The lay of the interconnect cable between the components must be such that when the door is closed, it does not press against the cables or force the cables against the various components inside the cabinet. Sufficient length of cable harnesses shall be provided to easily reach the electronic equipment placed anywhere on the shelves.

All wiring containing line voltage AC shall be routed and bundled separately and/or shielded from all low voltage (i.e. control) circuits. All conductors and live terminals or parts, which could be hazardous to maintenance personnel, shall be covered with suitable insulating materials.

All conductors used in the cabinet wiring shall be 22 AWG or larger with a minimum of 19 strands. The insulation shall have a minimum thickness of 10 MILS. All wiring containing line voltage shall be 14 AWG or larger.

The AC+, AC-, and equipment ground wiring shall be electrically isolated from the other by an insulation resistance of at least 10 Megohms when measured at 250 VAC. Return and equipment grounding wiring shall be color-coded white and green respectively.

Terminal blocks located on the panels shall be accessible such that it shall not be necessary to remove the electronic equipment from the cabinet to make a connection or perform an inspection.

Terminal blocks shall be two-position, multiple-pole, and barrier type. Shorting bars, along with integral marking strip, shall be provided. Terminal blocks shall be arranged such that they do not impede the entrance, training, or connection of incoming field conductors. All terminals shall be identified by legends permanently attached to the terminal blocks. Not more than three conductors shall be brought to any one terminal screw. No electrically live parts shall extend beyond the protection afforded by the barriers. All terminal blocks shall be located below the shelves.

AC terminal blocks shall be Underwriter's Laboratory approved for 600 volts AC minimum and shall be suitable for outdoor use. Terminals used for field connections or interwiring connections shall secure conductors by means of a nickel or cadmium plated brass binder head screw.

All connections to and from the electronic equipment shall terminate at an interwiring block. These blocks shall act as intermediate connection points for all electronic equipment inputs and outputs.

A varistor shall be installed across the thermostat used to control the fan to act as a surge and transient noise suppressor. The varistor shall be GE VI5OLAIOA, Stetron 250NRO7-1, Siemens SIOK150, or approved equal.

MOUNTING

Model 336 cabinets shall be pole mounted or mounted to an existing concrete wall as specified. Model 334 cabinets shall be mounted on a poured concrete base or on existing concrete surfaces as specified. All holes drilled into existing concrete surfaces shall penetrate the concrete no more than 4 inches unless otherwise approved by the Engineer. Bolts inserted into any concrete surface shall be properly secured and epoxied, per manufacturer's recommendations. Prefabricated fiberglass bases used in lieu of poured concrete bases must be approved by the Engineer. Cabinet installation shall conform to the details shown. All cabinets shall be furnished with stainless steel mounting plates, nuts, bolts, washers and all other necessary hardware to mount the cabinet as shown or described.

DOORS

All cabinets shall be provided with doors in the front and back. Doors shall have secure gaskets to prevent the entrance of dust and moisture. Doors shall be sized to encompass the full area of the cabinet opening. Doors shall be provided with two stop positions to hold the door open at 90 degrees and 135 degrees. The stops shall hold the door securely open until released manually.

The front door shall be hinged on the right-hand side by means of three butt hinges with 1/4" minimum stainless steel hinge pins.

VENTILATION

Cabinets shall be furnished with louvers properly designed to provide natural ventilation to the interior. The louver area shall be of sufficient size to permit the free flow of air corresponding to the rated capacity of the associated cabinet fan. A pleated media fiber filter shall be provided and shall cover all louvers.

Cabinets shall be furnished with an electric, thermostatically-controlled ventilation fan or fans mounted in the cabinet. The fan(s) shall have a rated capacity of at least 200 cubic feet per minute. The fan and cabinet ventilation louvers shall be located with respect to each other so as to direct the bulk of the air flow throughout the entire cabinet and, in particular, over the field equipment units. The thermostat shall be adjustable to turn on between 90 degrees and 120 degrees Fahrenheit.

LOCKING SYSTEM

Each door shall be furnished with a 3-point positive locking system. The lock for the door shall be a self-locking, heavy-duty, five-pin tumbler cylinder rim type. The handles shall be made of stainless steel and shall be provided with a padlock feature. Locks shall be keyed identically to Corbin #2. Two keys shall be provided for each cabinet.

LIGHT

A fluorescent light shall be provided in front for all cabinets and also in the back for Model 334 cabinets. A panel mounted 40-Watt weatherproof incandescent lamp with an on-off switch shall be positioned to provide light to the face of the equipment installed in the cabinet.

SHELF/DRAWER/RACK

A removable 19" EIA rack shall be provided for mounting sub-assemblies in Model 334 cabinet. Adjustable shelves shall be provided to hold the equipment. Vertical shelf adjustment intervals shall be 2" maximum. The shelves shall be positioned from the top of the cabinet in accordance with the actual equipment configuration of the particular cabinet. All devices/sub-assemblies shall be mounted on the rack if possible. Otherwise, they shall be placed on the shelves.

A sliding drawer shall be provided in each cabinet. The drawer shall be installed below the shelves in a suitable position for placement of a laptop computer. The drawer shall have a nominal depth of 1" and a hinged lid.

LABELING

The letters "KYTC ITS" shall be permanently displayed along the top of each door on the outside of each cabinet. The letters shall be a minimum of 1" tall. The letters shall be die-cut or engraved into the metal before galvanizing and shall be readable after galvanizing. All excess galvanizing shall be brushed off. The location and description of the label must be shown on the shop plan submittal for the cabinets. Stenciling with paint or other markers is not permitted. If required information is placed on a steel plate, the plate must match the surface profile of the cabinet. The plate must then be welded completely around the plate before galvanizing.

SPECIAL NOTE FOR THE DISCONNECT/Cabinet:

Only connect one side of the 120 volt in the disconnect at the camera only location. The other side of the 120 Volt shall still be install in meter, but not feed down to the disconnect.

Furnish a shock hazard warning sticker on

Disconnect with the following information:

Voltage (120 volt)

Glove class (0)

Limited approach boundary (42 in)

Restricted approach boundary (contact)
See nfpa 70e for additional ppe required

QUALITY ASSURANCE PROVISIONS

The following water spray test shall be performed on each empty cabinet: Water shall be sprayed from a point directly overhead at an angle of 60° from the vertical axis of the cabinet. This procedure shall be repeated for each of eight equally spaced positions around the cabinet for a period of not less than five minutes in each position. The water shall be sprayed using a domestic type-sprinkling nozzle at a rate of not less than one gallon per minute per square foot of the cabinet's surface area. The cabinet shall then be inspected for leakage. Evidence of water leakage shall be cause for rejection.

A manufacturer's certification of successful completion of the water spray test and that the cabinet conforms to these specifications shall be the basis of acceptance of the cabinet. Separate submission of test cabinets shall not be required.

MAINTENANCE

All components and assemblies shall be clearly identified with name, model number, serial number and any other pertinent information required to facilitate equipment maintenance.

All equipment shall be designed for ease of installation and maintenance. Location, accessibility, serviceability and features that will lead to simplified maintenance shall be a prime consideration. All component parts shall be readily accessible for inspection and maintenance. The only tools and test instruments required by maintenance personnel shall be simple hand tools and basic meters.

After the wiring is complete, all conduit penetrations into the cabinets shall be sealed in such a manner as to prevent rodents and insects from entering the cabinet. The conduit sealants and insect traps used shall be approved by the Engineer prior to installation.

DOCUMENTATION

Each field cabinet shall be supplied with three copies of the final cabinet wiring diagram. One copy shall be placed in a clear plastic envelope and left in the cabinet drawer. Two sets of Mylar plans shall be delivered to the Engineer.

INSTALLATION

Model 334/336 enclosure shall be installed in accordance with the plans and specifications. The Contractor shall stake all proposed enclosure locations and shall obtain approval of staked locations before excavation. A representative from the KYTC Division of Traffic Operations, Design Services Branch or the Traffic Engineer, District 1, TRIMARC representatives will approve locations for all field devices. The Contractor shall have all utilities marked in the field prior to requesting approval. The Contractor shall allow two weeks to schedule this location approval with KYTC. KYTC approval of field device locations does not relieve the contractor from his responsibility to repair any damage incurred during construction. Enclosures located behind guardrail shall have minimum 5 foot spacing from edge of pole to face of guardrail. Otherwise, enclosures shall be located as specified on the plan sheets or a minimum of 30' from all driving lanes. All materials shall be installed in a neat and professional manner. All pole mount cabinets shall be mounted approximately 42" from the ground. All 336 pole mounted cabinets shall a 3' L x3' W x4" D concrete pad install for each door. Concrete for the pad is incidental to the cabinets. The Contractor shall grade and re-seed all disturbed areas to the satisfaction of the Engineer. This item includes the furnishing and installing of Fastrac bait bag in each cabinet for rodent control.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Model 334/336 Enclosure will be measured for payment per unit each. The Department will make payment for complete, functioning, inspected, and accepted quantities. The Department will consider payment as full compensation for all work required under this section.

Section 12: JUNCTION BOX

DESCRIPTION

Furnish and install Junction Box in accordance with the plans, specifications and Standard Drawings.

MATERIALS

Junction box shall meet or exceed ANSI/SCTE 77-2002, tier 15. Junction box covers shall be marked "ITS." Covers shall be attached with a minimum of two 3/8" stainless steel hex bolts.

INSTALLATION

Where required, junction box shall be oriented such that the dimensions comply with the NEC. Junction boxes used as pull boxes along a conduit run shall be spaced at a maximum of 250'. Junction boxes shall not be placed in ditch lines or in areas where standing water may accumulate. Junction box covers shall be flush with the finished surface. The Contractor shall restore all disturbed areas to the satisfaction of the Engineer. This item includes the furnishing and installing of Fastrac bait bag in each junction box for rodent control.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Junction Box will be measured for payment per unit each. The Department will make payment for complete, functioning, inspected, and accepted quantities. The Department will consider payment as full compensation for all work required under this section.

Section 13:

SURGE DEVICES

DESCRIPTION

Furnish and install video surge device, data surge device, power surge device, and RF surge device in accordance with the plans, specifications and Standard Drawings.

MATERIALS

GENERAL

Each surge device shall be compatible with the equipment it is protecting. Each surge device shall include cables, connectors, power supplies, and all incidentals required for operation.

VIDEO SIGNAL COAX CONDUCTOR SURGE DEVICE

Video Signal Coax Conductor Surge Device shall be EDCO CX12-BNC-Y or approved equal. This surge protector shall:

- Have a clamping voltage response time of less than one nanosecond
- Have a maximum clamping voltage of 12 volts when subjected to a 3 kA, 8x20 microsecond wave
- Have a peak surge current of 20kA with 8x20 microsecond wave
- Have BNC connectors
- Pass signals from DC to 80 MHz with less than 3 dB insertion losses
- Be UL 497B listed

DATA SIGNAL CONDUCTOR SURGE DEVICE

Data Signal Conductor Surge Device shall be for RS 422 and RS 485 Communication conductors shall be EDCO PC642C-015 or approved equal. This surge protector shall:

- Have a clamping voltage response time of less than one nanosecond
- Have a maximum clamping voltage of 12 volts when subjected to a 1 kA 8x20 microsecond wave

- Have a peak surge current per wire of 10 kA with 8x20 microsecond wave
- Have a maximum inline resistance of 6 ohms
- Have a maximum attenuation of -3db at 50MHz

RS 232 COMMUNICATION DATA SIGNAL CONDUCTOR SURGE DEVICE

Data Signal Conductor Surge Device for RS 232 Communication conductors shall be EDCO PC642C-015 or approved equal. This surge protector shall:

- Have a clamping voltage response time of less than one nanosecond
- Have a maximum clamping voltage of 30 volts when subjected to a 1 kA 8x20 microsecond wave
- Have a peak surge current per wire of 3kA with 8x20 microsecond wave
- Have a maximum inline resistance of 6 ohms
- Have a maximum attenuation of -3 db at 0.5 MHz

100 BASE-T AND 10 BASE-T COMMUNICATION DATA SIGNAL CONDUCTOR SURGE DEVICE

Data Signal Conductor Surge Device for 100BaseT and 10BaseT Communication conductors shall be EDCO LCDP-30 or approved equal. This surge protector shall:

- Have a clamping voltage response time of less than one nanosecond
- Have a maximum clamping voltage of 30 volts when subjected to a 0.5 kA 8x20 microsecond wave
- Have a peak surge current per wire shall be 1kA with 8x20 microsecond wave
- Have a maximum attenuation shall be -3db at 100 MHz
- Have a N.E.X.T. worst pair of better than -40 db at 100 MHz
- Have a maximum attenuation of -3db at 0.5 MHz

POWER CONDUCTOR SURGE DEVICE

Conductor Surge Device for power carrying conductors shall be UL Listed Commercial rated. This surge protector shall meet or exceed the following specifications:

- Nominal Line Voltage 120 V
- Peak Current 20,000 Amps
- Clamp Voltage 280 volt typical @ 20kA
- Response time <5ns
- Continuous Service Current 10 Amps max. 120 VAC, 60 Hz

RF ANTENNA COAX CONDUCTOR SURGE DEVICE

RF Antenna Coax Conductor Surge Devices shall meet all manufacturer recommendations for the particular use of the radio antenna coax conductors.

INSTALLATION

The Contractor shall supply surge devices in model 334/336 enclosures, VMS signs, on poles, and on sign trusses as specified on layout sheets. Surge devices shall be located in said equipment such that they are easily accessible for maintenance activities.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Surge Device will be measured for payment per unit each. The Department will make payment for complete, functioning, inspected, and accepted quantities. The Department will consider payment as full compensation for all work required under this section.

Section 14: TRENCHING AND BACKFILLING

DESCRIPTION

Trenching and Backfilling shall be performed in accordance with the plans, specifications and Standard Drawings.

MATERIALS

All trenches shall be marked with underground utility warning tape.

INSTALLATION

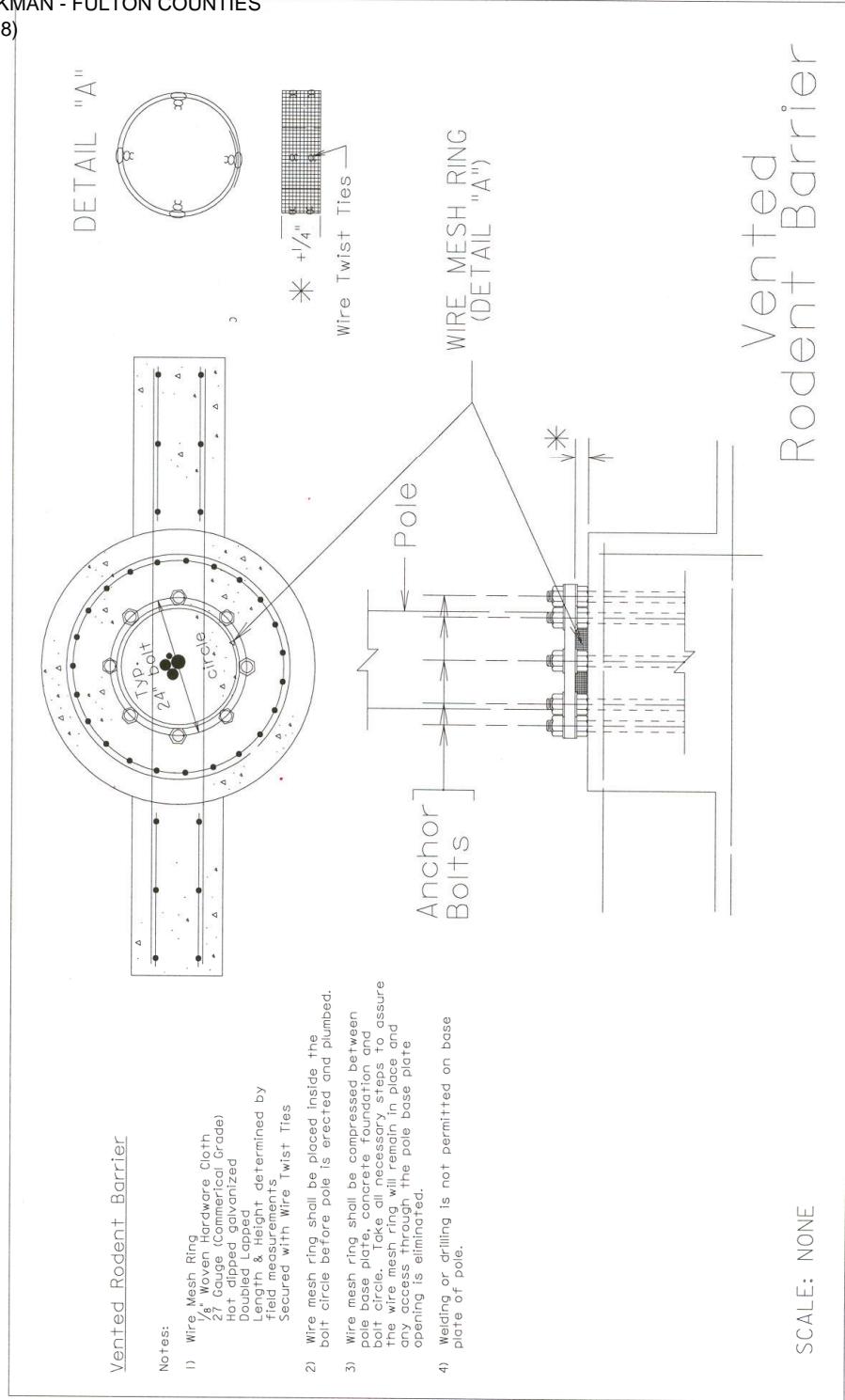
The Contractor shall be responsible for locating all underground utilities prior to excavation. The Contractor shall excavate the trench, place warning tape above the conduit, backfill the trench and restore all disturbed areas to the satisfaction of the Engineer. Backfill material shall be placed and compacted in lifts of 9 inches or less.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Trenching and Backfilling will be measured for payment per unit linear foot. The Department will make payment for complete, inspected, and accepted quantities. The Department will consider payment as full compensation for all work required under this section.

Section 15: Vented Rodent Barrier Detail

Vented rodent barrier – Prior to erecting tubular structures and poles on concrete foundations formed with conduit sweeps, a double lapped ring barrier of standard commercial grade 27 gauge hot dipped galvanized 1/8 inch woven wire mesh shall be placed inside the foundations bolt circle. The height of the wire mesh ring barrier shall be from the concrete foundation to the top of the leveling nuts and washers plus 1/4 inch. The Contractor shall take all necessary steps to assure the wire mesh ring will remain in place to eliminate any access through the base plate opening of the tubular structure or pole when erected and plumbed. The Contractor shall not weld or drill to the base plate of the pole. Optional vented rodent barrier designs and materials may be used when approved by the Engineer and at no additional cost to the Department.



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Section 16: GLOSSARY

The following acronyms, abbreviations, and definitions shall govern this specification:

- AASHTO – American Association of State Highway and Transportation Officials
- ABS - Acrylonitrile Butadiene Styrene
- AC – Alternating Current
- AlInGaP – Aluminum Indium Gallium Phosphide (refers to the chemical composition of an LED).

- ANSI – American National Standards Institute
- ASCII – American Standard Code for Information Interchange
- ASN.1 – Abstract Syntax Notation 1
- ASTM – American Society for Testing and Materials
- AWG - American Wire Gauge
- AWS – American Welding Society
- BCD – Binary Coded Decimal
- B frames – Bi-directional Predicted Frames
- BGP – Border Gateway Protocol
- Bin – Group of LEDs categorized and sorted by intensity or color. Each bin has upper and lower intensity or color specifications and contains only LEDs that are measured to be within that range. LED manufacturers sort LEDs into bins to ensure consistent intensity and color properties.
- BOOTP – Bootstrap Protocol
- CALTRANS – California Department of Transportation
- CAN – Control Area Network
- CCTV – Closed Circuit Television
- CDPD – Cellular Digital Packet Data
- CLI – Command Line Interface
- CNC – Computer Network Control
- Control Computer – A desktop or laptop computer used in conjunction with VMS control software to communicate with VMS sign controllers. The control computer can instruct a VMS sign controller to program and control the VMS, monitor VMS status, and run VMS diagnostic tests. A control computer can be used for remote control of one or more VMS, as well as for local control of a single VMS
- DC – Direct Current
- DHCP – Dynamic Host Configuration Protocol
- DMS – Dynamic Message Sign. Synonymous and interchangeable with Variable Message Sign (VMS). An industry term that applies to various types of variable or changeable message sign technology
- DVI-D – Digital Visual Interface - Digital
- EIA – Electronic Industries Association
- ELFEXT – Equal Level Far End Crosstalk
- EPA – Effective Projected Area
- FCC – Federal Communications Commission
- FDA – Food and Drug Administration
- Font – The style and shape of alphanumeric characters that are displayed on the VMS matrix to create messages viewed by motorists and travelers
- Frame – see *Page*
- FSORS – Full, Standardized Object Range Support – an NTCIP term. See the NTCIP standards for additional information.
- GUI – Graphical User Interface
- HDPE – High Density Polyethylene

- HHR – Half Horizontal Resolution
- HTTP – Hypertext Transfer Protocol
- IEEE – Institute of Electrical and Electronic Engineers
- I frames – Intra-frames
- IC – Integrated Circuit
- IGMP
- InGaAlP – Indium Gallium Aluminum Phosphide
- I/O – Input/Output
- IP – Internet Protocol – in transceivers
- IRE – Institute of Radio Engineers
- ISO – International Organization for Standardization
- ITE – Institute of Transportation Engineers
- ITS – Intelligent Transportation System
- Kbps – Kilobits per second
- KYTC – Kentucky Transportation Cabinet – May also be referred to as the or The Department in this document.
- LAN – Local Area Network
- LCD – Liquid Crystal Display
- LED – Light Emitting Diode
- MDPE – Medium Density Polyethylene
- Message – Information displayed on the VMS for the purpose of visually communicating with motorists. A VMS message can consist of one or more pages of data that are displayed consecutively
- MIB – Management Information Base
- Module – Assembly consisting of a two-dimensional LED pixel array, pixel drive circuitry, and mounting hardware. Modules are installed in the display adjacent to each other to form the display matrix.
- MTBF – Mean Time Between Failures
- MPEG – Moving Picture Experts Group
- NEC – National Electrical Code
- NEMA – National Electrical Manufacturers Association
- NESC – National Electrical Safety Code
- NEXT – Near End Crosstalk
- NCHRP – National Cooperative Highway Research Program
- NRZ – Non Return to Zero
- NRZI – Non Return to Zero Inverted
- NTCIP – National Transportation Communications for ITS Protocol
- NTSC - National Transmission Standards Committee
- Object – An NTCIP term referring to an element of data in an NTCIP-compatible device that can be manipulated to control or monitor the device.
- OER – Octet Encoding Rules
- OSHA – Occupational Safety and Health Administration

- OTDR – Optical Time Domain Reflectometer
- Page – An NTCIP term referring to the data that is displayed on the VMS display matrix at a given moment in time. Also referred to as a frame.
- P frames – Forward Predicted Frames
- PCB – Printed Circuit Board
- Pixel – Picture element. The smallest changeable (programmable) portion of a VMS display matrix
- PMPP – Point to Multi-Point Protocol
- PPP – Point to Point Protocol
- PSELFEXT – Power Sum Equal Level Far End Cross Talk
- PSNEXT – Power Sum Near End Crosstalk
- PTZ – Pan/Tilt/Zoom
- PVC – Polyvinyl Chloride
- PWM – Pulse Width Modulation
- QSIF – Quarter Source Input Format
- RAM – Random Access Memory
- RARP – Reverse Address Resolution Protocol
- RGB – Red-Green-Blue
- Schedule – A set of data that determines the time and date when a VMS sign controller will cause a stored message to be displayed on the VMS
- SDRAM – Synchronous Dynamic Random Access Memory
- SIF – Source Input Format
- SNMP – Simple Network Management Protocol
- STMP – Simple Transportation Management Framework
- Stroke – Refers to the vertical and horizontal width of the lines and curves of a display font. Single stroke denotes character segments that are one pixel wide. Double stroke denotes character segments that are two pixels wide.
- TFTP – Trivial File Transfer Protocol
- TIA - Telecommunications Industry Association
- TMA – Truck Mounted Attenuator
- TOC – Traffic Operations Center
- UL – Underwriters Laboratories
- UPS – Uninterruptible Power Supply
- USB – Universal Serial Bus
- VLAN – Virtual Local Area Network
- VMS – Variable Message Sign. Synonymous with DMS. A type of VMS that is fully programmable such that the content of its messages are fully changeable remotely and electronically.
- VMS Controller – A stand-alone computer that is located at a VMS site, which controls up to 8 VMS or LCS units. A sign controller receives commands from and sends information to a control computer
- WAN – Wide Area Network
- WYSIWYG – What You See Is What You Get. More specifically, what you see on

the VMS control computer monitor is a scaled representation of how a message will appear when it is being displayed on the VMS. Similarly, after a pixel diagnostic test routine has been run, what you see on the control computer monitor is a scaled representation of the functional status of each pixel in the VMS display matrix.

SPECIAL NOTE

For Tree Removal

**Fulton/Graves/Hickman County
IMPROVE THE PURCHASE PARKWAY FROM
SOUTHWEST OF THE US-51 INTERCHANGE TO
CARDINAL ROAD NEAR MAYFIELD INCLUDING THE
KY-339 INTERCHANGE IN WINGO, KY.
Item No. 01-26**

**NO CLEARING OF TREES 5 INCHES OR GREATER (DIAMETER BREAST
HEIGHT) FROM JUNE 1 THROUGH JULY 31.**

**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 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.

3.6 AASHTO Nominal Diameters and Maximum Deflection Limits.

Base Pipe Diameter (inches)	AASHTO Nominal Diameter (inches)	Max. Deflection Limit	
		5.0%	10.0%
		(inches)	
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

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:

$$\% \text{ Deflection} = [(AASHTO \text{ Nominal Diameter} - D2) / AASHTO \text{ Nominal Diameter}] \times 100\%$$

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:

$$\% \text{ Deflection} = [(D1 - D2) / D1] (100\%)$$

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:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24814EC	Pipeline Inspection	Linear Foot
10065NS	Pipe Deflection Deduction	Dollars

SPECIAL NOTE FOR EXPERIMENTAL KYCT AND HAMBURG TESTING

1.0 General

1.1 Description. The KYCT (Kentucky Method for Cracking Test) and the Hamburg 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 of the bituminous mixes. Additionally, the data will help the Department to create future performance-based specifications which will include the KYCT and Hamburg test methods.

2.0 Equipment

2.1 KYCT Testing Equipment. The Department will require a Marshall Test Press with digital recordation 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 Hamburg Wheel Track Testing. The department encourages the use of the PTI APA/Hamburg Jr. test equipment to perform the loaded wheel testing. The Department will allow different equipment for the Hamburg testing, but the testing device must be approved by the Department prior to testing.

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. Hamburg test specimens will be submitted to the Division of Materials for testing on the PTI APA/Hamburg Jr if the asphalt contractor or district materials office does not have an approved Hamburg testing device.

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 mix design phase and during the plant production of all surface mixtures. For mix design approvals, submit KYCT results on the Department MixPack. For Class 4 mixtures, submit ingredient materials to the Division of Materials for verification.

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 immediately after, fabricate the KYCT samples with the gyratory compactor in accordance with Section 2.4 of this Special Note. Analysis of the KYCT specimens and gradation will be required one per subplot 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 a minimum of 3 and up to 6 test specimens. The specimens shall be compacted at the temperature in accordance with KM 64-411. KYCT mix design specimens shall be short-term conditioned uncovered for four hours at compaction 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. Additionally, fabricated specimens shall be allowed to cool in air (fan is permissible) for 30 minutes +/- 5 minutes and conditioned 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 Hamburg testing, reheating of the asphalt mixture is prohibited.

3.2.3 Record Times. For each subplot, 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.

3.2.4 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 Hamburg Testing. Perform the rut resistance analysis (Hamburg) in accordance with AASTHO T-324, not to exceed 20,000 passes for all bituminous mixtures during the mix design phase and production. For mix design approvals, submit Hamburg results on the Department MixPack. For Class 4 mixtures, submit ingredient materials to the Division of Materials for informational verification.

3.3.1 Hamburg Testing Frequency. Perform testing and analysis per lot of material. The plant produced bituminous material sampled for the Hamburg test does not have to be obtained at the same time as the acceptance and KYCT sample. If the Hamburg 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 Hamburg specimens.

3.3.2 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 and the time the Hamburg testing was started. All times shall be recorded on the AMAW.

3.3.3 File Name. Save the Excel spreadsheet with the following file name; “Hamburg_CID_Approved Mix Number_Lot Number_Sublot Number_Date” and upload the file into the AMAW.

4.0 Data

Submit the AMAW and all test data that was obtained for acceptance, gradation, KYCT, and Hamburg 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 Hamburg specimens shall be considered incidental to the asphalt surface line item. The Department will perform the testing for the KYCT and Hamburg specimens if a producer does not possess the proper equipment.

June 15th, 2022

	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		

<input checked="" type="checkbox"/>	Original	<input type="checkbox"/>	Re-Certification	RIGHT OF WAY CERTIFICATION			
ITEM #		COUNTY		PROJECT # (STATE)		PROJECT # (FEDERAL)	
01-0026.00		Fulton		12F0 FD52 038 8883201R		NHPP 0011 (038)	
PROJECT DESCRIPTION							

Reconstruction of the KY 339 Interchange.

No Additional Right of Way Required

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

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

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

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

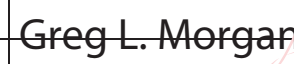
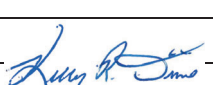
The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained,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

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

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

Total Number of Parcels on Project	12	EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Number of Parcels That Have Been Acquired			
Signed Deed	12		
Condemnation			
Signed ROE			

Notes/ Comments (Use Additional Sheet if necessary)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Greg L. Morgan
Signature		Signature	 Digitally signed by Greg L. Morgan Date: 2022.04.12 13:31:00 -05'00'
Date		Date	
Right of Way Director		FHWA	
Printed Name		Printed Name	
Signature	 Digitally signed by Kelly R. Divine Date: 2022.04.13 08:05:05 -05'00'	Signature	No Signature Required as per FHWA-KYTC Current Stewardship Agreement
Date		Date	



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

<input checked="" type="checkbox"/>	Original	<input type="checkbox"/>	Re-Certification	RIGHT OF WAY CERTIFICATION
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ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
01-0026.01	GRAVES	12F0 FD52 042 8883201R	NHPP 0011 (038)

PROJECT DESCRIPTION

RECONSTRUCT INTERCHANGE ON KY 339 AND PURCHASE PARKWAY.

No Additional Right of Way Required

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

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

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

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

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

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

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

Total Number of Parcels on Project	5	EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Number of Parcels That Have Been Acquired			
Signed Deed	5		
Condemnation			
Signed ROE			

Notes/ Comments (Text is limited. Use additional sheet if necessary.)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Greg L. Morgan
Signature		Signature	Greg L. Morgan <small>Digitally signed by Greg L. Morgan Date: 2022.07.01 09:50:09 -05'00'</small>
Date		Date	
Right of Way Director		FHWA	
Printed Name		Printed Name	
Signature	Kelly Divine <small>Digitally signed by Kelly Divine Date: 2022.07.01 17:25:44 -05'00'</small>	Signature	No Signature Required as per FHWA-KYTC Current Stewardship Agreement
Date		Date	

UTILITIES AND RAIL CERTIFICATION NOTE

**Fulton , Hickman, GravesCounty
ONHPP0011038
FD52 038 8883201U
IMPROVE THE PURCHASE PARKWAY FROM SOUTHWEST OF THE US-51 INTERCHANGE TO CARDINAL
ROAD NEAR MAYFIELD INCLUDING THE KY-339 INTERCHANGE IN WINGO, KY. (I-69 CORRIDOR
IMPROVEMENT) (2022CCR)
ITEM NUMBER: 01-26.00**

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 will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs. The utility facilities as noted in the previous section(s) have been determined using data garnered by varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities defined may not be inclusive of all utilities in the project scope and are not Level A quality, unless specified as such. It is the contractor's responsibility to verify all utilities and their respective locations before excavating.

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.

UTILITIES AND RAIL CERTIFICATION NOTE

**Fulton , Hickman, GravesCounty
ONHPP0011038
FD52 038 8883201U
IMPROVE THE PURCHASE PARKWAY FROM SOUTHWEST OF THE US-51 INTERCHANGE TO CARDINAL
ROAD NEAR MAYFIELD INCLUDING THE KY-339 INTERCHANGE IN WINGO, KY. (I-69 CORRIDOR
IMPROVEMENT) (2022CCR)
ITEM NUMBER: 01-26.00**

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

Atmos Energy Corporation - Natural Gas
AT&T - Communication
Graves County Water District - Water
City of Fulton - Water
West Kentucky RECC - Electric
Fulton Electric - Electric
West Kentucky & Tennessee Telecommunications Coop - Communication
Charter Communications Holdings, LLC dba Spectrum - CATV

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

**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**

AT&T – Relocate copper and fiber along the west side of the interchange.
WKRECC – Relocate one pole on Sawmill Dr.
WK&T – Relocate fiber along the southwest side of the interchange, and bore under Parkway to eliminate overhead crossing south of interchange.

UTILITIES AND RAIL CERTIFICATION NOTE

Fulton , Hickman, GravesCounty
ONHPP0011038
FD52 038 8883201U
IMPROVE THE PURCHASE PARKWAY FROM SOUTHWEST OF THE US-51 INTERCHANGE TO CARDINAL ROAD NEAR MAYFIELD INCLUDING THE KY-339 INTERCHANGE IN WINGO, KY. (I-69 CORRIDOR IMPROVEMENT) (2022CCR)
ITEM NUMBER: 01-26.00

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

AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact Name	Phone	Email
AT&T - Communication	810 Kentucky Avenue Paducah KY 42003	Alan Shelby	2704445048	as7168@att.com
Atmos Energy Corporation - Natural Gas	3034 Parker Street Paducah Ky 42003	Eddie Tucker	2704437235	ed.tucker@atmosenergy.com
Charter Communications Holdings, LLC dba Spectrum - CATV	906 South 12th Street Murray KY 42071	James Adams	2709785307	james.r.adams1@charter.com
City of Fulton - Water	200 Nolan Avenue Fulton KY 42041	Billy "Bubba" Nelms	2704722434	fultonpwwdir@live.com
Fulton Electric - Electric	501 Walnut Street Fulton KY 42041	David Moss	2704721362	fultonelectric@bellsouth.net

UTILITIES AND RAIL CERTIFICATION NOTE

Fulton , Hickman, GravesCounty
ONHPP0011038
FD52 038 8883201U
IMPROVE THE PURCHASE PARKWAY FROM SOUTHWEST OF THE US-51 INTERCHANGE TO CARDINAL ROAD NEAR MAYFIELD INCLUDING THE KY-339 INTERCHANGE IN WINGO, KY. (I-69 CORRIDOR IMPROVEMENT) (2022CCR)
ITEM NUMBER: 01-26.00

Graves County Water District - Water	C/O MEWS Mayfield Ky 42066	Kevin Leonard	2702474661	kleonard@mewsbb.com
West Kentucky & Tennessee Telecommunications Coop - Communication	WK&T Mayfield KY 42066	Tim Merrick	2707051816	tmerrick.wk@wk.net
West Kentucky RECC - Electric	1218 West Broadway Mayfield KY 42006	Milton Jones	2707051295	mjones@wkrecc.com

UTILITIES AND RAIL CERTIFICATION NOTE

Graves County
ONHPP0011038
FD52 038 8883201U
RECONSTRUCT THE INTERCHANGE AT KY 339 AND THE PURCHASE PARKWAY, Exit 14, WINGO
ITEM NUMBER: 01-26.01

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 will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs. The utility facilities as noted in the previous section(s) have been determined using data garnered by varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities defined may not be inclusive of all utilities in the project scope and are not Level A quality, unless specified as such. It is the contractor's responsibility to verify all utilities and their respective locations before excavating.

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.

UTILITIES AND RAIL CERTIFICATION NOTE

Graves County
ONHPP0011038
FD52 038 8883201U
RECONSTRUCT THE INTERCHANGE AT KY 339 AND THE PURCHASE PARKWAY, Exit 14, WINGO
ITEM NUMBER: 01-26.01

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

Atmos Energy Corporation - Natural Gas

AT&T - Communication

Graves County Water District - Water

City of Fulton - Water

West Kentucky RECC - Electric

Fulton Electric - Electric

West Kentucky & Tennessee Telecommunications Coop - Communication

Charter Communications Holdings, LLC dba Spectrum - CATV

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

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

UTILITIES AND RAIL CERTIFICATION NOTE

<p style="text-align: center;">Graves County ONHPP0011038 FD52 038 8883201U RECONSTRUCT THE INTERCHANGE AT KY 339 AND THE PURCHASE PARKWAY, Exit 14, WINGO ITEM NUMBER: 01-26.01</p>

Not Applicable

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

UTILITIES AND RAIL CERTIFICATION NOTE

Graves County
ONHPP0011038
FD52 038 8883201U
RECONSTRUCT THE INTERCHANGE AT KY 339 AND THE PURCHASE PARKWAY, Exit 14, WINGO
ITEM NUMBER: 01-26.01

AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact Name	Phone	Email
AT&T - Communication	810 Kentucky Avenue Paducah KY 42003	Alan Shelby	2704445048	as7168@att.com
Atmos Energy Corporation - Natural Gas	3034 Parker Street Paducah Ky 42003	Eddie Tucker	2704437235	ed.tucker@atmosenergy.com
Charter Communications Holdings, LLC dba Spectrum - CATV	906 South 12th Street Murray KY 42071	James Adams	2709785307	james.r.adams1@charter.com
City of Fulton - Water	200 Nolan Avenue Fulton KY 42041	Billy "Bubba" Nelms	2704722434	fultonpwwdir@live.com
Fulton Electric - Electric	501 Walnut Street Fulton KY 42041	David Moss	2704721362	fultonelectric@bellsouth.net
Graves County Water District - Water	C/O MEWS Mayfield Ky 42066	Kevin Leonard	2702474661	kleonard@mewsbb.com
West Kentucky & Tennessee Telecommunications Coop - Communication	WK&T Mayfield KY 42066	Tim Merrick	2707051816	tmerrick.wk@wk.net
West Kentucky RECC - Electric	1218 West Broadway	Milton Jones	2707051295	mjones@wkrecc.com

UTILITIES AND RAIL CERTIFICATION NOTE

<p>Graves County ONHPP0011038 FD52 038 8883201U RECONSTRUCT THE INTERCHANGE AT KY 339 AND THE PURCHASE PARKWAY, Exit 14, WINGO ITEM NUMBER: 01-26.01</p>
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	Mayfield KY 42006			
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SPECIAL NOTES FOR PROTECTION OF RAILROAD INTEREST

Illinois Central Railroad Company

I. AUTHORITY OF RAILROAD ENGINEER AND STATE ENGINEER:

- A. *The authorized representative of the Railroad Company, hereinafter referred to as Railroad Engineer, shall have final authority in all matters affecting the safe maintenance of Railroad traffic of his Company including the adequacy of the foundations and structures supporting the Railroad tracks.*
- B. *The authorized representative of the State, hereinafter referred to as the Engineer, shall have authority over all other matters as prescribed herein and in the Project Specifications.*

II. NOTICE OF STARTING WORK:

- A. *The Contractor shall not commence any work on Railroad rights of way until he has complied with the following conditions:*
 - 1. Given the Railroad written notice, with copy to the Engineer who has been designated to be in charge of the work, **at least ten (10) days in advance** of the date he proposes to begin work on Railroad rights of way. **If flagging service is required, such notice shall be submitted at least thirty (30) days in advance** of the date scheduled to commence work. The Railroad's Contact information is on the Summary Sheet.
 - 2. Obtain written authorization from the Railroad to begin work on Railroad rights of way, such authorization to include an outline of specific conditions with which he must comply and execution of the Railroad's standard right of entry agreement.
 - 3. Obtain written approval from the Railroad of Railroad Protective Insurance Liability coverage as required by paragraph 14 herein.
 - 4. Furnish a schedule for all work within the Railroad rights of way as required by paragraph 7, B, 1.
- B. *The Railroad's written authorization to proceed with the work shall include the names, addresses, and telephone numbers of the Railroad's representatives who*

EXHIBIT "B"

are to be notified as hereinafter required. Where more than one representative is designated, the area of responsibility of each representative shall be specified.

III. INTERFERENCE WITH RAILROAD OPERATIONS:

- A. *The Contractor shall so arrange and conduct his work that there will be no interference with Railroad operations, including train, signal, telephone and telegraphic services, or damage to the property of the Railroad Company or to poles, wires, and other facilities of tenants on the rights of way of the Railroad Company. Whenever work is liable to affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad Engineer for approval, but such approval shall not relieve the Contractor from liability. Any work to be performed by the Contractor which requires flagging service or inspection service (watchman) shall be deferred by the Contractor until the flagging protection required by the Railroad is available at the job site.*
- B. *Whenever work within Railroad rights of way is of such a nature that impediment to Railroad operations such as use of runaround tracks or necessity for reduced speed is unavoidable, the Contractor shall schedule and conduct his operations so that such impediment is reduced to the absolute minimum.*
- C. *Should conditions arising from, or in connection with the work, require that immediate and unusual provisions be made to protect operations and property of the Railroad, the Contractor shall make such provisions. If in the judgment of the Railroad Engineer, or in his absence, the Engineer, such provisions are insufficient, either may require or provide such provisions, as he deems necessary. In any event, such unusual provisions shall be at the Contractor's expense and without cost to the Railroad or the State.*

IV. TRACK CLEARANCES

- A. *The minimum track clearances to be maintained by the Contractor during construction are shown on the Project Plans. However, before undertaking any work within Railroad rights of way, or before placing any obstruction over any track, the Contractor shall:*
 - 1. Notify the Railroad's representative **at least 72 hours in advance** of the work.
 - 2. Receive assurance from the Railroad's flagging representative that arrangements have been made for flagging service as necessary.
 - 3. Receive permission from the Railroad's representative to proceed with the work.
 - 4. Ascertain that the Engineer has received copies of notice to the Railroad and of the Railroad's response thereto.

V. CONSTRUCTION PROCEDURES

A. General:

1. Construction work on Railroad property shall be:
 - a) Subject to the inspection and approval of the Railroad.
 - b) In accord with the Railroad's written outline of specific conditions.
 - c) In accord with the Railroad's general rules, regulations and requirements including those relating to safety, fall protection and personal protective equipment.
 - d) In accord with all Special Notes, Summaries, and Addendums.
2. The Railroad requires a submission of construction procedure that meets the requirements of these Special Notes and attachments. The Railroad's **submittal review period is thirty (30) days. Resubmissions will be reviewed within 2 weeks.**

B. Excavation and shoring:

1. The sub grade of an operated track shall be **maintained with edge of berm at least 10'0" from centerline of track and not more than 18 inches below top of rail, and a 1 vertical to 1.5 horizontal slope from that point outwards.** Contractor will not be required to make existing section meet this specification if substandard, in which case the existing section will be maintained.
2. The Contractor will be required to take special precaution and care in connection with excavating and shoring pits, and in driving piles, or sheeting for footings adjacent to tracks to provide adequate lateral support for the tracks and the loads which they carry, without disturbance of track alignment and surface, and to avoid obstructing track clearances with working equipment, tools or other material. The procedure for doing such work, including need of and plans for shoring, shall first be approved by the Engineer and the Railroad Engineer, but such approval shall not relieve the Contractor from liability.
3. The Contractor shall submit a detailed procedure for the installing of sheeting/shoring adjacent to Railroad Tracks.
4. Shoring protection shall be provided when excavating adjacent to an active track or railroad facility or as determined by the Railroad. Shoring will be provided in accordance with AREMA *Manual for Railway Engineering* Chapter 8, part 28; except as noted below.

5. Shoring may not be required if all of the following conditions are satisfied:
 - a. Excavation does not encroach upon a 1½ horizontal: 1 vertical theoretical slope line starting 1'-0" below top of rail and at 12'-0" minimum from centerline of the track (live load influence zone).
 - b. Track is on level ground or in a cut section and on stable soil.
 - c. Excavation does not adversely impact the stability of a Railroad facility (i.e. signal bungalow, drainage facility, undergrade bridge, building, etc.)
 - d. Shoring is not required by any governing construction code.
6. When the track is on an embankment, excavating the toe of the embankment without shoring may affect the stability of the embankment. Therefore, excavation of the embankment toe without shoring will not be permitted.
7. Trench boxes are prohibited for use on Railroad property within the theoretical live load influence zone.
8. The required protection is the cofferdam type that completely encloses the excavation. Where dictated by conditions, partial cofferdams with opened sides away from the track may be used. Cofferdams shall be constructed using steel piling, or when approved by the engineer, steel soldier piles with timber lagging. Wales and struts shall be provided and designed as needed. The following shall be considered when designing cofferdams:
 - a. Shoring shall be designed to resist a vertical live load surcharge of 1,880 lbs. per square foot, in addition to active earth pressure. The surcharge shall be assumed to act on a continuous strip, 8'6" wide. Lateral pressures due to surcharge shall be computed using the strip load formula shown in AREMA *Manual for Railway Engineering*, Chapter 8, Part 20.
 - b. Allowable stresses in materials shall be in accordance with AREMA *Manual for Railway Engineering*, Chapter 7, 8, and 15.
 - c. A construction procedure for temporary shoring shall be shown on the drawing.
 - d. All shoring systems on or adjacent to Railroad right-of-way shall be equipped with railings or other approved fall protection.

- e. A minimum horizontal clearance of 10'-0" from centerline of the track to face of nearest point of shoring shall be maintained provided a 12'-0" roadbed is maintained with a temporary walkway and handrail system.
9. The Contractor shall submit the following drawings and calculations (all shall be signed/sealed by a Professional Engineer) for the Railroad's review and approval.
- a. Six (6) sets of detailed drawings of the shoring systems showing sizes of all structural members, details of connections, and distances from centerline of track to face of shoring. Drawing shall show a section showing height of shoring and track elevation in relation to bottom of excavation.
 - b. Six (6) sets of calculations of the shoring design. The drawings and calculations shall be prepared by a Licensed Professional Engineer and shall bear the Engineer's seal and signature. Shoring plans shall be approved by the Railroad's construction engineering and inspection representative.
 - c. For sheeting and shoring within 18'-0" of the centerline of the track, the live load influence zone, and in slopes, the Contractor shall use interlocked steel sheeting (sheet pile).
 - d. Sheet pile installed in slopes or within 18'-0" of the centerline shall not be removed.
 - e. Sheet pile shall be cut off a minimum of 3'-0" below the finished grade, ditch line invert, or as directed by the Engineer. The ground shall be backfilled and compacted immediately after sheet pile is cut off.
 - f. A procedure for cutting off the sheet pile and restoring the embankment shall be submitted to the Engineer for review and acceptance.

C. *Demolition Procedure:*

1. Railroad tracks and other railroad property, including signals, structures, and other facilities, must be protected from damage during the procedure. No crane or equipment may be set on the rails or track structure and no material may be dropped on Railroad property.
2. The Contractor is required to submit a plan showing the location of cranes, horizontally and vertically, operating radii, with delivery or disposal locations shown. The location of all tracks and other railroad facilities as well as all obstructions such as wire lines, poles, adjacent structures, etc. must also be shown.
3. Crane rating sheets showing cranes to be adequate for **150% of the actual weight of the pick.** A complete set of crane charts, including crane, counterweight, and boom nomenclature is to be submitted.
4. Plans and computations showing the weight of the pick must be submitted. Calculations shall be made from plans of the existing and/or proposed structure showing complete and sufficient details with supporting data for the demolition or erection of the structure. If plans do not exist, lifting weights must be calculated from field measurements. If possible, field measurements shall be taken with a Railroad representative present.
5. A data sheet must be submitted listing the types, size, and arrangements of all rigging and connection equipment. The safe working load capacity of all rigging and connecting equipment shall be 150% above the calculated weight of the pick.
6. A complete procedure is to be submitted, including the order of lifts, time required for each lift, and any repositioning or re-hitching of the crane or cranes.
7. All erection or demolition plans, procedures, data sheets, etc. submitted must be prepared, signed and sealed by a Registered Professional Engineer.
8. The Railroad's representative must be present at the site during the entire demolition and erection procedure period.
9. All procedures, plans and calculations shall first be approved by the Engineer and the Railroad Engineer, but such approval does not relieve the Contractor from liability.
10. Loads shall not be supported while any trains are passing if that piece of equipment has the capacity to foul a 50' envelope in the event of an equipment failure.

11. The names and experience of the key Contractor personnel involved in the operation shall be included in the Contractor's means and methods submission.
12. Existing, obsolete, bridge piers shall be removed to a minimum of 3'-0" below the finished grade, final ditch line invert, or as directed by the Engineer.
13. A minimum quantity of 25 tons of Railroad approved track ballast may be required to be furnished and stockpiled on site by the Contractor, or as directed by the Engineer.
14. On-track or ground debris shields such as crane mats are prohibited.
15. Overhead Demolition Debris Shield – Shall be installed prior to the demolition of a bridge deck or other relevant portions of the superstructure.
 - a. The demolition debris shield shall be erected from the underside of the bridge over the track area to catch all falling debris.
 - b. The Contractor shall include the demolition debris shield installation/removal means and methods as part of the proposed Controlled Demolition procedure submission.
 - c. The demolition debris shield shall provide 23'-0" minimum vertical clearance if the existing clearance is less than 23'-0" as approved by the Railroad. Horizontal clearance to the centerline of the track should not be reduced unless approved by the Engineer.
 - d. The vertical clearance ATR (above top of rail) is measured from the top of rail to the lowest point on the overhead shielding system measured within a distance of 8'-0" out from each side of the track centerline.
 - e. The demolition debris shield design and supporting calculations, all signed/sealed by a Professional Engineer, shall be submitted for review and acceptance.
 - f. The demolition debris shield shall have a **minimum** design load of 50 pounds per square foot **plus** the weight of the equipment, debris, personnel, and other loads to be carried.
 - g. The Contractor shall include the proposed bridge deck removal procedure in its demolition means and methods and shall verify that the size and quantity of the demolition debris generated by the procedure does not exceed the shield design loads.

D. Erection Procedure:

The Contractor shall submit a detailed procedure for performing erection on/about Railroad property.

1. The Contractor shall submit six (6) copies of the detailed procedure for erection of the proposed structures over or adjacent to the tracks or right-of-way. This procedure shall include a plan showing the locations of cranes, horizontally and vertically, operating radii, with staging locations shown, including beam placement on ground or truck unloading staging plan. Plan should also include the location of all tracks, other railroad facilities; wires, poles, adjacent structures, or buried utilities that could be affected, showing that the proposed lifts are clear of these obstructions should be shown. No crane or equipment may be set on the rails or track structure.
2. Also included with this submittal the following information:
 - a. As-Built Bridge Seat Elevations - All as-built bridge seats and top of rail elevations shall be furnished to the Engineer for review and verification at least 30 days in advance of construction or erection, to ensure that minimum vertical clearances as approved in the plans will be achieved.
 - b. Computations showing weight of picks must be submitted. Computations shall be made from plans of the structure beams being erected and those plans or sections thereof shall also be included in the submittal; the weight shall include the weight of concrete or other materials including lifting rigging.
 - c. Crane rating sheets showing cranes to be adequate for 150% of the actual weight of the pick. A complete set of crane charts, including crane, counterweight, maximum boom angle, and boom nomenclature is to be submitted. Safety factors that may have been "built in" to the crane charts are not to be considered when determining the 150% Factor of Safety.
 - d. A data sheet shall be prepared listing the type, size and arrangements of slings, shackles, or other connecting equipment. Include copies of a catalog or information sheets for specialized equipment. All specific components proposed for use shall be clearly identified and highlighted in the submitted documents. The safe working load capacity of the connecting equipment shall be 150% above the calculated weight of the pick.
 - e. A complete written procedure is to be included that describes the sequence of events, indicating the order of lifts and any repositioning or rehitching of the crane or cranes.

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

E. Blasting:

1. The Contractor shall obtain advance approval of the Railroad Engineer and the Engineer for use of explosive on or adjacent to Railroad property. The request for permission to use explosives shall include a detailed blasting plan. If permission for use of explosives is granted, the Contractor will be required to comply with the following:
 - a) Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of the Contractor and a licensed blaster.

- b) Electric detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way train radios.
- c) No blasting shall be done without the presence of an authorized representative of the Railroad. **At least 10 days advance notice** to the person designated in the Railroad's notice of authorization to proceed (see paragraph 2B above) will be required to arrange for the presence of an authorized Railroad representative and such flagging as the Railroad may require.
- d) Have at the job site adequate equipment, labor and materials and allow sufficient time to clean up debris resulting from the blasting without delay to trains, as well as correcting at his expense any track misalignment or other damage to Railroad property resulting from the blasting as directed by the Railway's authorized representative. If his actions result in delay of trains, the Contractor shall bear the entire cost thereof.
- e) Explosives shall not be stored on Railroad Property.
- f) At any time during the blasting activities, the Engineer may require revisions to the previously approved procedures to address weather, site conditions, or other circumstance which may create a potential hazard to rail operations or Railroad facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the Engineer's satisfaction. The Railroad shall not be responsible for any additional costs or time claims associated with such revisions.

2. The Railroad representative will:

- a) Determine the approximate location of trains and advise the Contractor the approximate amount of time available for the blasting operation and clean-up.
- b) Have the authority to order discontinuance of blasting if, in his opinion, blasting is too hazardous or is not in accord with these Special Notes.

F. Track Monitoring:

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

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

G. Maintenance of Railroad Facilities:

1. The Contractor will be required to maintain all ditches and drainage structures free of silt or other obstructions which may result from his operations and provide and maintain any erosion control measures as required. The Contractor shall provide erosion control measures during construction and use methods that accord with applicable state standard specifications for road and bridge construction, including either (1) silt fence; (2) hay or straw barrier; (3) berm or temporary ditches; (4) sediment basin; (5) aggregate checks; and (6) channel lining. The Contractor will promptly repair eroded areas with Railroad rights of way and to repair any other damage to the property of the Railroad or its tenants at the Contractor's expense.
2. All maintenance and repair of damages due to the Contractor's operations shall be done at the Contractor's expense.

H. Storage of Materials and Equipment:

1. Materials and equipment shall not be stored where they will interfere with Railroad operations, nor on the rights of way of the Railroad Company without first having obtained permission from the Railroad Engineer, and such permission will be with the understanding that the Railroad Company will not be liable for damage to such material and equipment from any cause and that the Railroad Engineer may move or require the Contractor to move, at the Contractor's expense, such material and equipment. In no instance shall material be stored closer than 25-feet to the nearest rail.
2. All grading or construction machinery that is left parked near the track unattended by a watchman shall be effectively immobilized so that it cannot be moved by unauthorized persons. The Contractor shall protect, defend, indemnify and save Railroad, and any associated, controlled or affiliated corporation, harmless from and against all losses, costs, expenses, claim or liability for loss or damage to property or the loss of life or personal injury, arising out of or incident to the Contractor's failure to immobilize grading or construction machinery.

I. Cleanup:

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

VI. DAMAGES:

- A. *The Contractor shall assume all liability for any and all damages to his work, employees, equipment and materials caused by Railroad traffic.*
- B. *Any cost incurred by the Railroad for repairing damages to its property or to property of its tenants, caused by or resulting from the operations of the Contractor, shall be paid directly to the Railroad by the Contractor.*

VII. FLAGGING SERVICES:

- A. *When Required:*
 - 1. Flagging services will not be provided until the contractor's insurance has been reviewed & approved by the Railroad.
 - 2. Under the terms of the agreement between the Department and the Railroad, the **Railroad has sole authority to determine the need for flagging** required to protect its operations. In general, the requirements of such services will be whenever the Contractor's personnel or equipment are likely to be, working on the Railroad's rights of way, or across, over, adjacent to, or under a track, or when such work has disturbed or is likely to disturb a railroad structure or the railroad roadbed or surface and alignment of any track to such extent that the movement of trains must be controlled by flagging. If any element (workers, equipment, tools, scaffolding, etc.) may exist or fall within 25-feet of the edge of track, a flagman is necessary.
 - 3. Normally, the Railroad will assign one flagman to a project; but in some cases, more than one may be necessary, such as yard limits where three- (3) flagmen may be required. However, if the Contractor works within distances that violate instructions given by the Railroad's authorized representative or performs work that has not been scheduled with the Railroad's authorized representative, a flagman or flagmen may be required until the project has been completed.
- B. *Scheduling and Notification:*
 - 1. Not later than the time that approval is initially requested to begin work on Railroad rights of way, Contractor shall furnish to the Railroad and the Department a schedule for all work required to complete the portion of the project within Railroad rights of way and arrange for a job site meeting between the Contractor, the Department, and the Railroad's authorized representative. Flagman or Flagmen may not be provided until the job site meeting has been conducted and the Contractor's work scheduled.

2. **The Cabinet's Engineer will be responsible for procuring flagmen, however, it is the Contractor's responsibility to notify the Engineer when they are needed.** The Contractor will be required to give the Engineer **at least 10 working days of advance written notice** of intent to begin work within Railroad rights of way. If it is necessary for the Railroad to advertise a flagging job for bid, it **may take up to 90-days to obtain service**. Once begun, when work is suspended at any time for any reason, the Contractor will be required to give the Engineer **at least 3 working days of notice** before resuming work on Railroad rights of way. Such notice shall include sufficient details of the proposed work to enable the Railroad representative to determine if flagging will be required. If such notice is in writing, the Contractor shall furnish the Engineer a copy; if notice is given verbally it shall be confirmed in writing with copy to the Engineer. If flagging is required, no work shall be undertaken until the flagman, or flagmen is present at the job site. It **may take up to 30 days to obtain flagging initially** from the Railroad. When flagging begins the flagman is usually assigned by the Railroad to work at the project site on a continual basis until no longer needed and cannot be called for on a spot basis. If flagging becomes unnecessary and is suspended, it **may take up to 10 days to again obtain flagging services** from the Railroad. Due to labor agreements, it is necessary to give **5 working days notice before flagging service may be discontinued** and responsibility for payment stopped.
3. If, after the flagman is assigned to the project site, emergencies arise which require the flagman's presence elsewhere, and then the Contractor shall delay work on Railroad rights of way until such time as the flagman is again available. Any additional costs resulting from such delay shall be borne by the Contractor and not the Department or Railroad.
4. When demobilizing, the Contractor shall contact the Engineer, who will in turn contact the flagman to avoid unnecessary flagging charges. This communication shall be documented.

C. *Payment:*

1. **The Cabinet will be responsible for paying the Railroad directly for any and all costs of flagging, which may be required to accomplish the construction.**
2. The estimated cost of flagging is listed on the Summary Sheet. The charge to the Cabinet by the Railroad will be the actual cost based on the rate of pay for the Railroad's employees, or it's contractor, who are available for flagging service at the time the service is required.
3. Railroad work involved in preparing and handling bills will also be charged

to the Cabinet. Charges to the Cabinet by the Railroad shall be in accordance with applicable provisions of 23 CRF 140, Subpart I and 23 CRF 646, Subpart B. Flagging costs are subject to change. The above estimates of flagging cost are provided for information only and are not binding in any way.

D. Verification:

1. The Department will review and sign the Railroad flagman's time sheet, attesting that the flagman was present during the time recorded. Flagman may be removed by Railroad if form is not signed. If flagman is removed, the Contractor will not be allowed to re-enter the Railroad rights of way until the issue is resolved. Any complaints concerning flagman or flagmen must be resolved in a timely manner. If need for flagman or flagmen is questioned, please contact the Railroad's Representative listed on the Project Summary Sheet. All verbal complaints must be confirmed in writing by the Contractor within 5 working days with copy to the Highway Engineer. All written correspondence should be addressed to the Railroad's Representative listed on the Project Summary Sheet.
2. The Railroad flagman assigned to the project will be responsible for notifying the Project Engineer upon arrival at the job site on the first day (or as soon thereafter as possible) that flagging services begin and on the last day that he performs such services for each separate period that services are provided. The Project Engineer will document such notification in the project records. When requested, the Project Engineer will also sign the flagman's diary showing daily time spent and activity at the project site.

VIII. HAUL ACROSS RAILROAD:

- A. Where the plans show or imply that materials of any nature must be hauled across a Railroad, unless the plans clearly show that the State has included arrangements for such haul in its agreement with the Railroad, the Contractor will be required to make all necessary arrangements with the Railroad regarding means of transporting such materials across the Railroad. The Contractor will be required to bear all costs incidental, including flagging, to such crossings whether services are performed by his own forces or by Railroad personnel.*
- B. No crossing may be established for use of the Contractor for transporting materials or equipment across the tracks of the Railroad Company unless specific authority for is installation, maintenance, necessary watching and flagging thereof and removal, all at the expense of the Contractor, is first obtained from the Railroad Engineer. **The approval process for an agreement normally takes 90-days.***

IX. WORK FOR THE BENEFIT OF THE CONTRACTOR:

- A. *All temporary or permanent changes in wire lines or other facilities which are considered necessary to the project are shown on the plans; included in the force account agreement between the State and the Railroad or will be covered by appropriate revisions to same which will be initiated and approved by the State and/or the Railroad.*
- B. *Should the Contractor desire any changes in addition to the above, then he shall make separate arrangements with the Railroad for same to be accomplished at the Contractor's expense.*

X. COOPERATION AND DELAYS:

- A. *It shall be the Contractor's responsibility to arrange a schedule with the Railroad for accomplishing stage construction involving work by the Railroad or tenants of the Railroad. In arranging his schedule he shall ascertain, from the Railroad, the lead time required for assembling crews and materials and shall make due allowance therefore.*
- B. *Train schedules cannot be provided to the Contractor. It is the Contractor's responsibility to contact the Railroad in order to arrange "Track Time." This "Track Time" will be an agreed upon prearranged time period that the Railroad will, without undue burden, schedule no train traffic to facilitate the Contractor's work on or near Railroad right-of-way. Due to track operations, there is no guarantee for track time. This track time must be arranged **at least 7 days prior to the date of need.***
- C. *No charge or claims of the Contractor against either the Department or the Railroad will be allowed for hindrance or delay on account of railroad traffic; any work done by the Railroad or other delay incident to or necessary for safe maintenance of Railroad traffic or for any delays due to compliance with these Special Notes.*
- D. *The Contractor shall cooperate with others participating in the construction of the Project to the end that all work may be carried on to the best advantage.*
- E. *The Railroad does not assume any responsibility for work performed by others in connection with the Project. No claims of the Contractor against the Railroad for any inconvenience, delay, or additional cost incurred by the Contractor on account of operations by others.*

XI. TRAINMAN'S WALKWAYS:

- A. *Along the outer side of each exterior track of multiple operated track, and on each side of single operated track, an unobstructed continuous space suitable for trainman's use in walking along trains, extending to a line not less than 10 feet from centerline of track, shall be maintained. Any temporary impediments to walkways and track drainage encroachments or obstructions allowed during work hours while Railroad's protective service is provided shall be removed before the close of each day. If there is any excavation near the walkway, a handrail, with 15'-0" minimum clearance from centerline of track, shall be placed.*

XII. GUIDELINES FOR PERSONNEL ON RAILROAD RIGHTS OF WAY:

- A. *All persons shall wear hard hats. Appropriate eye and hearing protection must be used. Working in shorts is prohibited. Shirts must cover shoulders, back and abdomen. Working in tennis or jogging shoes, sandals, boots with high heels, cowboy and other slip on type boots is prohibited. Hard-sole, lace-up footwear, zippered boots cinched with straps which fit snugly about the ankle are adequate. Safety boots are required.*
- B. *No one is allowed within 50' of the centerline of the track without specific authorization from the flagman.*
- C. *All persons working near track when train is passing are to look out for dragging bands, chains and protruding or shifting cargo.*
- D. *No one is allowed to cross tracks without specific authorization from the flagman.*
- E. *All welders and cutting torches working within 25' of track must stop when train is passing.*
- F. *No steel tape or chain will be allowed to cross or touch rails without permission.*

XIII. GUIDELINES FOR EQUIPMENT ON RAILROAD RIGHTS OF WAY:

- A. *No crane or boom equipment will be allowed to set up to work or park within boom distance plus 15' of centerline of track without specific permission from railroad official and flagman.*
- B. *No crane or boom equipment will be allowed to foul track or lift a load over the track without flag protection and track time.*
- C. *All employees will stay with their machines when crane or boom equipment is pointed toward track.*
- D. *All cranes and boom equipment under load will stop work while a train is passing (including pile driving).*

- E. *Swinging loads must be secured to prevent movement while train is passing.*
- F. *No loads will be suspended above a moving train.*
- G. *No equipment will be allowed within 50' of centerline of track without specific authorization of the flagman.*
- H. *Trucks, tractors or any equipment will not touch ballast line without specific permission from railroad official and flagman.*
- I. *No equipment or load movement within 50' or above a standing train or other equipment without specific authorization of the flagman.*
- J. *All operating equipment within 50' of track must halt operations when a train is passing. All other operating equipment may be halted by the flagman if the flagman views the operation to be dangerous to the passing train.*
- K. *All equipment, loads and cables are prohibited from touching rails.*
- L. *While clearing and grubbing, no vegetation will be removed from railroad embankment with heavy equipment without specific permission from the Railroad Engineer and flagman.*
- M. *No equipment or materials will be parked or stored on Railroad's property unless specific permission is granted from the Railroad Engineer.*
- N. *All unattended equipment that is left parked on Railroad property shall be effectively immobilized so that it can not be moved by unauthorized persons.*
- O. *All cranes and boom equipment will be turned away from track after each work day or whenever unattended by an operator.*

XIV. INSURANCE:

- A. *In addition to any other forms of insurance or bonds required under the terms of the contract and specifications, the Contractor will be required to carry insurance of the following kinds:*
 - 1. *Commercial General Liability coverage at their sole cost and expense with limits of not less than **\$5,000,000** in combined single limits for bodily injury and/or property damage per occurrence, and such policies shall name the Railroad as an additional insured. Contractor shall provide the Railroad with a complete waiver of subrogation, and remove any exclusion for coverage of work occurring within 50' of a railroad track pursuant to Endorsement CG 24.17.*
 - 2. *Statutory Worker's Compensation and Employers Liability Insurance with*

limits of not less than **\$1,000,000**, which insurance must contain a waiver of subrogation against the Railroad and its affiliates.

3. Commercial automobile liability insurance with limits of not less than **\$1,000,000** combined single limit for bodily injury and/or property damage per occurrence, and such policies shall name the Railroad as an additional insured.
4. Railroad protective liability insurance with limits of not less than **\$5,000,000** combined single limit for bodily injury and/or property damage per occurrence and an aggregate annual limit of **\$10,000,000**, which insurance shall satisfy the following additional requirements:
 - a. The Railroad Protective Insurance Policy must be on the ISO/RIMA Form of Railroad Protective Insurance – Insurance Services Office (ISO) Form CG 00 35.
 - b. The Railroad must be the named insured on the Railroad Protective Insurance Policy
 - c. Name and Address of the Contractor must be shown on the Declarations page.
 - d. Description of operations must appear on the Declarations page and must match the Project description, including project or contract identification numbers.
 - e. Authorized endorsements must include the Pollution Exclusion Amendment – CG 28 31, unless using form CG 00 35 version 96 and later.
 - f. Authorized endorsements may include:
 - (i). Broad form Nuclear Exclusion – IL 00 21
 - (ii). 30-day Advance Notices of Non-renewal or cancellation
 - (iii). Required State Cancellation Endorsement
 - (iv). Quick Reference or Index – CL/IL 240
 - g. Authorized endorsements may not include:
 - (i). A Pollution Exclusion Endorsement except CG 28 31
 - (ii). A Punitive or Exemplary Damages Exclusion
 - (iii). A “Common Policy Conditions” Endorsement
 - (iv). And endorsement that is not named in Section 4 (e) or (f) above.
 - (v). Policies that contain any type of deductible

5. All insurance companies must be A. M. Best rated A- and Class VII or better.
6. Such additional or different insurance as the Railroad may require.

B. Additional Terms:

1. Contractor must submit the original Railroad Protective Liability policy, Certificates of Insurance, and all notices and correspondence regarding the insurance policy to the contact listed on the Project Summary Sheet.
2. The Contractor may not begin work on the Project until it has received the Railroad's written approval or the required insurance.

C. Insurance policies shall follow the requirements of 23 CRF 646, Subpart A.

D. Evidence of insurance as required above shall be furnished to the address shown on the attached Summary Sheet for review by the Department and transmittal to the Railroad.

E. If any part of the work is sublet, similar insurance and evidence thereof in the same amounts as required of the Prime Contractor shall be provided by or in behalf of the subcontractor to cover his operations. Endorsements to the Prime Contractor's policies specifically naming subcontractors and describing their operations will be acceptable for this purpose.

*F. All insurance herein before specified shall be carried until all work required to be performed under the terms of the contract has been satisfactorily completed within the limits of the rights of way of the Railroad as evidenced by the formal acceptance by the Department. Insuring Companies may cancel insurance by permission of the Department and Railroad or on **thirty (30) days written notice** to the Department and Railroad Insurance Contacts as listed on the Project Summary Sheet.*

XV. FAILURE TO COMPLY:

- A. *These Special Notes are supplemental and amendatory to the Kentucky Department of Highways' Standard Specifications for Road and Bridge Construction, Edition of 2008, and amendments thereof, and where in conflict therewith, these Special Notes shall govern.*
- B. *In the event the Contractor violates or fails to comply with any of the requirements of these Special Notes:*
1. The Railroad Engineer may require that the Contractor vacate Railroad property.
 2. The Engineer may withhold all monies due the Contractor on monthly statements.
 3. Any such orders shall remain in effect until the Contractor has remedied the situation to the satisfaction of the Railroad Engineer and the Engineer.

XVI. PAYMENT FOR COST OF COMPLIANCE:

- A. *No separate payment will be made for any extra cost incurred on account of compliance with these Special Notes. All such cost shall be included in prices bid for other items of the work as specified in the payment items.*

XVII. CONTRACTOR'S RIGHT OF ENTRY AGREEMENT

- A. *Prior to entry onto Railroad right of way, the contractor will be required to enter into a Right of Entry Agreement with the railroad. The Contractor is responsible for garnering this agreement and executing any terms and conditions stated therein, including any and all fees associated with this agreement, which shall not exceed \$750.00. A blank agreement is provided in the bid package. When the contract is awarded, the Contractor shall sign the form and return it to the Cabinet with the contract before a work order is issued.*



Kentucky Transportation Cabinet
Division of Right of Way & Utilities

TC 69-008
08/2010
Page 1 of 2

SUMMARY FOR KYTC PROJECTS THAT INVOLVE A RAILROAD

Date: 8/10/2022 (enter using M/d/yyyy format)

This project actively involves the below listed railroad company. This Project Summary provides an abbreviated listing of project specific railroad data. The detailed needs of the specified railroad company are included in the Special Notes for Protection of Railroad Interest in the proposal package. By submitting a bid, the contractor attests that they have dutifully considered and accepted the provisions as defined in both documents.

GENERAL ROAD PROJECT INFORMATION (This section must be provided by KYTC)

County: Fulton
Federal Number: NHPP 0011 (038)
State Number: FD52 038 88832 01U
Route: JC 9003
Project Description: Purchase Parkway over IC
Item Number: 01-26.00 **Highway Milepost:** 1.20-3.434

GENERAL RAIL INFORMATION (The below sections must be provided by Railroad Company)

Rail Company Name: Illinois Central Railroad
AAR-DOT# (if applicable): 299226P, 296768N **Railroad Milepost:** 405.00, 42.19
Freight: Train Count (6am to 6pm): 14 **Train Count (6pm to 6am):** 14 **Train Count (24 hr total):** 28 **Max Speed:** 20 mph
Passenger: Train Cnt. (6am to 6pm): 1 **Train Cnt. (6pm to 6am):** 1 **Train Cnt. (24 hr total):** 2 **Max Speed:** 20 mph
(This information is necessary to acquire the necessary insurances when working with Railroad Right of Way)

INSURANCE REQUIREMENTS

The named insured, description of the work and designation of the job site to be shown on the Policy are as follows:

- (a) Named Insured: Illinois Central Railroad
- (b) The project description should be as indicated in the General Road Project Information section.
- (c) The designation of the jobsite is the route, Milepost, and AAR-DOT# listed above.

FLAGGING INFORMATION

Flagging Estimate:

Flagging will be paid to the RR by KYTC. Contractor shall adhere to the Special Note for Railroad Flagging, if applicable.

Hourly Rate:

\$1,300.00 per day based on a 8 hour day effective as of the date of this document.

Work by a flagman in excess of 8 hours per day or 40 hours per week, but not more than 12 hours a day will result in overtime pay at 1 1/2 times the appropriate rate. Work by a flagman in excess of 12 hours per day will result in overtime pay at 2 times the appropriate rate. If work is performed on a holiday, the flagging rate is 2 1/2 times the normal rate.

Forecasted Rate Increases:

Rates will increase to \$0.00 per hour based on a 0 hour day effective _____ (enter using M/d/yyyy format).

RAILROAD CONTACTS

(to be provided by Railroad Company)

General Railroad Contact:

John Dinning
Illinois Central Railroad
2151 North Mill Street
Jackson, MS 39202

(Phone) 601-592-1815

(Email) John.Dinning@cn.ca

Regional Representative (Roadmaster):

To be provided by RR upon insurance approval

(Phone) _____

(Email) _____

Insurance contact:

John Dinning
Illinois Central Railroad
2151 North Mill Street
Jackson, MS 39202

(Phone) 601-592-1815

(Email) John.Dinning@cn.ca

Railroad Designer Contact:

Contractor or In-House Employee?

In-House Employee

John Dinning
Illinois Central Railroad
2151 North Mill Street
Jackson, MS 39202

(Phone) 601-592-1815

(Email) John.Dinning@cn.ca

Railroad Construction Contact:

Contractor or In-House Employee? Consultant

(Phone) _____

(Email) _____

KENTUCKY TRANSPORTATION CABINET CONTACTS

(to be provided by KYTC)

KYTC Railroad Coordinator:

Allen Rust, PE
Div. of Right of Way & Utilities
Kentucky Transportation Cabinet
200 Mero Street, 5th Floor East
Frankfort, Kentucky 40622

(Phone) 502-782-4950

(Email) allen.rust@ky.gov

KYTC Construction Procurement Director:

Rachel Mills, Director
Div. of Construction Procurement
Kentucky Transportation Cabinet
200 Mero Street, 3rd Floor West
Frankfort, Kentucky 40622

(Phone) 502-782-5152

(Email) Rachel.Mills@ky.gov

KYTC Construction Director:

Matt Simpson, Director
Div. of Construction
Kentucky Transportation Cabinet
200 Mero Street, 3rd Floor West
Frankfort, Kentucky 40622

(Phone) 502-782-5127

(Email) Matt.Simpson@ky.gov



The project specific information provided herein is valid as of the date indicated. However, the specific information may be subject to change due to the normal business operations of all parties. The terms and conditions defined here, and in the bid proposal in its entirety, are inclusive and constant.



John W. Dinning
Manager Public Works

2151 North Mill Street
Jackson MS 39202

T 601.914.2658
F 601.592.1815
Email: john.dinning@cn.ca

Right of Entry (ROE) License Agreement Information

Cost is **\$1,000.00***for application

Railroad Company requires everyone (contractor, consultants, etc.) working on Railroad Company property to have a Right-of-Entry (ROE) License Agreement. ROE license agreement applications are handled by email. Once Railroad Company receives the information requested below, and if application is approved, Railroad Company will draw up a ROE License Agreement, and will forward electronic copy by email for applicant's execution. Applicant must return one (1) executed original copy, a check for \$1,000.00*, and proof of insurance, together in one package to the address above. Application and ROE License Agreement will be delayed if Railroad Company receives the required documents separately, incomplete, or inaccurate. Railroad Company will return a fully executed digital copy of the ROE License Agreement by email for Applicant's files and records. No work may occur on Railroad Company property nor will flagging protection be provided until ROE License Agreement has been fully executed by both parties and returned. * Fee may be increased for special handling.

Please use this form and return by email to submit application request for a Right of Entry agreement.

Contact name –

Name of Applicant/contractor -

Street Address –

City, State, Zip –

Telephone –

Reason for ROE –

Duration of ROE –

Public Agency's Project No. –

Public agency Easement No. (if known) –

Location of project –

FRA/AAR/DOT Crossing No. –

If unable to locate this number at jobsite, please use following links to obtain:
<http://safetydata.fra.dot.gov/officeofsafety/publicsite/crossing/xingqryloc.aspx>

In Illinois
<http://www.icc.illinois.gov/railroad/advanced.aspx?>

If project job site does not have a FRA/AAR/DOT Crossing Number, please attach an aerial snapshot to help identify specific location.

ROE may take up to 4+ weeks to obtain

FAQ

What are the insurance requirements?

Railroad Company allows outside parties to come onto Railroad Company property to perform work, such as survey or inspection work, installation of pipelines and wirelines, and other work for projects necessitating the occupancy of Railroad Company. Before commencing work, and until the license of allowing such occupancy ends or is terminated, outside parties shall provide and maintain the following insurance in form and amount with companies satisfactory to and as approved by Railroad Company.

1. Minimum insurance required of outside party:
 - A. Statutory Workers Compensation and Employer's Liability Insurance.
 - B. Automobile Liability Insurance in an amount not less than \$1,000,000 combined single limit.
 - C. Commercial General Liability Insurance (Occurrence Form) in an amount not less than \$5,000,000 per occurrence, with an aggregate limit of not less than \$10,000,000. The policy must name "Illinois Central Railroad Company and its Parents." as additional insureds in the following form:

Illinois Central Railroad Company and its Parents.
Attn: Mgr Insurance, Insurance Department
935 de La Gauchetiere St W
Montreal, Quebec H3B 2M9, Canada
514-399-6411 (office); 514-399-4296 (FAX)

The policy must remove any provisions excluding coverage for injury, loss or damage arising out of or resulting from doing business or undertaking construction or demolition on, near, or adjacent to railroad track or facilities using endorsement CG 24171001 or equivalent approved by Railroad Company.

- D. When outside party is required by Railroad Company or Governing Authority to purchase Railroad Protective Liability Insurance to cover work on, near or adjacent to railroad track or facilities, and outside party is not being hired for this project by Railroad Company, outside party must procure Railroad Protective Liability Insurance in the following form;

This coverage shall be written on an Occurrence Form with limits of not less than \$5,000,000 per occurrence for Bodily Injury, Personal Injury and Physical Damage to Property, with an aggregate limit of not less than \$10,000,000. The policy must name:

Illinois Central Railroad Company and its Parents
Attn: Mgr Insurance, Insurance Department
935 de La Gauchetiere St W
Montreal, Quebec H3B 2M9, Canada
514-399-6411 (office); 514-399-4296 (FAX)

- E. In the event the privileges provided herein to Applicant involve any work that could result in the discharge, spillage, disposal, release or escape of any Hazardous Material or petroleum product onto the Railroad Company's property, Applicant shall purchase and maintain in effect at all times during the term of this License a Contractor's Pollution Liability policy in an amount not less than two million dollars (\$2,000,000) combined single limit (and with a deductible not to exceed \$50,000) insuring Railroad against any and all damages, costs, liabilities and expenses resulting from on- or off-site bodily injury (including death to any person), on or off-site loss, damage or destruction of property (including that belonging to the parties hereto), and on-or off-site cleanup costs (including expenses incurred in the investigation, removal, remediation, neutralization, or immobilization of contaminated soils, surface water, groundwater or any other contamination) growing out of or incidental to any discharge, spillage, disposal, release, or escape of any Hazardous Material or petroleum product arising therefrom. For purposes of this Agreement, the term "Hazardous Material" shall include, without limit, any flammable explosives, radioactive materials, hazardous materials, hazardous

wastes, hazardous or toxic substances, or related materials defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. §§ 9601, *et seq.*), the Hazardous Material Transportation Act, as amended (49 U.S.C. §§ 1801, *et seq.*), the Resource Conservation and Recovery Act, as amended (42 U.S.C. §§ 6901 *et seq.*), the Toxic Substances Control Act, as amended (15 U.S.C. §§ 2601, *et seq.*), similar laws or ordinances enacted by any state, county or municipality in which the Property is located, or in the regulations adopted and publications promulgated pursuant to any of the above, as such laws or regulations now exist or may exist in the future.

Applicant is required to advise Railroad Company by thirty (30) day advance written notice when any work to be performed under this License may require Pollution Liability Insurance pursuant to the previous paragraph.

- F. All policies described above must include description of operations, Railroad Company milepost, highway or street name, city and state of location, project number, and Railroad Company contact person on the certificate.
2. Before commencing work, outside party shall deliver to Railroad Company a certificate of insurance evidencing the foregoing coverages and, if requested by Railroad Company, true and complete copies of the policies described above. If the policy is being issued in conjunction with, or as a result of, a city, county or state contract, the policy should be initially submitted to the respective city, county or state agency that will review it first and then forward it to Railroad Company.
3. Common Policy Provisions. Each policy described in paragraph 1, parts A through E above, must include the following provisions:
 - A. Each policy shall include a waiver by the insurer of any right of subrogation against any recovery by or on behalf of any insured.
 - B. Each policy shall provide for not less than thirty (30) days prior written notice to Railroad Company at the address listed above of cancellation of or any material change in that policy.
4. It is understood and agreed that the foregoing insurance coverage requirements, and outside party's compliance with those requirements, is not intended to, and shall not, relieve outside party from, or serve to limit, outside party's liability and indemnity obligations under the provisions herein.
5. Railroad Company shall have the right, from time to time, to revise the amount or form of insurance coverage required as circumstances or changing economic conditions may require. Railroad Company shall give outside party written notice of any such requested change at least thirty (30) days before the date of expiration of the then-existing policy or policies, outside party agrees to, and shall, thereupon provide Railroad Company with such revised policy or policies.
6. Insurance required of SUBCONTRACTOR:
 - A. If a SUBCONTRACTOR is to be employed by outside party to perform work on Railroad Company under or by the permission for occupancy granted to outside party by Railroad Company, before commencing work, the SUBCONTRACTOR shall provide and thereafter maintain all of the insurance described in paragraph 1, parts A through E, above, in the same forms and amounts as provided for above and subject to the other terms and conditions provided for in paragraphs 2 through 4 above.
 - B. In the alternative, before the SUBCONTRACTOR commences work for outside party on Railroad Company, outside party may provide and thereafter maintain all of the insurance described in paragraph 1, parts A through E, above, in the same forms and amounts as provided for above and subject to the other terms and conditions provided for in paragraphs 2 through 5 above, provided that all such insurance names SUBCONTRACTOR as an additional insured and all such insurance provides coverage to all additional insureds, including Railroad Company, for any liability arising out of work performed by all other additional insureds, including SUBCONTRACTOR.

Is safety training required?

Prior to any entry onto Railroad Company's property, the employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee shall determine by the guidelines hereinafter provided and by the work to be performed the level of safety training to be required.

All employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee not hired by Railroad Company that will work on CN property are required to have minimum www.contractororientation.com.

- a. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

All employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee hired by Railroad Company which will work on Railroad Company property are required to have minimum CN Safety and Security Awareness training, in addition to undergoing a background check. This training and background check must be obtained through the eRailSafe.com website. If not done before, the contractor must contact e-RailSafe at 855-383-7434 to be issued a vendor number prior to accessing the noted website. Minimum information required of a Contractor, Grantee, Licensee, or Permittee and/or their contractor when contacting e-RailSafe is Name, Address, Telephone, Contact Person for State Projects, DOT Contract Number, and the AAR/DOT Number. This training is good for a period of two years.

- a. EXCEPTION: Railroad Company has exempted those employees of contractors providing paving services at a road crossing under construction or repair from this requirement.
- b. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

All employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee hired by Railroad Company, whose duties include and who are engaged in the inspection, construction, maintenance, or repair of railroad track, bridges, roadway, signal and communication systems, roadway facilities, or roadway machinery that will work foul of or have the potential to foul a live track are considered Roadway Workers under FRA regulations and CN Policy. They must complete the On-Track Safety Training course approved by Railroad Company and provided by R.R. Safety – AMR, P.O. Box 75, Lomira, WI 53048, telephone (920) 517-1677, email rrsafetytraining@yahoo.com. This training must be repeated at least once each calendar year.

- a. EXCEPTION: Railroad Company has exempted those employees of contractors providing paving services at a road crossing under construction or repair from this requirement.
- b. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.
- c. All the employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee who will operate on-track machinery or those who will provide protection for other employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee must also be trained on CN US Operating Rules pertaining to their duties. They must take and pass the required examination. This training is good for a period of two years.
- d. "Potential to foul a live track" is considered, at a minimum, to be working within twenty-five (25) feet of the track; or as otherwise to be determined by CN Design & Construction Department.

The employees, subcontractors, and/or agents of the Licensee and/or its contractor shall qualify for, and make available for inspection to Railroad Company's employees or other authorized personnel at all times while on Railroad Company property, a photo identification issued by www.e-railsafe.com, along with at least one other government-issued form of identification. Licensee and/or their contractor shall bear all costs of compliance with the requirements of this Section. Railroad Company reserves the right to bar any of employees or agents of a Contractor, Grantee, Licensee, or Permittee and/or their contractor from Railroad Company's property at any time for any reason.

What are the flagging protection rates?

Flagging protection Rates:

Basic rate - 10 hour minimum = \$1,300.00 – Monday thru Friday regular business hours

Overtime rate - hours in excess of 8 hours = \$150.00/hr non regular business hours

Weekend or holiday rate = \$150.00 per hour with a 10 hour minimum or \$1,500.00

Email the above back to john.dinning@cn.ca

Revised 2016-11-01



ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

June 24, 2022

Danny Peake
Kentucky Transportation Cabinet (KYTC)
200 Mero St
Frankfort, KY 40622

Re: §401 Water Quality Certification
I-69 - Graves Co
I-69 Corridor Improvements
WQC No: WQC2022-063-1
AI No.: 172531; Activity ID: APE20220001
KYTC Item No.: 1-26.00
USACE ID No.: LRL-2006-259
UTs to Mayfield, Obion, Cane, Bayou de Chien, &
Harris Fork Creeks
Graves County, Kentucky

Dear Mr. Peake:

Pursuant to Section 401 of the Clean Water Act (CWA) and 40 CFR 121.7(c), the Commonwealth of Kentucky certifies it has reasonable assurances that applicable water quality standards under Kentucky Administrative Regulations Title 401, Chapter 10, established pursuant to Sections 301, 302, 303, 304, 306, and 307 of the CWA, will not be violated by the above referenced project provided that the U.S. Army Corps of Engineers authorizes the activity under a federal license or permit, and the attached conditions are met.

Other permits from the Division of Water may be required for this activity. Projects that disturb one acre or more of land or is part of a larger common plan of development or sale that will ultimately disturb one acre or more of land require a Kentucky Pollution Discharge Elimination System (KPDES) Stormwater Permit; contact the Surface Water Permits Branch (502-564-3410 or SWPBSupport@ky.gov). A Groundwater Protection Plan is required if activities listed in Section 2(2) of 401 KAR 5:037 are conducted. A Water Withdrawal Application is required for activities proposing raw water withdrawals of 10,000 gallons per day or more; contact the Watershed Management Branch (502-564-3410).

All future correspondence on this project must reference AI No. **172531**. **The attached document is your official Water Quality Certification; please read it carefully.** Please contact Wesley Harrod by phone at 502-782-6589 or email at Wesley.Harrod@ky.gov if you have any questions.

Sincerely,

Samantha Vogeler

Samantha Vogeler, Supervisor
Water Quality Certification Section
Kentucky Division of Water

SV:WH

Attachment

cc: Adam Michels, KYTC: Frankfort (via email: adam.michels@ky.gov)
Andrew Logsdon, KYTC: Frankfort (via email: Andrew.Logsdon@ky.gov)
Dave Harmon, KYTC: Frankfort (via email: Dave.Harmon@ky.gov)
Norma Condra, USACE: Louisville District (via email: Norma.C.Condra@usace.army.mil)
Steve Rice, HMB Professional Engineers (via email: srice@hmbpe.com)
Lee Andrews, USFWS: Frankfort (via email: kentuckyes@fws.gov)
Rhonda Lamb, Four Rivers Basin Coordinator (via email: rlamb@murraystate.edu)
Shannon McLeary, Paducah Regional Office (via email: Shannon.McLeary@ky.gov)

KTC Water Quality Certification

I-69 - Graves Co
Facility Requirements
Permit Number: WQC2022-063-1
Activity ID No.: APE20220001

ACTV000000001 (AI 172531 I-69 Corridor Improvements) Roadway Improvements:

Submittal/Action Requirements:

Condition No.	Condition
S-1	<p>Prior to any construction activity, Kentucky Transportation Cabinet (KYTC) shall submit to the Water Quality Section Project Manager a copy of the receipt of purchase of 2,749 stream Adjusted Mitigation Units (AMUs) from an approved mitigation bank OR purchase of 3,299 stream Adjusted Mitigation Units (AMUs) from an approved Kentucky in-lieu fee (ILF) program fund. Credits must be purchased prior to impacts. Mitigation banks and ILF programs are considered approved as defined in the April 10, 2008 Final Rule, 40 CFR Part 230: Compensatory Mitigation for Losses of Aquatic Resources. This condition is necessary to allow impacts to occur. Compensatory mitigation is the method to approve impacts and entire losses of a water resource. The Division can approve impacts and loss based on the confidence that the resource will be replaced and not result in a net loss of aquatic resources. Compensatory mitigation is the method of compliance for the Commonwealth's water quality standards. [33 CFR 332, 40 CFR 230, 401 KAR 10:031 Section 2(1)(a)]</p>
S-2	<p>KYTC shall submit monthly photographs and a narrative discussion documenting the status of the approved stream work to the Water Quality Certification Project Manager or Supervisor. Electronic submissions are acceptable. This condition is necessary for the Division of Water to be informed of the ongoing activity for the purposes of site visits to ensure implementation of Kentucky Regulatory Statutes and Administrative Regulations; the Division will monitor the environment to afford more effective and efficient control practices, to identify changes and conditions in ecological systems, and to warn of emergency conditions. submit report(s) : Due monthly, by the 15th of the month. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]</p>
S-3	<p>KYTC shall notify the Water Quality Certification Project Manager or Supervisor of the scheduled start of construction activities at least two weeks before the start of construction. This condition is necessary for the Division of Water to be informed of the ongoing activity for the purposes of site visits to ensure implementation of Kentucky Regulatory Statutes and Administrative Regulations; the Division will monitor the environment, minimize impact to aquatic resources, protect the use and designation of resources, allow more effective and efficient control practices, identify changes and conditions in ecological systems as a result of activities, and to warn of emergency conditions. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]</p>
S-4	<p>KYTC shall notify the Water Quality Certification Project Manager or Supervisor of substantial completion of construction no later than two weeks post-construction. This condition is necessary for the Division of Water to be informed of the ongoing activity for the purposes of site visits to ensure implementation of Kentucky Regulatory Statutes and Administrative Regulations; the Division will monitor the environment, minimize impact to aquatic resources, protect the use and designation of resources, allow more effective and efficient control practices, identify changes and conditions in ecological systems as a result of activities, and to warn of emergency conditions. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]</p>

KTC Water Quality Certification

I-69 - Graves Co
Facility Requirements
Permit Number: WQC2022-063-1
Activity ID No.: APE20220001

ACTV0000000001 (AI 172531 I-69 Corridor Improvements) Roadway Improvements:

Submittal/Action Requirements:

Condition No.	Condition
S-5	KYTC shall submit as-built drawings within 90 days after substantial completion of construction to the Water Quality Certification Section Project Manager or Supervisor. This condition is necessary to monitor the aquatic resources, minimize impact to aquatic resources, protect the use and designation of resources, allow more effective and efficient control practices, identify changes and conditions in ecological systems as a result of activities, and to warn of emergency conditions. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]

Narrative Requirements:

Condition No.	Condition
T-1	The work approved by this certification shall be limited to 36.621111/-88.779167: -Purchase Parkway (I-69) roadway improvements. -901 linear feet of impacts to ephemeral streams. -3,334 linear feet of impacts to intermittent streams. This condition is necessary to confirm activities approved by this certification. [401 KAR 10:030 Section 1, 401 KAR 9:010 Section 1(a)(2), KRS 224.10-100, KRS 224.70-110]
T-2	All work performed under this certification shall adhere to the design and specifications set forth in the following document(s): -Application for Permit to Construct Across or Along a Stream and/or Water Quality Certification received on 03/22/2022. -Pre-file Meeting Request received on 04/29/2022. -Certification Request received on 04/29/2022. -Revised Permit Application - I-69 Conversion.pdf -RE Notice of Deficiency #2.msg -RE Notice of Deficiency #2b.msg -RE Notice of Deficiency #2c.msg This condition is necessary to confirm activities approved by this certification. [401 KAR 10:030 Section 1, 401 KAR 9:010 Section 1(a)(2), KRS 224.10-100, KRS 224.70-110]

KTC Water Quality Certification

I-69 - Graves Co
Facility Requirements
Permit Number: WQC2022-063-1
Activity ID No.: APE20220001

ACTV0000000001 (AI 172531 I-69 Corridor Improvements) Roadway Improvements:

Narrative Requirements:

Condition No.	Condition
T-3	KYTC is responsible for preventing degradation of waters of the Commonwealth from soil erosion. An erosion and sediment control plan must be designed, implemented, and maintained in effective operating condition at all times during construction. This condition is necessary to prevent and minimize objectionable deposits and pollution and protect the use of the stream. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]
T-4	No in-stream operations or activities shall be conducted during fish spawning season (April 1 through June 30), due to the potential impacts of increased sediment load and associated water quality and designated aquatic habitat impacts. This condition is necessary to monitor the aquatic resources, minimize impact to aquatic resources, protect the use and designation of resources, allow more effective and efficient control practices, identify changes and conditions in ecological systems as a result of activities, and to warn of emergency conditions. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 4(1)(c,h), KRS 224.10-100, KRS 224.70-110]
T-5	Heavy equipment (e.g. bulldozers, backhoes, draglines, etc.), if required for this project, should not be used or operated within the stream channel. In those instances where such instream work is unavoidable, then it shall be performed in such a manner and duration as to minimize re-suspension of sediments and disturbance to the channel, banks, or riparian vegetation. This condition is necessary to prevent and minimize objectionable deposits and pollution and protect the use of the stream. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]
T-6	Erosion and sediment pollution control plans and Best Management Practices must be designed, installed, and maintained in effective operating condition at all times during construction activities so that violations of state water quality standards do not occur. This condition is necessary to prevent and minimize objectionable deposits and pollution and protect the use of the stream. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]
T-7	Remove all sediment and erosion control measures after re-vegetation has become well-established. This condition is necessary to prevent and minimize objectionable deposits and pollution and protect the use of the stream. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]
T-8	Any fill or riprap shall be of a composition that shall not cause violations of water quality standards by adversely affecting the biological, chemical, or physical properties of waters of the Commonwealth. If riprap is used, it shall be of a weight and size that bank stress or slump conditions shall not occur. This condition is necessary to prevent and minimize objectionable deposits and pollution and protect the use of the stream. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]

KTC Water Quality Certification

I-69 - Graves Co
Facility Requirements
Permit Number: WQC2022-063-1
Activity ID No.: APE20220001

ACTV0000000001 (AI 172531 I-69 Corridor Improvements) Roadway Improvements:

Narrative Requirements:

Condition No.	Condition
T-9	Sediment and erosion control measures (e.g., check-dams, silt fencing, or hay bales) shall not be placed within surface waters of the Commonwealth, either temporarily or permanently, without prior approval by the Kentucky Division of Water's Water Quality Certification Section. If placement of sediment and erosion control measures in surface waters is unavoidable, placement shall not be conducted in such a manner that may cause instability of streams that are adjacent to, upstream, or downstream of the structures. All sediment and erosion control measures shall be removed and the natural grade restored prior to withdrawal from the site. This condition is necessary to prevent and minimize objectionable deposits and pollution and protect the use of the stream. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]
T-10	Measures shall be taken to prevent or control spills of fuels, lubricants, or other toxic materials used in construction from entering the watercourse. This condition is necessary to prevent water pollution as prohibited by statute. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]
T-11	To the maximum extent practicable, all in-stream work under this certification shall be performed during low flow. This condition is necessary to prevent and minimize objectionable deposits and pollution and protect the use of the stream. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]
T-12	Removal of existing riparian vegetation shall be restricted to the minimum necessary for project construction. This condition is necessary to minimize negative effects to the environment, protect the use of the stream, and protect aquatic resources. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]
T-13	Should stream pollution, wetland impairment, and/or violations of water quality standards occur as a result of this activity (either from a spill or other forms of water pollution), the Kentucky Division of Water shall be notified immediately by calling 800/564-2380. This condition is necessary to monitor the aquatic resources, minimize impact to aquatic resources, protect the use and designation of resources, allow more effective and efficient control practices, identify changes and conditions in ecological systems as a result of activities, and to warn of emergency conditions. [401 KAR 10:030 Section 1, 401 KAR 10:031 Section 2(1)(a), KRS 224.10-100, KRS 224.70-110]
T-14	This Water Quality Certification expires on June 24, 2027. This condition is necessary for the issuance of the certification. [KRS 224.10-100, KRS 224.16-050(2), KRS 224.70-110]

KTC Water Quality Certification
I-69 - Graves Co
Facility Requirements
Permit Number: WQC2022-063-1
Activity ID No.: APE20220001

Page 5 of 5

ACTV0000000001 (AI 172531 I-69 Corridor Improvements) Roadway Improvements:

Narrative Requirements:

Condition No.	Condition
T-15	<p>Other permits from the Division of Water may be required for this activity. If this activity occurs within a floodplain, a Permit to Construct Across or Along a Stream may be required. Please contact the Floodplain Management Section Supervisor (502-564-3410) for more information prior to construction. If the project will disturb one acre or more of land, or is part of a larger common plan of development or sale that will ultimately disturb one acre or more of land, a Kentucky Pollution Discharge Elimination System (KPDES) Stormwater Permit shall be required. Please contact the Surface Water Permits Branch (502-564-3410 or SWPBSupport@ky.gov) for more information. A Groundwater Protection Plan is required if any of the activities listed in Section 2(2) of 401 KAR 5:037 are conducted. A Water Withdrawal Application is required for any activities proposing raw water withdrawals of 10,000 gallons per day or more. For technical assistance contact the Watershed Management Branch at 502-564-3410 or visit ecy.ky.gov. This condition is necessary for confirm authorized impacts, the appropriate responsible party, monitor the aquatic resources, minimize impact to aquatic resources, protect the use and designation of resources, allow more effective and efficient control practices, identify changes and conditions in ecological systems as a result of activities, and to warn of emergency conditions. [KRS 224.10-100, KRS 224.16-050(2), KRS 224.70-110]</p>
T-16	<p>If there is a transfer or conveyance of the project site during the approved activity, the KYTC shall submit written notice to the Water Quality Certification Section Project Manager or Supervisor of the transfer or conveyance of the project site or any part of the project site at least 60 days prior to the transfer or conveyance of the project site. The notification shall include the WQC number; the Agency Interest (AI) No.; the name, mailing address, email address, and telephone number of the current owner; the name, mailing address, and telephone number of the prospective transferee; the proposed effective date of transfer/conveyance; and a copy of the documentation evidencing the transfer/conveyance. Failure to comply with this condition does not negate the validity or enforceability of this certification. This condition is necessary for confirm authorized impacts, the appropriate responsible party, monitor the aquatic resources, minimize impact to aquatic resources, protect the use and designation of resources, allow more effective and efficient control practices, identify changes and conditions in ecological systems as a result of activities, and to warn of emergency conditions. [401 KAR 10:030 Section 1, 401 KAR 9:010 Section 1(a)(2), KRS 224.10-100, KRS 224.70-110]</p>
T-17	<p>This Water Quality Certification expires five years from the date of issuance on the associated cover letter. [KRS 224.10-100, KRS 224.70-110]</p>

KYTC BMP Plan for Project CID 01 – 26.00



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

**Reconstruct elements of Jackson Purchase
Parkway to meet Interstate standards**

Fulton, Hickman, Graves County, KY

Project: PCN ##-####

KPDES BMP Plan Page 1 of 14

KYTC BMP Plan for Project CID 01 – 26.00

Project information

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

1. Owner – Kentucky Transportation Cabinet, District 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) Jackson Purchase Parkway, Wingo KY 42088
6. Latitude/Longitude (project mid-point) 36^37'16"N, 88^46'45"W
7. County (project mid-point) - Graves
8. Project start date (date work will begin): (2)
9. Projected completion date: (2)

KYTC BMP Plan for Project CID 01 – 26.00

A. Site description:

1. Nature of Construction Activity (from letting project description) – Reconstruct elements of the Purchase Parkway from MP 1 to MP 20, including grade, drain, bridge rail rehab, guardrail, overpass bridge pier protection, signing, lighting, slope repairs and surfacing.
2. Order of major soil disturbing activities (2) and (3)
3. Projected volume of material to be moved 18,690 CY
4. Estimate of total project area (acres) 14.29 acres
5. Estimate of area to be disturbed (acres) 14.29 acres
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.
7. Data describing existing soil condition - The geologic mapping indicates that alluvial soils consisting of sand, silt, sandy gravel, and cherty rubble are present at the site.
8. Data describing existing discharge water quality (if any) (1) & (2)
9. Receiving water name – Bayou de Chien, Brush Creek, Obion Creek, Opossum Creek,
10. TMDLs and Pollutants of Concern in Receiving Waters: (1 DEA)
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.

KYTC BMP Plan for Project CID 01 – 26.00

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:

1. 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.

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- 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

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- 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 : Channel Lining

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 Section 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.

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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:

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- 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 contact 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)

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

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the purpose of post construction storm water management with specific guidance for any non-routine maintenance. (1)

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 successfully completed the KEPSC-RI course as required by Section 213.02.02 of the Standard Specifications for Road and Bridge Construction, current edition.
- 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 50 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 re-seeded / 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.

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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 from 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 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;

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_____ 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.)

SPECIAL NOTE

Filing of eNOI for KPDES Construction Stormwater Permit

**County: Fulton, Hickman,
Graves**

**Route: Purchase
Parkway**

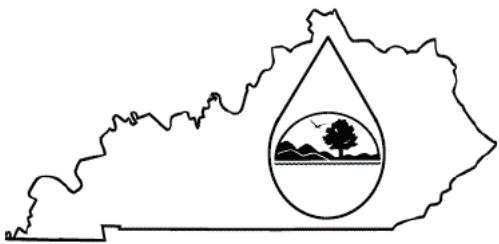
Item No.: 1-26.00

KDOW Submittal ID:

Project Description: Reconstruct elements of Purchase Parkway

A Notice of Intent for obtaining coverage under the Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Stormwater Discharges Associated with Construction Activities (KYR10) has been drafted, copy of which is attached. Upon award, the Contractor will be identified in Section III of the form as the “Building Contractor” and it will be submitted for approval to the Kentucky Division of Water. The Contractor shall be responsible for advancing the work in a manner that is compliant with all applicable and appropriate KYTC specifications for sediment and erosion control as well as meeting the requirements of the KYR10 permit and the KDOW.

If there are any questions regarding this note, please contact Danny Peake, Director, Division of Environmental Analysis, TCOB, 200 Mero Street, Frankfort, KY 40622, Phone: (502) 564-7250.

	<h2 style="margin: 0;">KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)</h2> <p style="margin: 5px 0;">Notice of Intent (NOI) for coverage of Storm Water Discharge Associated with Construction Activities Under the KPDES Storm Water General Permit KYR100000</p> <p style="margin: 10px 0;"> Click here for Instructions (Controls/KPDES_FormKYR10_Instructions.htm) </p> <p style="margin: 5px 0;"> Click here to obtain information and a copy of the KPDES General Permit. (http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf) </p> <p style="margin: 0;">(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field</p>
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Reason for Submittal:(*) <input type="text" value="Application for New Permit Coverage"/>	Agency Interest ID: <input type="text" value="Agency Interest ID"/>	Permit Number:(✓) <input type="text" value="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 construction activities disturbing individually one (1) acre or more, including, in the case of a common plan of development, contiguous construction activities that cumulatively equal one (1) acre or more of disturbance.

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 INFORMATION (PERMITTEE)

Company Name:(✓) <input type="text" value="Kentucky Transportation Cabinet"/>	First Name:(✓) <input type="text" value="Kyle"/>	M.I.: <input type="text" value="M"/>	Last Name:(✓) <input type="text" value="Poat"/>
Mailing Address:(*) <input type="text" value="5501 KY Dam Road"/>	City:(*) <input type="text" value="Paducah"/>	State:(*) <input type="text" value="Kentucky"/>	Zip:(*) <input type="text" value="42003"/>
eMail Address:(*) <input type="text" value="kyle.poat@ky.gov"/>	Business Phone:(*) <input type="text" value="270-898-2431"/>	Alternate Phone: <input type="text" value="270-994-1910"/>	

SECTION II -- GENERAL SITE LOCATION INFORMATION

Project Name:(*) <input type="text" value="Upgrade Purchase Parkway to I-69"/>	Status of Owner/Operator(*) <input type="text" value="State Government"/>	SIC Code(*) <input type="text" value="1611 Highway and Street Cons"/>
Company Name:(✓) <input type="text" value="Kentucky Transportation Cabinet"/>	First Name:(✓) <input type="text" value="Kyle"/>	M.I.: <input type="text" value="M"/>
Last Name:(✓) <input type="text" value="Poat"/>		
Site Physical Address:(*) <input type="text" value="KY 339 and Purchase Parkway"/>		
City:(*) <input type="text" value="Wingo"/>	State:(*) <input type="text" value="Kentucky"/>	Zip:(*) <input type="text" value="42088"/>
County:(*) <input type="text" value="Graves"/>	Latitude(decimal degrees)(*)DMS to DD Converter (https://www.fcc.gov/media/radio/dms-decimal) <input type="text" value="36.64583"/>	Longitude(decimal degrees)(*) <input type="text" value="88.75333"/>

SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION

Project Description:(*)

a. For single projects provide the following information

Total Number of Acres in Project:(✓) 82.79	Total Number of Acres Disturbed:(✓) 82.79
Anticipated Start Date:(✓) 10/1/2022	Anticipated Completion Date:(✓) 11/1/2024

b. For common plans of development provide the following information

Total Number of Acres in Project:(✓) # Acre(s)	Total Number of Acres Disturbed:(✓) # Acre(s)
Number of individual lots in development, if applicable:(✓) # lot(s)	Number of lots in development:(✓) # lot(s)
Total acreage of lots intended to be developed:(✓) Project Acres	Number of acres intended to be disturbed at any one time:(✓) Disturbed Acres
Anticipated Start Date:(✓)	Anticipated Completion Date:(✓)

List Building Contractor(s) at the time of Application:(*)

Company Name
+

SECTION IV -- IF THE PERMITTED SITE DISCHARGES TO A WATER BODY THE FOLLOWING INFORMATION IS REQUIRED ?

Discharge Point(s):

Unnamed Tributary?	Latitude	Longitude	Receiving Water Name
+ 			

SECTION V -- IF THE PERMITTED SITE DISCHARGES TO A MS4 THE FOLLOWING INFORMATION IS REQUIRED ?

Name of MS4: <input type="text"/>					
Date of application/notification to the MS4 for construction site permit coverage: Date	Discharge Point(s):(*) <table border="1"><thead><tr><th>Latitude</th><th>Longitude</th></tr></thead><tbody><tr><td>+ </td><td></td></tr></tbody></table>	Latitude	Longitude	+ 	
Latitude	Longitude				
+ 					

SECTION VI -- WILL THE PROJECT REQUIRE CONSTRUCTION ACTIVITIES IN A WATER BODY OR THE RIPARIAN ZONE?

Will the project require construction activities in a water body or the riparian zone?: (*)	<input type="text"/>
If Yes, describe scope of activity: (✓)	describe scope of activity
Is a Clean Water Act 404 permit required?:(*)	<input type="text"/>

Is a Clean Water Act 401 Water Quality Certification required?:(*)		<input type="text"/>	
SECTION VII -- NOI PREPARER INFORMATION			
First Name:(*) <input type="text"/>	M.I.: <input type="text"/>	Last Name:(*) <input type="text"/>	Company Name:(*) <input type="text"/>
Mailing Address:(*) <input type="text"/>	City:(*) <input type="text"/>	State:(*) <input type="text"/>	Zip:(*) <input type="text"/>
eMail Address:(*) <input type="text"/>	Business Phone:(*) <input type="text"/>	Alternate Phone: <input type="text"/>	
SECTION VIII -- ATTACHMENTS			
Facility Location Map:(*)	<input type="button" value="Upload file"/>		
Supplemental Information:	<input type="button" value="Upload file"/>		
SECTION IX -- CERTIFICATION			
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 gather and evaluate 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 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.			
Signature:(*) <input type="text"/>	Title:(*) <input type="text"/>		
First Name:(*) <input type="text"/>	M.I.: <input type="text"/>	Last Name:(*) <input type="text"/>	
eMail Address:(*) <input type="text"/>	Business Phone:(*) <input type="text"/>	Alternate Phone: <input type="text"/>	Signature Date:(*) <input type="text"/>
<input type="button" value="Click to Save Values for Future Retrieval"/> <input type="button" value="Click to Submit to EEC"/>			

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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

Reconstruct KY 339 Interchange on Jackson

Purchase Parkway at Wingo (Exit 14)

Graves County, KY

Project: PCN ##-####

KPDES BMP Plan Page 1 of 14

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Project information

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

1. Owner – Kentucky Transportation Cabinet, District 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) KY 339, Wingo KY 42088
6. Latitude/Longitude (project mid-point) 36^38'45"N, 88^45'12"W
7. County (project mid-point) - Graves
8. Project start date (date work will begin): (2)
9. Projected completion date: (2)

KYTC BMP Plan for Project CID 01 – 26.01

A. Site description:

1. Nature of Construction Activity (from letting project description) – Reconstruct the Interchange on KY 339 at the Purchase Parkway at Wingo
2. Order of major soil disturbing activities (2) and (3)
3. Projected volume of material to be moved 103,473 CY
4. Estimate of total project area (acres) 68.5 acres
5. Estimate of area to be disturbed (acres) 68.5 acres
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.
7. Data describing existing soil condition - The geologic mapping indicates that alluvial soils consisting of sand, silt, sandy gravel, and cherty rubble are present at the site.
8. Data describing existing discharge water quality (if any) (1) & (2)
9. Receiving water name – Cane Creek
10. TMDLs and Pollutants of Concern in Receiving Waters: (1 DEA)
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:

KYTC BMP Plan for Project CID 01 – 26.01

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)

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 - 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

KYTC BMP Plan for Project CID 01 – 26.01

- 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 : Channel Lining

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 Section 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.

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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:

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- 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 contact 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)

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

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the purpose of post construction storm water management with specific guidance for any non-routine maintenance. (1)

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 successfully completed the KEPSC-RI course as required by Section 213.02.02 of the Standard Specifications for Road and Bridge Construction, current edition.
- 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 50 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 re-seeded / 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.

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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 from 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;

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_____ 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.)

SPECIAL NOTE

Filing of eNOI for KPDES Construction Stormwater Permit

County: Graves

Route: KY 339/JPP

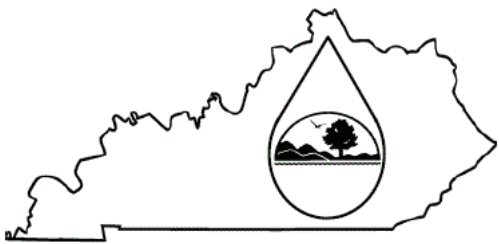
Item No.: 1-26.01

KDOW Submittal ID:

Project Description: Reconstruct KY 339 Interchange at Wingo

A Notice of Intent for obtaining coverage under the Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Stormwater Discharges Associated with Construction Activities (KYR10) has been drafted, copy of which is attached. Upon award, the Contractor will be identified in Section III of the form as the “Building Contractor” and it will be submitted for approval to the Kentucky Division of Water. The Contractor shall be responsible for advancing the work in a manner that is compliant with all applicable and appropriate KYTC specifications for sediment and erosion control as well as meeting the requirements of the KYR10 permit and the KDOW.

If there are any questions regarding this note, please contact Danny Peake, Director, Division of Environmental Analysis, TCOB, 200 Mero Street, Frankfort, KY 40622, Phone: (502) 564-7250.

	<h2 style="margin: 0;">KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)</h2> <p style="margin: 5px 0;">Notice of Intent (NOI) for coverage of Storm Water Discharge Associated with Construction Activities Under the KPDES Storm Water General Permit KYR100000</p> <p style="margin: 10px 0;"> Click here for Instructions (Controls/KPDES_FormKYR10_Instructions.htm) </p> <p style="margin: 5px 0;"> Click here to obtain information and a copy of the KPDES General Permit. (http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf) </p> <p style="margin: 0;">(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field</p>
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Reason for Submittal:(*) <input type="text" value="Application for New Permit Coverage"/>	Agency Interest ID: <input type="text" value="Agency Interest ID"/>	Permit Number:(✓) <input type="text" value="KPDES Permit Number"/>
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If change to existing permit coverage is requested, describe the changes for which modification of coverage is being sought:(✓)

ELIGIBILITY:
 Stormwater discharges associated with construction activities disturbing individually one (1) acre or more, including, in the case of a common plan of development, contiguous construction activities that cumulatively equal one (1) acre or more of disturbance.

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 INFORMATION (PERMITTEE)

Company Name:(✓) <input type="text" value="Kentucky Transportation Cabinet"/>	First Name:(✓) <input type="text" value="Kyle"/>	M.I.: <input type="text" value="M"/>	Last Name:(✓) <input type="text" value="Poat"/>
Mailing Address:(*) <input type="text" value="5501 KY Dam Road"/>	City:(*) <input type="text" value="Paducah"/>	State:(*) <input type="text" value="Kentucky"/>	Zip:(*) <input type="text" value="42003"/>
eMail Address:(*) <input type="text" value="kyle.poat@ky.gov"/>	Business Phone:(*) <input type="text" value="270-898-2431"/>	Alternate Phone: <input type="text" value="270-994-1910"/>	

SECTION II -- GENERAL SITE LOCATION INFORMATION

Project Name:(*) <input type="text" value="Upgrade Purchase Parkway to I-69"/>	Status of Owner/Operator(*) <input type="text" value="State Government"/>	SIC Code(*) <input type="text" value="1611 Highway and Street Cons"/>
Company Name:(✓) <input type="text" value="Kentucky Transportation Cabinet"/>	First Name:(✓) <input type="text" value="Kyle"/>	M.I.: <input type="text" value="M"/>
Last Name:(✓) <input type="text" value="Poat"/>		
Site Physical Address:(*) <input type="text" value="KY 339 and Purchase Parkway"/>		
City:(*) <input type="text" value="Wingo"/>	State:(*) <input type="text" value="Kentucky"/>	Zip:(*) <input type="text" value="42088"/>
County:(*) <input type="text" value="Graves"/>	Latitude(decimal degrees)(*)DMS to DD Converter (https://www.fcc.gov/media/radio/dms-decimal) <input type="text" value="36.64583"/>	Longitude(decimal degrees)(*) <input type="text" value="88.75333"/>

SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION

Project Description:(*)

a. For single projects provide the following information

Total Number of Acres in Project:(✓) 82.79	Total Number of Acres Disturbed:(✓) 82.79
Anticipated Start Date:(✓) 10/1/2022	Anticipated Completion Date:(✓) 11/1/2024

b. For common plans of development provide the following information

Total Number of Acres in Project:(✓) # Acre(s)	Total Number of Acres Disturbed:(✓) # Acre(s)
Number of individual lots in development, if applicable:(✓) # lot(s)	Number of lots in development:(✓) # lot(s)
Total acreage of lots intended to be developed:(✓) Project Acres	Number of acres intended to be disturbed at any one time:(✓) Disturbed Acres
Anticipated Start Date:(✓)	Anticipated Completion Date:(✓)

List Building Contractor(s) at the time of Application:(*)

Company Name
+

SECTION IV -- IF THE PERMITTED SITE DISCHARGES TO A WATER BODY THE FOLLOWING INFORMATION IS REQUIRED ?

Discharge Point(s):

Unnamed Tributary?	Latitude	Longitude	Receiving Water Name
+ 			

SECTION V -- IF THE PERMITTED SITE DISCHARGES TO A MS4 THE FOLLOWING INFORMATION IS REQUIRED ?

Name of MS4: <input type="text"/>					
Date of application/notification to the MS4 for construction site permit coverage: Date	Discharge Point(s):(*) <table border="1"> <thead> <tr> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>+ </td> <td></td> </tr> </tbody> </table>	Latitude	Longitude	+ 	
Latitude	Longitude				
+ 					

SECTION VI -- WILL THE PROJECT REQUIRE CONSTRUCTION ACTIVITIES IN A WATER BODY OR THE RIPARIAN ZONE?

Will the project require construction activities in a water body or the riparian zone?: (*)	<input type="text"/>
If Yes, describe scope of activity: (✓)	describe scope of activity
Is a Clean Water Act 404 permit required?:(*)	<input type="text"/>

Is a Clean Water Act 401 Water Quality Certification required?:(*)		<input type="text"/>	
SECTION VII -- NOI PREPARER INFORMATION			
First Name:(*) <input type="text"/>	M.I.: <input type="text"/>	Last Name:(*) <input type="text"/>	Company Name:(*) <input type="text"/>
Mailing Address:(*) <input type="text"/>	City:(*) <input type="text"/>	State:(*) <input type="text"/>	Zip:(*) <input type="text"/>
eMail Address:(*) <input type="text"/>	Business Phone:(*) <input type="text"/>	Alternate Phone: <input type="text"/>	
SECTION VIII -- ATTACHMENTS			
Facility Location Map:(*)	<input type="button" value="Upload file"/>		
Supplemental Information:	<input type="button" value="Upload file"/>		
SECTION IX -- CERTIFICATION			
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 gather and evaluate 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 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.			
Signature:(*) <input type="text"/>	Title:(*) <input type="text"/>		
First Name:(*) <input type="text"/>	M.I.: <input type="text"/>	Last Name:(*) <input type="text"/>	
eMail Address:(*) <input type="text"/>	Business Phone:(*) <input type="text"/>	Alternate Phone: <input type="text"/>	Signature Date:(*) <input type="text"/>
<input type="button" value="Click to Save Values for Future Retrieval"/> <input type="button" value="Click to Submit to EEC"/>			

SPECIAL NOTE

Pending U.S. Army Corps of Engineers 404 Permit KYTC Item #: 1-26

The contractor should be aware that for this project a Clean Water Act 404 permit has been submitted to the U.S. Army Corps of Engineers (USACE) and approval is currently pending. No work shall occur in a Water of the United States (stream or wetland) until the USACE 404 permit has been approved and secured. It is anticipated the permit will be secured within 60 days of award.

MATERIAL SUMMARY

CONTRACT ID: 221350

NHPP 0011 (038)

DE04290032237

JULIAN CARROLL PURCHASE PARKWAY (PW 9003) RECONSTRUCT THE WINGO (KY 339) INTERCHANGE ASPHALT PAVEMENT & ROADWAY REHAB, A DISTANCE OF .99 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0005	00003	CRUSHED STONE BASE	28,448.00	TON
0010	00005	GEOGRID REINFORCEMENT FOR SUBGRADE	42,304.00	SQYD
0015	00100	ASPHALT SEAL AGGREGATE	126.00	TON
0020	00103	ASPHALT SEAL COAT	15.00	TON
0025	00212	CL2 ASPH BASE 1.00D PG64-22	2,581.00	TON
0030	00214	CL3 ASPH BASE 1.00D PG64-22	3,026.00	TON
0035	00216	CL3 ASPH BASE 1.00D PG76-22	3,152.00	TON
0040	00309	CL2 ASPH SURF 0.50D PG64-22	2,590.00	TON
0045	00332	CL3 ASPH SURF 0.50A PG76-22	3,309.00	TON
0050	00356	ASPHALT MATERIAL FOR TACK	13.60	TON
0055	02602	FABRIC-GEOTEXTILE CLASS 1	42,304.00	SQYD
0060	02676	MOBILIZATION FOR MILL & TEXT - - GRAVES 1-26.01	1.00	LS
0065	02677	ASPHALT PAVE MILLING & TEXTURING	3,167.00	TON
0070	20071EC	JOINT ADHESIVE	16,118.00	LF
0075	20362ES403	SHOULDER RUMBLE STRIPS-SAWED	29,944.00	LF
0080	20550ND	SAWCUT PAVEMENT	6,058.00	LF
0085	01015	INSPECT & CERTIFY EDGE DRAIN SYSTEM - - GRAVES 1-26.01	1.00	LS
0090	01310	REMOVE PIPE	40.00	LF
0095	01825	ISLAND CURB AND GUTTER	50.00	LF
0100	01903	REMOVE CONCRETE ROLL CURB	8,331.00	LF
0105	01958	CONC MEDIAN BARRIER TYPE 12C1 TL3	157.00	LF
0110	01970	CONC MEDIAN BARRIER TYPE 12C TL3	20.00	LF
0115	01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	30.00	EACH
0120	01983	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL YELLOW	6.00	EACH
0125	01985	DELINEATOR FOR BARRIER - YELLOW	20.00	EACH
0130	02014	BARRICADE-TYPE III	2.00	EACH
0135	02091	REMOVE PAVEMENT	8,806.00	SQYD
0140	02159	TEMP DITCH	6,778.00	LF
0145	02160	CLEAN TEMP DITCH	3,389.00	LF
0150	02165	REMOVE PAVED DITCH	1,740.00	SQYD
0155	02220	FLOWABLE FILL	13.70	CUYD
0160	02230	EMBANKMENT IN PLACE	103,473.00	CUYD
0165	02262	FENCE-WOVEN WIRE TYPE 1	5,346.00	LF
0170	02265	REMOVE FENCE	3,585.00	LF
0175	02351	GUARDRAIL-STEEL W BEAM-S FACE	3,689.00	LF
0180	02359	GUARDRAIL CONNECTOR TO CONC MED BARR	3.00	EACH
0185	02367	GUARDRAIL END TREATMENT TYPE 1	7.00	EACH
0190	02369	GUARDRAIL END TREATMENT TYPE 2A	8.00	EACH
0195	02381	REMOVE GUARDRAIL	8,269.00	LF
0200	02396	REMOVE GUARDRAIL END TREATMENT	3.00	EACH
0205	02429	RIGHT-OF-WAY MONUMENT TYPE 1	20.00	EACH

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0210	02432	WITNESS POST	20.00	EACH
0215	02483	CHANNEL LINING CLASS II	1,289.00	TON
0220	02484	CHANNEL LINING CLASS III	493.00	TON
0225	02545	CLEARING AND GRUBBING - 68.5 ACRES/ GRAVES 1-26.01	1.00	LS
0230	02555	CONCRETE-CLASS B	8.99	CUYD
0235	02562	TEMPORARY SIGNS	1,011.00	SQFT
0240	02585	EDGE KEY	42.00	LF
0245	02607	FABRIC-GEOTEXTILE CLASS 2 FOR PIPE	1,905.00	SQYD
0250	02650	MAINTAIN & CONTROL TRAFFIC - - GRAVES 1-26.01	1.00	LS
0255	02653	LANE CLOSURE	3.00	EACH
0260	02671	PORTABLE CHANGEABLE MESSAGE SIGN	6.00	EACH
0265	02701	TEMP SILT FENCE	6,778.00	LF
0270	02703	SILT TRAP TYPE A	68.00	EACH
0275	02704	SILT TRAP TYPE B	68.00	EACH
0280	02705	SILT TRAP TYPE C	68.00	EACH
0285	02706	CLEAN SILT TRAP TYPE A	68.00	EACH
0290	02707	CLEAN SILT TRAP TYPE B	68.00	EACH
0295	02708	CLEAN SILT TRAP TYPE C	68.00	EACH
0300	02720	SIDEWALK-4 IN CONCRETE	38.00	SQYD
0305	02726	STAKING - - GRAVES 1-26.01	1.00	LS
0310	02775	ARROW PANEL	2.00	EACH
0315	03171	CONCRETE BARRIER WALL TYPE 9T	15,000.00	LF
0320	04940	REMOVE LIGHTING - -- GRAVES 1-26.01	1.00	LS
0325	05950	EROSION CONTROL BLANKET	7,810.00	SQYD
0330	05952	TEMP MULCH	221,905.00	SQYD
0335	05953	TEMP SEEDING AND PROTECTION	165,601.00	SQYD
0340	05963	INITIAL FERTILIZER	10.00	TON
0345	05964	MAINTENANCE FERTILIZER	17.10	TON
0350	05985	SEEDING AND PROTECTION	331,201.00	SQYD
0355	05992	AGRICULTURAL LIMESTONE	205.30	TON
0360	06401	FLEXIBLE DELINEATOR POST-M/W	103.00	EACH
0365	06404	FLEXIBLE DELINEATOR POST-M/Y	80.00	EACH
0370	06511	PAVE STRIPING-TEMP PAINT-6 IN	17,400.00	LF
0375	06514	PAVE STRIPING-PERM PAINT-4 IN	9,669.00	LF
0380	06542	PAVE STRIPING-THERMO-6 IN W	14,782.00	LF
0385	06543	PAVE STRIPING-THERMO-6 IN Y	13,135.00	LF
0390	06546	PAVE STRIPING-THERMO-12 IN W	1,912.00	LF
0395	06567	PAVE MARKING-THERMO STOP BAR-12IN	144.00	LF
0400	06592	PAVEMENT MARKER TYPE V-B W/R	50.00	EACH
0405	08100	CONCRETE-CLASS A	7.02	CUYD
0410	08150	STEEL REINFORCEMENT	386.00	LB
0415	08904	CRASH CUSHION TY VI CLASS C	2.00	EACH
0420	10020NS	FUEL ADJUSTMENT	70,287.00	DOLL
0425	10030NS	ASPHALT ADJUSTMENT	54,242.00	DOLL
0430	20318ES508	RELOCATE CONC BARRIER WALL	13,400.00	LF
0435	20738NS112	TEMP CRASH CUSHION	8.00	EACH
0440	21289ED	LONGITUDINAL EDGE KEY	7,471.00	LF
0445	23274EN11F	TURF REINFORCEMENT MAT 1	50.00	SQYD
0450	23322EC	AGGREGATE SIZE NO. 57	33.00	CUYD

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0455	23839EC	REMOVE CONCRETE MEDIAN	490.00	SQYD
0460	24489EC	INLAID PAVEMENT MARKER	1,753.00	EACH
0465	24679ED	PAVE MARK THERMO CHEVRON	359.00	SQFT
0470	24814EC	PIPELINE INSPECTION	1,291.00	LF
0475	26176ED	CONC MEDIAN BARRIER TYPE 12C2-42 IN	615.00	LF
0480	00078	CRUSHED AGGREGATE SIZE NO 2	9.00	TON
0485	00462	CULVERT PIPE-18 IN	357.00	LF
0490	00464	CULVERT PIPE-24 IN	237.00	LF
0495	00466	CULVERT PIPE-30 IN	108.00	LF
0500	00468	CULVERT PIPE-36 IN	356.00	LF
0505	00470	CULVERT PIPE-48 IN	165.00	LF
0510	00471	CULVERT PIPE-54 IN	55.00	LF
0515	00521	STORM SEWER PIPE-15 IN	71.00	LF
0520	00522	STORM SEWER PIPE-18 IN	107.00	LF
0525	00528	STORM SEWER PIPE-36 IN	56.00	LF
0530	01000	PERFORATED PIPE-4 IN	3,435.00	LF
0535	01010	NON-PERFORATED PIPE-4 IN	352.00	LF
0540	01020	PERF PIPE HEADWALL TY 1-4 IN	6.00	EACH
0545	01028	PERF PIPE HEADWALL TY 3-4 IN	1.00	EACH
0550	01032	PERF PIPE HEADWALL TY 4-4 IN	2.00	EACH
0555	01204	PIPE CULVERT HEADWALL-18 IN	5.00	EACH
0560	01208	PIPE CULVERT HEADWALL-24 IN	2.00	EACH
0565	01210	PIPE CULVERT HEADWALL-30 IN	2.00	EACH
0570	01212	PIPE CULVERT HEADWALL-36 IN	4.00	EACH
0575	01216	PIPE CULVERT HEADWALL-48 IN	2.00	EACH
0580	01440	SLOPED BOX INLET-OUTLET TYPE 1	2.00	EACH
0585	01451	S & F BOX INLET-OUTLET-24 IN	3.00	EACH
0590	01453	S & F BOX INLET-OUTLET-36 IN	1.00	EACH
0595	01456	CURB BOX INLET TYPE A	2.00	EACH
0600	01490	DROP BOX INLET TYPE 1	2.00	EACH
0605	01493	DROP BOX INLET TYPE 2	1.00	EACH
0610	01499	DROP BOX INLET TYPE 4	1.00	EACH
0615	01511	DROP BOX INLET TYPE 5D	1.00	EACH
0620	01650	JUNCTION BOX	2.00	EACH
0625	01767	MANHOLE TYPE C	1.00	EACH
0630	23610NC	CORED HOLE DRAINAGE BOX CON	4.00	EACH
0635	24026EC	PIPE CULVERT HEADWALL-54 IN	1.00	EACH
0640	02568	MOBILIZATION	1.00	LS
0645	02569	DEMOBILIZATION	1.00	LS

CONTRACT ID: 221350

NHPP 0011 (038)

DE12190032237

PURCHASE PARKWAY (PW 9003) RECONSTRUCT PARKWAY FROM SOUTH OF US51 INTERCHANGE TO CARDINAL ROAD NEAR MAYFIELD BRIDGE WITH GRADE & DRAIN, A DISTANCE OF 19.2 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0650	00003	CRUSHED STONE BASE	21,590.00	TON

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0655	00071	CRUSHED AGGREGATE SIZE NO 57	374.00	TON
0660	00078	CRUSHED AGGREGATE SIZE NO 2	5,183.00	TON
0665	00100	ASPHALT SEAL AGGREGATE	868.00	TON
0670	00103	ASPHALT SEAL COAT	105.00	TON
0675	00212	CL2 ASPH BASE 1.00D PG64-22	2,994.00	TON
0680	00214	CL3 ASPH BASE 1.00D PG64-22	88.00	TON
0685	00216	CL3 ASPH BASE 1.00D PG76-22	124.00	TON
0690	00301	CL2 ASPH SURF 0.38D PG64-22	395.00	TON
0695	00309	CL2 ASPH SURF 0.50D PG64-22	1,086.00	TON
0700	00326	CL3 ASPH SURF 0.50B PG76-22	1,490.00	TON
0705	00356	ASPHALT MATERIAL FOR TACK	9.00	TON
0710	00461	CULVERT PIPE-15 IN	256.00	LF
0715	00521	STORM SEWER PIPE-15 IN	191.00	LF
0720	00522	STORM SEWER PIPE-18 IN	4.00	LF
0725	01310	REMOVE PIPE	263.00	LF
0730	01505	DROP BOX INLET TYPE 5B	1.00	EACH
0735	01511	DROP BOX INLET TYPE 5D	1.00	EACH
0740	01585	REMOVE DROP BOX INLET	2.00	EACH
0745	01634	CAP CURB BOX INLET	1.00	EACH
0750	01650	JUNCTION BOX	2.00	EACH
0755	01691	FLUME INLET TYPE 2	5.00	EACH
0760	01705	REMOVE CURB & GUTTER BOX INLET	12.00	EACH
0765	01877	SPECIAL HEADER CURB	818.00	LF
0770	01903	REMOVE CONCRETE ROLL CURB	15,088.00	LF
0775	01955	CONC MEDIAN BARRIER TYPE 12C1	300.00	LF
0780	01970	CONC MEDIAN BARRIER TYPE 12C TL3	40.00	LF
0785	01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	195.00	EACH
0790	01983	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL YELLOW	51.00	EACH
0795	01985	DELINEATOR FOR BARRIER - YELLOW	12.00	EACH
0800	02003	RELOCATE TEMP CONC BARRIER	14,908.00	LF
0805	02014	BARRICADE-TYPE III	8.00	EACH
0810	02159	TEMP DITCH	4,833.00	LF
0815	02160	CLEAN TEMP DITCH	2,417.00	LF
0820	02200	ROADWAY EXCAVATION	15,790.00	CUYD
0825	02242	WATER	126.00	MGAL
0830	02351	GUARDRAIL-STEEL W BEAM-S FACE	20,389.50	LF
0835	02352	GUARDRAIL-STEEL W BEAM-D FACE	275.00	LF
0840	02360	GUARDRAIL TERMINAL SECTION NO 1	2.00	EACH
0845	02363	GUARDRAIL CONNECTOR TO BRIDGE END TY A	4.00	EACH
0850	02365	CRASH CUSHION TYPE IX-A	2.00	EACH
0855	02367	GUARDRAIL END TREATMENT TYPE 1	17.00	EACH
0860	02369	GUARDRAIL END TREATMENT TYPE 2A	11.00	EACH
0865	02381	REMOVE GUARDRAIL	20,878.00	LF
0870	02387	GUARDRAIL CONNECTOR TO BRIDGE END TY A-1	4.00	EACH
0875	02396	REMOVE GUARDRAIL END TREATMENT	16.00	EACH
0880	02483	CHANNEL LINING CLASS II	134.00	TON
0885	02545	CLEARING AND GRUBBING - - FULTON	1.00	LS
0890	02562	TEMPORARY SIGNS	608.00	SQFT
0895	02585	EDGE KEY	310.00	LF

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0900	02602	FABRIC-GEOTEXTILE CLASS 1	5,654.00	SQYD
0905	02607	FABRIC-GEOTEXTILE CLASS 2 FOR PIPE	251.00	SQYD
0910	02625	REMOVE HEADWALL	11.00	EACH
0915	02650	MAINTAIN & CONTROL TRAFFIC - - FULTON	1.00	LS
0920	02653	LANE CLOSURE	7.00	EACH
0925	02671	PORTABLE CHANGEABLE MESSAGE SIGN	6.00	EACH
0930	02676	MOBILIZATION FOR MILL & TEXT - - FULTON	1.00	LS
0935	02677	ASPHALT PAVE MILLING & TEXTURING	1,222.00	TON
0940	02690	SAFELOADING	3.00	CUYD
0945	02696	SHOULDER RUMBLE STRIPS	20,492.00	LF
0950	02701	TEMP SILT FENCE	5,876.00	LF
0955	02703	SILT TRAP TYPE A	12.00	EACH
0960	02704	SILT TRAP TYPE B	12.00	EACH
0965	02705	SILT TRAP TYPE C	12.00	EACH
0970	02706	CLEAN SILT TRAP TYPE A	36.00	EACH
0975	02707	CLEAN SILT TRAP TYPE B	36.00	EACH
0980	02708	CLEAN SILT TRAP TYPE C	36.00	EACH
0985	02709	CLEAN TEMP SILT FENCE	3,129.00	LF
0990	02720	SIDEWALK-4 IN CONCRETE	335.00	SQYD
0995	02726	STAKING - - FULTON	1.00	LS
1000	02775	ARROW PANEL	6.00	EACH
1005	03171	CONCRETE BARRIER WALL TYPE 9T	14,908.00	LF
1010	05950	EROSION CONTROL BLANKET	2,047.00	SQYD
1015	05952	TEMP MULCH	40,692.00	SQYD
1020	05953	TEMP SEEDING AND PROTECTION	26,501.00	SQYD
1025	05963	INITIAL FERTILIZER	4.00	TON
1030	05964	MAINTENANCE FERTILIZER	7.00	TON
1035	05985	SEEDING AND PROTECTION	54,998.00	SQYD
1040	05992	AGRICULTURAL LIMESTONE	40.00	TON
1045	06401	FLEXIBLE DELINEATOR POST-M/W	204.00	EACH
1050	06404	FLEXIBLE DELINEATOR POST-M/Y	139.00	EACH
1055	06511	PAVE STRIPING-TEMP PAINT-6 IN	17,126.00	LF
1060	06542	PAVE STRIPING-THERMO-6 IN W	9,856.00	LF
1065	06543	PAVE STRIPING-THERMO-6 IN Y	10,276.00	LF
1070	06546	PAVE STRIPING-THERMO-12 IN W	2,346.00	LF
1075	06567	PAVE MARKING-THERMO STOP BAR-12IN	160.00	LF
1080	06592	PAVEMENT MARKER TYPE V-B W/R	58.00	EACH
1085	06613	INLAID PAVEMENT MARKER-B W/R	380.00	EACH
1090	08100	CONCRETE-CLASS A	14.00	CUYD
1095	08150	STEEL REINFORCEMENT	652.00	LB
1100	08904	CRASH CUSHION TY VI CLASS C	4.00	EACH
1105	10020NS	FUEL ADJUSTMENT	22,420.00	DOLL
1110	10030NS	ASPHALT ADJUSTMENT	30,581.00	DOLL
1115	20465EC	CLEAN CULVERT - - FULTON	1.00	LS
1120	20521NS719	REMOVE BRIDGE END CONNECTOR	8.00	EACH
1125	20550ND	SAWCUT PAVEMENT	9,152.00	LF
1130	20738NS112	TEMP CRASH CUSHION	4.00	EACH
1135	21289ED	LONGITUDINAL EDGE KEY	19,701.00	LF
1140	24814EC	PIPELINE INSPECTION	215.00	LF
1145	26176ED	CONC MEDIAN BARRIER TYPE 12C2-42 IN	1,296.00	LF

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
1150	40074	ASPHALT LEVELING AND WEDGING	128.00	TON
1155	00001	DGA BASE	113.00	TON
1160	00003	CRUSHED STONE BASE	5,471.00	TON
1165	00071	CRUSHED AGGREGATE SIZE NO 57	568.00	TON
1170	00078	CRUSHED AGGREGATE SIZE NO 2	10,624.00	TON
1175	00100	ASPHALT SEAL AGGREGATE	90.00	TON
1180	00103	ASPHALT SEAL COAT	12.00	TON
1185	00212	CL2 ASPH BASE 1.00D PG64-22	1,314.00	TON
1190	00301	CL2 ASPH SURF 0.38D PG64-22	591.00	TON
1195	00309	CL2 ASPH SURF 0.50D PG64-22	49.00	TON
1200	00356	ASPHALT MATERIAL FOR TACK	2.00	TON
1205	00461	CULVERT PIPE-15 IN	620.00	LF
1210	00462	CULVERT PIPE-18 IN	219.00	LF
1215	00521	STORM SEWER PIPE-15 IN	120.00	LF
1220	01310	REMOVE PIPE	12.00	LF
1225	01480	CURB BOX INLET TYPE B	6.00	EACH
1230	01505	DROP BOX INLET TYPE 5B	4.00	EACH
1235	01585	REMOVE DROP BOX INLET	10.00	EACH
1240	01650	JUNCTION BOX	4.00	EACH
1245	01691	FLUME INLET TYPE 2	5.00	EACH
1250	01877	SPECIAL HEADER CURB	2,435.00	LF
1255	01955	CONC MEDIAN BARRIER TYPE 12C1	600.00	LF
1260	01970	CONC MEDIAN BARRIER TYPE 12C TL3	80.00	LF
1265	01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	209.00	EACH
1270	01985	DELINEATOR FOR BARRIER - YELLOW	24.00	EACH
1275	02003	RELOCATE TEMP CONC BARRIER	8,000.00	LF
1280	02014	BARRICADE-TYPE III	8.00	EACH
1285	02165	REMOVE PAVED DITCH	1,730.00	SQYD
1290	02200	ROADWAY EXCAVATION	5,672.00	CUYD
1295	02242	WATER	124.00	MGAL
1300	02351	GUARDRAIL-STEEL W BEAM-S FACE	18,783.00	LF
1305	02360	GUARDRAIL TERMINAL SECTION NO 1	2.00	EACH
1310	02363	GUARDRAIL CONNECTOR TO BRIDGE END TY A	12.00	EACH
1315	02367	GUARDRAIL END TREATMENT TYPE 1	26.00	EACH
1320	02369	GUARDRAIL END TREATMENT TYPE 2A	26.00	EACH
1325	02381	REMOVE GUARDRAIL	19,845.00	LF
1330	02387	GUARDRAIL CONNECTOR TO BRIDGE END TY A-1	12.00	EACH
1335	02396	REMOVE GUARDRAIL END TREATMENT	103.00	EACH
1340	02483	CHANNEL LINING CLASS II	2,663.00	TON
1345	02484	CHANNEL LINING CLASS III	70.00	TON
1350	02545	CLEARING AND GRUBBING - - HICKMAN	1.00	LS
1355	02555	CONCRETE-CLASS B	4.00	CUYD
1360	02562	TEMPORARY SIGNS	640.00	SQFT
1365	02602	FABRIC-GEOTEXTILE CLASS 1	15,439.00	SQYD
1370	02607	FABRIC-GEOTEXTILE CLASS 2 FOR PIPE	1,038.00	SQYD
1375	02625	REMOVE HEADWALL	6.00	EACH
1380	02650	MAINTAIN & CONTROL TRAFFIC - - HICKMAN	1.00	LS
1385	02653	LANE CLOSURE	10.00	EACH
1390	02671	PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
1395	02676	MOBILIZATION FOR MILL & TEXT - - HICKMAN	1.00	LS
1400	02677	ASPHALT PAVE MILLING & TEXTURING	130.00	TON
1405	02690	SAFELOADING	4.00	CUYD
1410	02696	SHOULDER RUMBLE STRIPS	5,918.00	LF
1415	02701	TEMP SILT FENCE	3,020.00	LF
1420	02703	SILT TRAP TYPE A	6.00	EACH
1425	02704	SILT TRAP TYPE B	4.00	EACH
1430	02705	SILT TRAP TYPE C	4.00	EACH
1435	02706	CLEAN SILT TRAP TYPE A	18.00	EACH
1440	02707	CLEAN SILT TRAP TYPE B	12.00	EACH
1445	02708	CLEAN SILT TRAP TYPE C	12.00	EACH
1450	02709	CLEAN TEMP SILT FENCE	9,060.00	LF
1455	02720	SIDEWALK-4 IN CONCRETE	699.00	SQYD
1460	02726	STAKING - - HICKMAN	1.00	LS
1465	02775	ARROW PANEL	10.00	EACH
1470	03171	CONCRETE BARRIER WALL TYPE 9T	8,000.00	LF
1475	03304	BRIDGE OVERLAY APPROACH PAVEMENT	194.00	SQYD
1480	05952	TEMP MULCH	10,654.00	SQYD
1485	05953	TEMP SEEDING AND PROTECTION	10,654.00	SQYD
1490	05963	INITIAL FERTILIZER	3.00	TON
1495	05964	MAINTENANCE FERTILIZER	3.00	TON
1500	05985	SEEDING AND PROTECTION	4,695.00	SQYD
1505	05992	AGRICULTURAL LIMESTONE	9.00	TON
1510	06543	PAVE STRIPING-THERMO-6 IN Y	5,918.00	LF
1515	08100	CONCRETE-CLASS A	28.00	CUYD
1520	08150	STEEL REINFORCEMENT	1,364.00	LB
1525	08904	CRASH CUSHION TY VI CLASS C	8.00	EACH
1530	10020NS	FUEL ADJUSTMENT	7,533.00	DOLL
1535	10030NS	ASPHALT ADJUSTMENT	9,602.00	DOLL
1540	20465EC	CLEAN CULVERT - - HICKMAN	1.00	LS
1545	20550ND	SAWCUT PAVEMENT	594.00	LF
1550	20738NS112	TEMP CRASH CUSHION	8.00	EACH
1555	21289ED	LONGITUDINAL EDGE KEY	6,240.00	LF
1560	24787EN	SHEET PILING	1,232.00	SQFT
1565	24814EC	PIPELINE INSPECTION	970.00	LF
1570	26176ED	CONC MEDIAN BARRIER TYPE 12C2-42 IN	2,376.00	LF
1575	40047	SODDING	92.00	SQYD
1580	00001	DGA BASE	253.00	TON
1585	00003	CRUSHED STONE BASE	13,030.00	TON
1590	00071	CRUSHED AGGREGATE SIZE NO 57	1,185.00	TON
1595	00078	CRUSHED AGGREGATE SIZE NO 2	15,325.00	TON
1600	00100	ASPHALT SEAL AGGREGATE	218.00	TON
1605	00103	ASPHALT SEAL COAT	28.00	TON
1610	00212	CL2 ASPH BASE 1.00D PG64-22	3,638.00	TON
1615	00301	CL2 ASPH SURF 0.38D PG64-22	1,388.00	TON
1620	00309	CL2 ASPH SURF 0.50D PG64-22	411.00	TON
1625	00332	CL3 ASPH SURF 0.50A PG76-22	5,360.00	TON
1630	00356	ASPHALT MATERIAL FOR TACK	4.00	TON
1635	00440	ENTRANCE PIPE-15 IN	42.00	LF
1640	00461	CULVERT PIPE-15 IN	801.00	LF

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
1645	00462	CULVERT PIPE-18 IN	299.00	LF
1650	00474	CULVERT PIPE-72 IN	44.00	LF
1655	00521	STORM SEWER PIPE-15 IN	379.00	LF
1660	00522	STORM SEWER PIPE-18 IN	240.00	LF
1665	01202	PIPE CULVERT HEADWALL-15 IN	4.00	EACH
1670	01310	REMOVE PIPE	87.00	LF
1675	01480	CURB BOX INLET TYPE B	10.00	EACH
1680	01505	DROP BOX INLET TYPE 5B	4.00	EACH
1685	01511	DROP BOX INLET TYPE 5D	2.00	EACH
1690	01517	DROP BOX INLET TYPE 5F	1.00	EACH
1695	01585	REMOVE DROP BOX INLET	28.00	EACH
1700	01650	JUNCTION BOX	7.00	EACH
1705	01655	REMOVE JUNCTION BOX	1.00	EACH
1710	01690	FLUME INLET TYPE 1	4.00	EACH
1715	01691	FLUME INLET TYPE 2	43.00	EACH
1720	01877	SPECIAL HEADER CURB	18,944.00	LF
1725	01955	CONC MEDIAN BARRIER TYPE 12C1	900.00	LF
1730	01970	CONC MEDIAN BARRIER TYPE 12C TL3	120.00	LF
1735	01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	523.00	EACH
1740	01985	DELINEATOR FOR BARRIER - YELLOW	37.00	EACH
1745	02003	RELOCATE TEMP CONC BARRIER	12,000.00	LF
1750	02014	BARRICADE-TYPE III	12.00	EACH
1755	02165	REMOVE PAVED DITCH	640.00	SQYD
1760	02200	ROADWAY EXCAVATION	8,979.00	CUYD
1765	02242	WATER	124.00	MGAL
1770	02351	GUARDRAIL-STEEL W BEAM-S FACE	46,437.00	LF
1775	02352	GUARDRAIL-STEEL W BEAM-D FACE	1,100.00	LF
1780	02360	GUARDRAIL TERMINAL SECTION NO 1	13.00	EACH
1785	02363	GUARDRAIL CONNECTOR TO BRIDGE END TY A	46.00	EACH
1790	02365	CRASH CUSHION TYPE IX-A	8.00	EACH
1795	02367	GUARDRAIL END TREATMENT TYPE 1	52.00	EACH
1800	02369	GUARDRAIL END TREATMENT TYPE 2A	51.00	EACH
1805	02381	REMOVE GUARDRAIL	49,164.00	LF
1810	02387	GUARDRAIL CONNECTOR TO BRIDGE END TY A-1	46.00	EACH
1815	02396	REMOVE GUARDRAIL END TREATMENT	103.00	EACH
1820	02483	CHANNEL LINING CLASS II	2,010.00	TON
1825	02484	CHANNEL LINING CLASS III	311.00	TON
1830	02545	CLEARING AND GRUBBING - - GRAVES	1.00	LS
1835	02555	CONCRETE-CLASS B	24.00	CUYD
1840	02562	TEMPORARY SIGNS	960.00	SQFT
1845	02602	FABRIC-GEOTEXTILE CLASS 1	19,369.00	SQYD
1850	02607	FABRIC-GEOTEXTILE CLASS 2 FOR PIPE	1,784.00	SQYD
1855	02625	REMOVE HEADWALL	13.00	EACH
1860	02650	MAINTAIN & CONTROL TRAFFIC - - GRAVES	1.00	LS
1865	02653	LANE CLOSURE	15.00	EACH
1870	02671	PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH
1875	02676	MOBILIZATION FOR MILL & TEXT - - GRAVES	1.00	LS
1880	02677	ASPHALT PAVE MILLING & TEXTURING	1,096.00	TON
1885	02690	SAFELOADING	14.00	CUYD

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
1890	02696	SHOULDER RUMBLE STRIPS	8,880.00	LF
1895	02701	TEMP SILT FENCE	4,181.00	LF
1900	02703	SILT TRAP TYPE A	7.00	EACH
1905	02704	SILT TRAP TYPE B	6.00	EACH
1910	02705	SILT TRAP TYPE C	6.00	EACH
1915	02706	CLEAN SILT TRAP TYPE A	21.00	EACH
1920	02707	CLEAN SILT TRAP TYPE B	18.00	EACH
1925	02708	CLEAN SILT TRAP TYPE C	18.00	EACH
1930	02709	CLEAN TEMP SILT FENCE	12,543.00	LF
1935	02720	SIDEWALK-4 IN CONCRETE	1,300.00	SQYD
1940	02726	STAKING - - GRAVES	1.00	LS
1945	02775	ARROW PANEL	14.00	EACH
1950	03171	CONCRETE BARRIER WALL TYPE 9T	12,000.00	LF
1955	03304	BRIDGE OVERLAY APPROACH PAVEMENT	832.00	SQYD
1960	05950	EROSION CONTROL BLANKET	3,640.00	SQYD
1965	05952	TEMP MULCH	15,507.00	SQYD
1970	05953	TEMP SEEDING AND PROTECTION	15,507.00	SQYD
1975	05963	INITIAL FERTILIZER	5.00	TON
1980	05964	MAINTENANCE FERTILIZER	5.00	TON
1985	05985	SEEDING AND PROTECTION	8,275.00	SQYD
1990	05992	AGRICULTURAL LIMESTONE	15.00	TON
1995	06543	PAVE STRIPING-THERMO-6 IN Y	8,880.00	LF
2000	08100	CONCRETE-CLASS A	42.00	CUYD
2005	08150	STEEL REINFORCEMENT	2,248.00	LB
2010	08904	CRASH CUSHION TY VI CLASS C	12.00	EACH
2015	10020NS	FUEL ADJUSTMENT	7,533.00	DOLL
2020	10030NS	ASPHALT ADJUSTMENT	9,602.00	DOLL
2025	20465EC	CLEAN CULVERT - - GRAVES	1.00	LS
2030	20521NS719	REMOVE BRIDGE END CONNECTOR	32.00	EACH
2035	20550ND	SAWCUT PAVEMENT	1,689.00	LF
2040	20738NS112	TEMP CRASH CUSHION	12.00	EACH
2045	21289ED	LONGITUDINAL EDGE KEY	8,040.00	LF
2050	23274EN11F	TURF REINFORCEMENT MAT 1	260.00	SQYD
2055	23804EC	CONC MED BARRIER BOX INLET-TY 12A1	1.00	EACH
2060	23976EC	CONC MED BARR BOX INLET TY 12A2-50(MOD)	1.00	EACH
2065	24787EN	SHEET PILING	3,301.00	SQFT
2070	24814EC	PIPELINE INSPECTION	1,769.00	LF
2075	26176ED	CONC MEDIAN BARRIER TYPE 12C2-42 IN	4,276.00	LF
2080	02003	RELOCATE TEMP CONC BARRIER	800.00	LF
2085	02650	MAINTAIN & CONTROL TRAFFIC - 038B00055	1.00	LS
2090	02653	LANE CLOSURE	4.00	EACH
2095	02775	ARROW PANEL	4.00	EACH
2100	02898	RELOCATE CRASH CUSHION	4.00	EACH
2105	02900	INSTALL TEMP CRASH CUSHION	4.00	EACH
2110	03171	CONCRETE BARRIER WALL TYPE 9T	800.00	LF
2115	06514	PAVE STRIPING-PERM PAINT-4 IN	7,000.00	LF
2120	06549	PAVE STRIPING-TEMP REM TAPE-B	1,000.00	LF
2125	06550	PAVE STRIPING-TEMP REM TAPE-W	3,250.00	LF
2130	06551	PAVE STRIPING-TEMP REM TAPE-Y	3,250.00	LF
2135	22146EN	CONCRETE PATCHING REPAIR	280.00	SQFT

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
2140	23032EN	BRIDGE BARRIER RETROFIT	2,146.70	LF
2145	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE - 038B00055 NB & SB	1.00	LS
2150	24981EC	BRIDGE CLEANING - 038B00055 NB & SB	1.00	LS
2155	02003	RELOCATE TEMP CONC BARRIER	800.00	LF
2160	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
2165	02653	LANE CLOSURE	4.00	EACH
2170	02775	ARROW PANEL	4.00	EACH
2175	02898	RELOCATE CRASH CUSHION	4.00	EACH
2180	02900	INSTALL TEMP CRASH CUSHION	4.00	EACH
2185	03171	CONCRETE BARRIER WALL TYPE 9T	800.00	LF
2190	06514	PAVE STRIPING-PERM PAINT-4 IN	6,450.00	LF
2195	06549	PAVE STRIPING-TEMP REM TAPE-B	400.00	LF
2200	06550	PAVE STRIPING-TEMP REM TAPE-W	3,000.00	LF
2205	06551	PAVE STRIPING-TEMP REM TAPE-Y	3,000.00	LF
2210	22146EN	CONCRETE PATCHING REPAIR	80.00	SQFT
2215	23032EN	BRIDGE BARRIER RETROFIT	1,311.60	LF
2220	23378EC	CONCRETE SEALING	6,607.80	SQFT
2225	23386EC	JOINT SEAL REPLACEMENT	127.80	LF
2230	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE - 042B00170 NB & SB	1.00	LS
2235	24094EC	PARTIAL DEPTH PATCHING	24.40	CUYD
2240	24981EC	BRIDGE CLEANING - 042B00170 NB & SB	1.00	LS
2245	02003	RELOCATE TEMP CONC BARRIER	800.00	LF
2250	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
2255	02653	LANE CLOSURE	4.00	EACH
2260	02775	ARROW PANEL	4.00	EACH
2265	02898	RELOCATE CRASH CUSHION	4.00	EACH
2270	02900	INSTALL TEMP CRASH CUSHION	4.00	EACH
2275	03171	CONCRETE BARRIER WALL TYPE 9T	800.00	LF
2280	06514	PAVE STRIPING-PERM PAINT-4 IN	5,200.00	LF
2285	06549	PAVE STRIPING-TEMP REM TAPE-B	1,350.00	LF
2290	06550	PAVE STRIPING-TEMP REM TAPE-W	1,400.00	LF
2295	06551	PAVE STRIPING-TEMP REM TAPE-Y	1,400.00	LF
2300	08504	EPOXY SAND SLURRY	51.80	SQYD
2305	08526	CONC CLASS M FULL DEPTH PATCH	5.00	CUYD
2310	08534	CONCRETE OVERLAY-LATEX	18.60	CUYD
2315	08549	BLAST CLEANING	588.00	SQYD
2320	08551	MACHINE PREP OF SLAB	537.00	SQYD
2325	22146EN	CONCRETE PATCHING REPAIR	80.00	SQFT
2330	23032EN	BRIDGE BARRIER RETROFIT	578.80	LF
2335	23378EC	CONCRETE SEALING	2,664.00	SQFT
2340	23386EC	JOINT SEAL REPLACEMENT	76.00	LF
2345	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE - 042B00173 NB & SB	1.00	LS
2350	24094EC	PARTIAL DEPTH PATCHING	12.60	CUYD
2355	24981EC	BRIDGE CLEANING - 042B00173 NB & SB	1.00	LS
2360	02003	RELOCATE TEMP CONC BARRIER	800.00	LF
2365	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
2370	02653	LANE CLOSURE	4.00	EACH
2375	02775	ARROW PANEL	4.00	EACH

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
2380	02898	RELOCATE CRASH CUSHION	4.00	EACH
2385	02900	INSTALL TEMP CRASH CUSHION	4.00	EACH
2390	03171	CONCRETE BARRIER WALL TYPE 9T	800.00	LF
2395	06514	PAVE STRIPING-PERM PAINT-4 IN	3,530.00	LF
2400	06549	PAVE STRIPING-TEMP REM TAPE-B	840.00	LF
2405	06550	PAVE STRIPING-TEMP REM TAPE-W	2,690.00	LF
2410	06551	PAVE STRIPING-TEMP REM TAPE-Y	2,690.00	LF
2415	22146EN	CONCRETE PATCHING REPAIR	80.00	SQFT
2420	23032EN	BRIDGE BARRIER RETROFIT	917.00	LF
2425	23378EC	CONCRETE SEALING	4,163.40	SQFT
2430	23386EC	JOINT SEAL REPLACEMENT	152.00	LF
2435	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE - 042B00176 NB & SB	1.00	LS
2440	24094EC	PARTIAL DEPTH PATCHING	20.80	CUYD
2445	24981EC	BRIDGE CLEANING - 042B00176 NB & SB	1.00	LS
2450	02003	RELOCATE TEMP CONC BARRIER	800.00	LF
2455	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
2460	02653	LANE CLOSURE	4.00	EACH
2465	02775	ARROW PANEL	4.00	EACH
2470	02898	RELOCATE CRASH CUSHION	4.00	EACH
2475	02900	INSTALL TEMP CRASH CUSHION	4.00	EACH
2480	03171	CONCRETE BARRIER WALL TYPE 9T	800.00	LF
2485	06514	PAVE STRIPING-PERM PAINT-4 IN	6,150.00	LF
2490	06549	PAVE STRIPING-TEMP REM TAPE-B	640.00	LF
2495	06550	PAVE STRIPING-TEMP REM TAPE-W	2,705.00	LF
2500	06551	PAVE STRIPING-TEMP REM TAPE-Y	2,705.00	LF
2505	08504	EPOXY SAND SLURRY	265.80	SQYD
2510	08526	CONC CLASS M FULL DEPTH PATCH	10.00	CUYD
2515	08534	CONCRETE OVERLAY-LATEX	61.80	CUYD
2520	08549	BLAST CLEANING	2,048.00	SQYD
2525	08551	MACHINE PREP OF SLAB	1,782.00	SQYD
2530	22146EN	CONCRETE PATCHING REPAIR	80.00	SQFT
2535	23032EN	BRIDGE BARRIER RETROFIT	929.60	LF
2540	23378EC	CONCRETE SEALING	4,213.80	SQFT
2545	23386EC	JOINT SEAL REPLACEMENT	215.00	LF
2550	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE - 042B00177 NB & SB	1.00	LS
2555	24094EC	PARTIAL DEPTH PATCHING	22.30	CUYD
2560	24981EC	BRIDGE CLEANING - 042B00177 NB & SB	1.00	LS
2565	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
2570	02653	LANE CLOSURE	2.00	EACH
2575	04933	TEMP SIGNAL 2 PHASE	1.00	EACH
2580	06549	PAVE STRIPING-TEMP REM TAPE-B	300.00	LF
2585	06550	PAVE STRIPING-TEMP REM TAPE-W	2,700.00	LF
2590	06551	PAVE STRIPING-TEMP REM TAPE-Y	2,700.00	LF
2595	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS
2600	24522EC	REPAIR - ALUMINUM RAILING	1.00	LS
2605	24522EC	REPAIR - EROSION AT ABUTMENTS	1.00	LS
2610	24981EC	BRIDGE CLEANING - 038B00012	1.00	LS
2615	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
2620	02653	LANE CLOSURE	2.00	EACH

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
2625	03298	EXPAN JOINT REPLACE 4 IN	100.20	LF
2630	04933	TEMP SIGNAL 2 PHASE	1.00	EACH
2635	06549	PAVE STRIPING-TEMP REM TAPE-B	200.00	LF
2640	06550	PAVE STRIPING-TEMP REM TAPE-W	2,680.00	LF
2645	06551	PAVE STRIPING-TEMP REM TAPE-Y	2,680.00	LF
2650	08526	CONC CLASS M FULL DEPTH PATCH	2.00	CUYD
2655	22146EN	CONCRETE PATCHING REPAIR	8.00	SQFT
2660	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS
2665	24094EC	PARTIAL DEPTH PATCHING	9.80	CUYD
2670	24981EC	BRIDGE CLEANING - 038B00015	1.00	LS
2675	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
2680	02653	LANE CLOSURE	2.00	EACH
2685	03298	EXPAN JOINT REPLACE 4 IN	60.00	LF
2690	04933	TEMP SIGNAL 2 PHASE	1.00	EACH
2695	06549	PAVE STRIPING-TEMP REM TAPE-B	1,980.00	LF
2700	06550	PAVE STRIPING-TEMP REM TAPE-W	2,750.00	LF
2705	06551	PAVE STRIPING-TEMP REM TAPE-Y	2,750.00	LF
2710	08504	EPOXY SAND SLURRY	175.40	SQYD
2715	08526	CONC CLASS M FULL DEPTH PATCH	2.00	CUYD
2720	08534	CONCRETE OVERLAY-LATEX	23.70	CUYD
2725	08549	BLAST CLEANING	859.00	SQYD
2730	08551	MACHINE PREP OF SLAB	684.00	SQYD
2735	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS
2740	24094EC	PARTIAL DEPTH PATCHING	8.10	CUYD
2745	24981EC	BRIDGE CLEANING - 053B00068	1.00	LS
2750	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
2755	02653	LANE CLOSURE	2.00	EACH
2760	04933	TEMP SIGNAL 2 PHASE	1.00	EACH
2765	06549	PAVE STRIPING-TEMP REM TAPE-B	2,730.00	LF
2770	06550	PAVE STRIPING-TEMP REM TAPE-W	1,365.00	LF
2775	06551	PAVE STRIPING-TEMP REM TAPE-Y	1,365.00	LF
2780	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS
2785	24522EC	REPAIR - ALUMINUM RAIL	1.00	LS
2790	24981EC	BRIDGE CLEANING - 053B00050	1.00	LS
2795	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
2800	02653	LANE CLOSURE	2.00	EACH
2805	03298	EXPAN JOINT REPLACE 4 IN	52.60	LF
2810	04933	TEMP SIGNAL 2 PHASE	1.00	EACH
2815	06549	PAVE STRIPING-TEMP REM TAPE-B	2,680.00	LF
2820	06550	PAVE STRIPING-TEMP REM TAPE-W	1,340.00	LF
2825	06551	PAVE STRIPING-TEMP REM TAPE-Y	1,340.00	LF
2830	08504	EPOXY SAND SLURRY	151.20	SQYD
2835	08526	CONC CLASS M FULL DEPTH PATCH	5.00	CUYD
2840	08534	CONCRETE OVERLAY-LATEX	20.50	CUYD
2845	08549	BLAST CLEANING	741.00	SQYD
2850	08551	MACHINE PREP OF SLAB	590.00	SQYD
2855	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS
2860	24094EC	PARTIAL DEPTH PATCHING	7.00	CUYD
2865	24522EC	REPAIR - EROSION AT ABUTMENTS	1.00	LS
2870	24981EC	BRIDGE CLEANING - 053B00056	1.00	LS

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
2875	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
2880	02653	LANE CLOSURE	2.00	EACH
2885	04933	TEMP SIGNAL 2 PHASE	1.00	EACH
2890	06549	PAVE STRIPING-TEMP REM TAPE-B	2,810.00	LF
2895	06550	PAVE STRIPING-TEMP REM TAPE-W	1,405.00	LF
2900	06551	PAVE STRIPING-TEMP REM TAPE-Y	1,405.00	LF
2905	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS
2910	24981EC	BRIDGE CLEANING - 053B00102	1.00	LS
2915	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
2920	02653	LANE CLOSURE	2.00	EACH
2925	03298	EXPAN JOINT REPLACE 4 IN	55.00	LF
2930	03299	ARMORED EDGE FOR CONCRETE	55.00	LF
2935	04933	TEMP SIGNAL 2 PHASE	1.00	EACH
2940	06550	PAVE STRIPING-TEMP REM TAPE-W	1,350.00	LF
2945	06551	PAVE STRIPING-TEMP REM TAPE-Y	1,350.00	LF
2950	08504	EPOXY SAND SLURRY	155.70	SQYD
2955	08526	CONC CLASS M FULL DEPTH PATCH	5.00	CUYD
2960	08534	CONCRETE OVERLAY-LATEX	21.10	CUYD
2965	08549	BLAST CLEANING	763.00	SQYD
2970	08551	MACHINE PREP OF SLAB	607.00	SQYD
2975	22146EN	CONCRETE PATCHING REPAIR	12.00	SQFT
2980	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS
2985	24094EC	PARTIAL DEPTH PATCHING	8.40	CUYD
2990	24981EC	BRIDGE CLEANING - 042B00171	1.00	LS
2995	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
3000	02653	LANE CLOSURE	2.00	EACH
3005	03298	EXPAN JOINT REPLACE 4 IN	63.50	LF
3010	04933	TEMP SIGNAL 2 PHASE	1.00	EACH
3015	06549	PAVE STRIPING-TEMP REM TAPE-B	2,690.00	LF
3020	06550	PAVE STRIPING-TEMP REM TAPE-W	1,345.00	LF
3025	06551	PAVE STRIPING-TEMP REM TAPE-Y	1,345.00	LF
3030	22146EN	CONCRETE PATCHING REPAIR	5.00	SQFT
3035	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS
3040	24094EC	PARTIAL DEPTH PATCHING	8.20	CUYD
3045	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
3050	02653	LANE CLOSURE	2.00	EACH
3055	03298	EXPAN JOINT REPLACE 4 IN	58.80	LF
3060	03299	ARMORED EDGE FOR CONCRETE	58.80	LF
3065	04933	TEMP SIGNAL 2 PHASE	1.00	EACH
3070	06549	PAVE STRIPING-TEMP REM TAPE-B	2,730.00	LF
3075	06550	PAVE STRIPING-TEMP REM TAPE-W	1,365.00	LF
3080	06551	PAVE STRIPING-TEMP REM TAPE-Y	1,365.00	LF
3085	22146EN	CONCRETE PATCHING REPAIR	64.00	SQFT
3090	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS
3095	24094EC	PARTIAL DEPTH PATCHING	9.10	CUYD
3100	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
3105	02653	LANE CLOSURE	2.00	EACH
3110	03298	EXPAN JOINT REPLACE 4 IN	52.90	LF
3115	04933	TEMP SIGNAL 2 PHASE	1.00	EACH
3120	06550	PAVE STRIPING-TEMP REM TAPE-W	1,340.00	LF

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
3125	06551	PAVE STRIPING-TEMP REM TAPE-Y	1,340.00	LF
3130	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS
3135	24094EC	PARTIAL DEPTH PATCHING	6.90	CUYD
3140	24981EC	BRIDGE CLEANING - 042B00175	1.00	LS
3145	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
3150	02653	LANE CLOSURE	2.00	EACH
3155	03298	EXPAN JOINT REPLACE 4 IN	64.80	LF
3160	03299	ARMORED EDGE FOR CONCRETE	64.80	LF
3165	04933	TEMP SIGNAL 2 PHASE	1.00	EACH
3170	06549	PAVE STRIPING-TEMP REM TAPE-B	1,500.00	LF
3175	06550	PAVE STRIPING-TEMP REM TAPE-W	1,370.00	LF
3180	06551	PAVE STRIPING-TEMP REM TAPE-Y	1,370.00	LF
3185	08504	EPOXY SAND SLURRY	170.40	SQYD
3190	08526	CONC CLASS M FULL DEPTH PATCH	5.00	CUYD
3195	08534	CONCRETE OVERLAY-LATEX	24.80	CUYD
3200	08549	BLAST CLEANING	886.00	SQYD
3205	08551	MACHINE PREP OF SLAB	716.00	SQYD
3210	22146EN	CONCRETE PATCHING REPAIR	20.00	SQFT
3215	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS
3220	24094EC	PARTIAL DEPTH PATCHING	9.90	CUYD
3225	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS
3230	02653	LANE CLOSURE	2.00	EACH
3235	03298	EXPAN JOINT REPLACE 4 IN	54.40	LF
3240	04933	TEMP SIGNAL 2 PHASE	1.00	EACH
3245	06549	PAVE STRIPING-TEMP REM TAPE-B	2,095.00	LF
3250	06550	PAVE STRIPING-TEMP REM TAPE-W	1,355.00	LF
3255	06551	PAVE STRIPING-TEMP REM TAPE-Y	1,355.00	LF
3260	23949EC	BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS
3265	24094EC	PARTIAL DEPTH PATCHING	7.30	CUYD
3270	24981EC	BRIDGE CLEANING - 042B00128	1.00	LS
3275	06400	GMSS GALV STEEL TYPE A	395.00	LB
3280	06405	SBM ALUMINUM PANEL SIGNS	1,862.00	SQFT
3285	06406	SBM ALUM SHEET SIGNS .080 IN	253.00	SQFT
3290	06407	SBM ALUM SHEET SIGNS .125 IN	457.00	SQFT
3295	06410	STEEL POST TYPE 1	610.00	LF
3300	06411	STEEL POST TYPE 2	40.00	LF
3305	06451	REMOVE SIGN SUPPORT BEAM	12.00	EACH
3310	06490	CLASS A CONCRETE FOR SIGNS	37.00	CUYD
3315	20419ND	ROADWAY CROSS SECTION	6.00	EACH
3320	21373ND	REMOVE SIGN	35.00	EACH
3325	21596ND	GMSS TYPE D	22.00	EACH
3330	24631EC	BARCODE SIGN INVENTORY	122.00	EACH
3335	06400	GMSS GALV STEEL TYPE A	144.00	LB
3340	06405	SBM ALUMINUM PANEL SIGNS	448.00	SQFT
3345	06406	SBM ALUM SHEET SIGNS .080 IN	20.00	SQFT
3350	06411	STEEL POST TYPE 2	100.00	LF
3355	06451	REMOVE SIGN SUPPORT BEAM	4.00	EACH
3360	06490	CLASS A CONCRETE FOR SIGNS	11.00	CUYD
3365	20419ND	ROADWAY CROSS SECTION	2.00	EACH
3370	21373ND	REMOVE SIGN	12.00	EACH

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
3375	24631EC	BARCODE SIGN INVENTORY	10.00	EACH
3380	06400	GMSS GALV STEEL TYPE A	347.00	LB
3385	06405	SBM ALUMINUM PANEL SIGNS	1,528.00	SQFT
3390	06406	SBM ALUM SHEET SIGNS .080 IN	470.00	SQFT
3395	06407	SBM ALUM SHEET SIGNS .125 IN	192.00	SQFT
3400	06410	STEEL POST TYPE 1	180.00	LF
3405	06411	STEEL POST TYPE 2	240.00	LF
3410	06451	REMOVE SIGN SUPPORT BEAM	12.00	EACH
3415	06490	CLASS A CONCRETE FOR SIGNS	33.00	CUYD
3420	20418ED	REMOVE & RELOCATE SIGNS	2.00	EACH
3425	20419ND	ROADWAY CROSS SECTION	6.00	EACH
3430	21373ND	REMOVE SIGN	35.00	EACH
3435	21596ND	GMSS TYPE D	12.00	EACH
3440	24631EC	BARCODE SIGN INVENTORY	124.00	EACH
3445	04714	POLE 120 FT MTG HT HIGH MAST	2.00	EACH
3450	04797	CONDUIT-3 IN	946.00	LF
3455	04800	MARKER	7.00	EACH
3460	04820	TRENCHING AND BACKFILLING	3,719.00	LF
3465	04940	REMOVE LIGHTING - KY307	1.00	LS
3470	04940	REMOVE LIGHTING - US51	1.00	LS
3475	20391NS835	ELECTRICAL JUNCTION BOX TYPE A	7.00	EACH
3480	20410ED	MAINTAIN LIGHTING - KY307	1.00	LS
3485	20410ED	MAINTAIN LIGHTING - US51	1.00	LS
3490	21543EN	BORE AND JACK CONDUIT	946.00	LF
3495	23161EN	POLE BASE-HIGH MAST	36.00	CUYD
3500	24749EC	HIGH MAST LED LUMINAIRE	77.00	EACH
3505	24851EC	CABLE-NO. 10/3C DUCTED	4,380.00	LF
3510	04714	POLE 120 FT MTG HT HIGH MAST	9.00	EACH
3515	04761	LIGHTING CONTROL EQUIPMENT	1.00	EACH
3520	04797	CONDUIT-3 IN	1,136.00	LF
3525	04800	MARKER	20.00	EACH
3530	04820	TRENCHING AND BACKFILLING	6,812.00	LF
3535	04940	REMOVE LIGHTING - KY339	1.00	LS
3540	20391NS835	ELECTRICAL JUNCTION BOX TYPE A	4.00	EACH
3545	20392NS835	ELECTRICAL JUNCTION BOX TYPE C	8.00	EACH
3550	20410ED	MAINTAIN LIGHTING - KY339	1.00	LS
3555	21543EN	BORE AND JACK CONDUIT	1,136.00	LF
3560	23161EN	POLE BASE-HIGH MAST	84.80	CUYD
3565	24749EC	HIGH MAST LED LUMINAIRE	52.00	EACH
3570	24851EC	CABLE-NO. 10/3C DUCTED	13,564.00	LF
3575	04797	CONDUIT-3 IN	120.00	LF
3580	04820	TRENCHING AND BACKFILLING	1,140.00	LF
3585	20257NC	SITE PREPARATION - KY307	1.00	LS
3590	20257NC	SITE PREPARATION - US51	1.00	LS
3595	21058ND	WINCH LOWERING TOOL	2.00	EACH
3600	21066ND	MODEL 336 ENCLOSURE	2.00	EACH
3605	21071ND	DATA SURGE DEVICE	2.00	EACH
3610	21079ND	TRANSFORMER 480/120	2.00	EACH
3615	21489ND	RACK MOUNTED UPS	2.00	EACH
3620	21543EN	BORE AND JACK CONDUIT	120.00	LF

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
3625	22403NN	WEB CAMERA ASSEMBLY	2.00	EACH
3630	23150NN	COMMUNICATION CABLE	120.00	LF
3635	23151NN	POLE WITH LOWERING DEVICE	2.00	EACH
3640	23157EN	TRAFFIC SIGNAL POLE BASE	10.00	CUYD
3645	23944EC	ADVANCED GROUNDING SYSTEM	2.00	EACH
3650	24851EC	CABLE-NO. 10/3C DUCTED	1,260.00	LF
3655	04797	CONDUIT-3 IN	135.00	LF
3660	04800	MARKER	1.00	EACH
3665	04820	TRENCHING AND BACKFILLING	675.00	LF
3670	20257NC	SITE PREPARATION - KY339	1.00	LS
3675	20391NS835	ELECTRICAL JUNCTION BOX TYPE A	2.00	EACH
3680	21058ND	WINCH LOWERING TOOL	1.00	EACH
3685	21066ND	MODEL 336 ENCLOSURE	1.00	EACH
3690	21071ND	DATA SURGE DEVICE	1.00	EACH
3695	21079ND	TRANSFORMER 480/120	1.00	EACH
3700	21489ND	RACK MOUNTED UPS	1.00	EACH
3705	21543EN	BORE AND JACK CONDUIT	135.00	LF
3710	22403NN	WEB CAMERA ASSEMBLY	1.00	EACH
3715	23150NN	COMMUNICATION CABLE	60.00	LF
3720	23151NN	POLE WITH LOWERING DEVICE	1.00	EACH
3725	23157EN	TRAFFIC SIGNAL POLE BASE	5.00	CUYD
3730	23944EC	ADVANCED GROUNDING SYSTEM	1.00	EACH
3735	24851EC	CABLE-NO. 10/3C DUCTED	810.00	LF
3740	02568	MOBILIZATION	1.00	LS
3745	02569	DEMOBILIZATION	1.00	LS

PART II
SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 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.
- 2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
- 3) Provide a controller consisting of:
 - a) Keyboard or keypad.
 - b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
 - c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
 - d) Logic circuitry to control the sequence of messages and flash rate.
- 4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
- 5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
- 6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
- 7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
- 8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
- 9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
- 10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
- 11) Provide a photocell control to provide automatic dimming.

- 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/=>=>=>/	/MIN/SPEED/**MPH/
/KEEP/LEFT/<=<=</	/ICY/BRIDGE/AHEAD/ /ONE
/LOOSE/GRAVEL/AHEAD/	LANE/BRIDGE/AHEAD/
/RD WORK/NEXT/**MILES/	/ROUGH/ROAD/AHEAD/
/TWO WAY/TRAFFIC/AHEAD/	/MERGING/TRAFFIC/AHEAD/
/PAINT/CREW/AHEAD/	/NEXT/**/MILES/
/REDUCE/SPEED/**MPH/	/HEAVY/TRAFFIC/AHEAD/
/BRIDGE/WORK/**0 FT/	/SPEED/LIMIT/**MPH/
/MAX/SPEED/**MPH/	/BUMP/AHEAD/
/SURVEY/PARTY/AHEAD/	/TWO/WAY/TRAFFIC/

*Insert numerals as directed by the Engineer.
Add other messages during the project when required by the Engineer.

2.3 Power.

- 1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.

3.0 CONSTRUCTION. Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

Maintain the sign in proper working order, including repair of any damage done by others, until completion of the project. When the sign becomes inoperative, immediately repair or replace the sign. Repetitive problems with the same unit will be cause for rejection and replacement.

Use only project related messages and messages directed by the Engineer, unnecessary messages lessen the impact of the sign. Ensure the message is displayed in either one or 2 phases with each phase having no more than 3 lines of text. When no message is needed, but it is necessary to know if the sign is operable, flash only a pixel.

When the sign is not needed, move it outside the clear zone or where the Engineer directs. Variable Message Signs are the property of the Contractor and shall be removed from the project when no longer needed. The Department will not assume ownership of these signs.

4.0 MEASUREMENT. The final quantity of Variable Message Sign will be

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the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

5.0 PAYMENT. The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and maintain or replace the variable message signs. The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

SPECIAL NOTE FOR TURF REINFORCING MAT

1.0 DESCRIPTION. Install turf reinforcement mat at locations specified in the Contract or as the Engineer directs. Section references herein are to the Department's current Standard Specifications for Road and Bridge Construction.

2.0 MATERIALS.

2.1 Turf Reinforcement Mat (TRM). Use a Turf Reinforcement Mat defined as permanent rolled erosion control product composed of non-degradable synthetic fibers, filaments, nets, wire mesh and/or other elements, processed into a three-dimensional matrix of sufficient thickness and from the Department's List of Approved Materials. Mats must be 100% UV stabilized materials. For TRMs containing degradable components, all physical property values must be obtained on the non-degradable portion of the matting exclusively. Ensure product labels clearly show the manufacturer or supplier name, style name, and roll number. Ensure labeling, shipment and storage follows ASTM D-4873. The Department will require manufacturer to provide TRMs that are machine constructed web of mechanically or melt bonded nondegradable fibers entangled to form a three dimensional matrix. The Department will require all long term performance property values in table below to be based on non degradable portion of the matting alone. Approved methods include polymer welding, thermal or polymer fusion, or placement of fibers between two high strength biaxially oriented nets mechanically bound by parallel stitching with polyolefin thread. Ensure that mats designated in the plans as Type 4 mats, are not to be manufactured from discontinuous or loosely held together by stitching or glued netting or composites. Type 4 mats shall be composed of geosynthetic matrix that exhibits a very high interlock and reinforcement capacities with both soil and root systems and with high tensile modulus. The Department will require manufacturer to use materials chemically and biologically inert to the natural soil environments conditions. Ensure the blanket is smolder resistant without the use of chemical additives. When stored, maintain the protective wrapping and elevate the mats off the ground to protect them from damage. The Department will not specify these materials for use in heavily acidic coal seam areas or other areas with soil problems that would severally limit vegetation growth.

- A) Dimensions. Ensure TRMs are furnished in strips with a minimum width of 4 feet and length of 50 feet.
- B) Weight. Ensure that all mat types have a minimum mass per unit area of 7 ounces per square yard according to ASTM D 6566.
- C) Performance Testing: The Department will require AASHTO's NTPEP index testing. The Department will also require the manufacturer to perform internal MARV testing at a Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP) accredited laboratory for tensile strength, tensile elongation, mass per unit area, and thickness once every 24,000 yds of production or whatever rate is required to ensure 97.7% confidence under ASTM D4439& 4354. The Department will require Full scale testing for slope and channel applications shear stress shall be done under ASTM D 6459, ASTM D 6460-07 procedures.

2.2 Classifications

The basis for selection of the type of mat required will be based on the long term shear stress level of the mat of the channel in question or the degree of slope to protect and will be designated in the contract. The Type 4 mats are to be used at structural backfills protecting critical

structures, utility cuts, areas where vehicles may be expected to traverse the mat, channels with large heavy drift, and where higher factors of safety, very steep slopes and/or durability concerns are needed as determined by project team and designer and will be specified in the plans by designer.

Turf Reinforcement Matting					
Properties ¹	Type 1	Type 2	Type 3	Type 4	Test Method
Minimum tensile Strength lbs/ft	125	150	175	3000 by 1500	ASTM D6818 ²
UV stability (minimum % tensile retention)	80	80	80	90	ASTM D4355 ³ (1000-hr exposure)
Minimum thickness (inches)	0.25	0.25	0.25	0.40	ASTM D6525
Slopes applications	2H:1V or flatter	1.5H:1V or flatter	1H:1V or flatter	1 H: 1V or greater	
Shear stress lbs/ft ² Channel applications	6.0 ⁴	8.0 ⁴	10.0 ⁴	12.0 ⁴	ASTM D6459 ASTM D6460-07

¹ For TRMs containing degradable components, all physical property values must be obtained on the non-degradable portion of the matting alone.

²Minimum Average Roll Values for tensile strength of sample material machine direction.

³Tensile Strength percentage retained after stated 1000 hr duration of exposure under ASTM D4355 testing. Based on nondegradable components exclusively.

⁴Maximum permissible shear design values based on short-term (0.5 hr) vegetated data obtained by full scale flume testing ASTM D6459, D6460-07. Based on nondegradable components exclusively. Testing will be done at Independent Hydraulics Facility such as Colorado State University hydraulics laboratory, Utah State University hydraulics laboratory, Texas Transportation Institute (TTI) hydraulics and erosion control laboratory.

2.3 Quality Assurance Sampling, Testing, and Acceptance

- A) Provide TRM listed on the Department’s List of Approved Materials. Prior to inclusion on the LAM, the manufacturer of TRM must meet the physical and performance criteria as outlined in the specification and submit a Letter Certifying compliance of the product under the above ASTM testing procedures and including a copy of report from Full Scale Independent Hydraulics Facility that Fully Vegetated Shear Stress meets shear stress requirements tested under D6459 and D6460-07.
- B) Contractors will provide a Letter of Certification from Manufacturer stating the product name, manufacturer, and that the product MARV product unit testing results meets Department criteria. Provide Letters once per project and for each product.
- C) Acceptance shall be in accordance with ASTM D-4759 based on testing performed by a Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP) accredited laboratory using Procedure A of ASTM D-4354.

Current mats meeting the above criteria are shown on the Department's List of Approved Materials.

2.4 Fasteners. When the mat manufacturer does not specify a specific fastener, use steel wire U-shaped staples with a minimum diameter of 0.09 inches (11 gauge), a minimum width of one inch and a minimum length of 12 inches. Use a heavier gauge when working in rocky or clay soils and longer lengths in sandy soils as directed by Engineer or Manufacturer's Representative. Provide staples with colored tops when requested by the Engineer.

3.0 CONSTRUCTION. When requested by the Engineer, provide a Manufacturer's Representative on-site to oversee and approve the initial installation of the mat. When requested by the Engineer, provide a letter from the Manufacturer approving the installation. When there is a conflict between the Department's criteria and the Manufacturer's criteria, construct using the more restrictive. The Engineer and Manufacturer's Representative must approve all alternate installation methods prior to execution. Construct according to the Manufacturer's recommendations and the following as minimum installation technique:

3.1 Site Preparation. Grade areas to be treated with matting and compact. Remove large rocks, soil clods, vegetation, roots, and other sharp objects that could keep the mat from intimate contact with subgrade. Prepare seedbed by loosening the top 2 to 3 inch of soil.

3.2 Installation. Install mats according to Standard Drawing Sepias "Turf Mat Channel Installation" and "Turf Mat Slope Installation." Install mats at the specified elevation and alignment. Anchor the mats with staples with a minimum length of 12 inches. Use longer anchors for installations in sandy, loose, or wet soils as directed by the Engineer or Manufacturer's Representative. The mat should be in direct contact with the soil surface.

4.0 MEASUREMENT. The Department will measure the quantity of Turf Reinforcement Mat by the square yard of surface covered. The Department will not measure preparation of the bed, providing a Manufacturer's Representative, topsoil, or seeding for payment and will consider them incidental to the Turf Reinforcement Mat. The Department will not measure any reworking of slopes or channels for payment as it is considered corrective work and incidental to the Turf Reinforcement Mat. Seeding and protection will be an incidental item.

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

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
23274EN11F	Turf Reinforcement Mat 1	Square Yard
23275EN11F	Turf Reinforcement Mat 2	Square Yard
23276EN11F	Turf Reinforcement Mat 3	Square Yard
23277EN11F	Turf Reinforcement Mat 4	Square Yard

September 1, 2022

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:

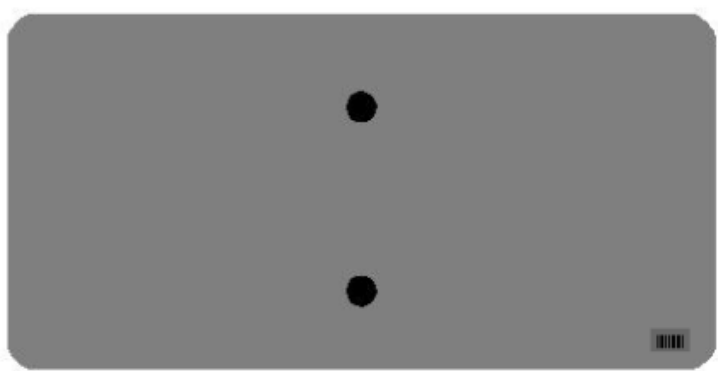
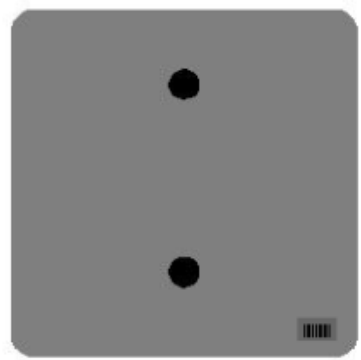
<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24631EC	Barcode Sign Inventory	Each

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.

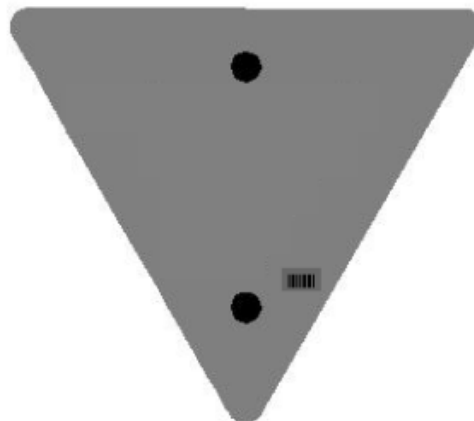
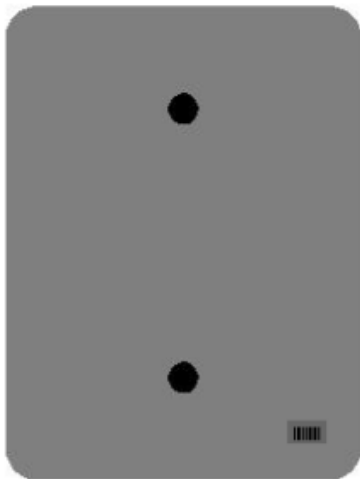
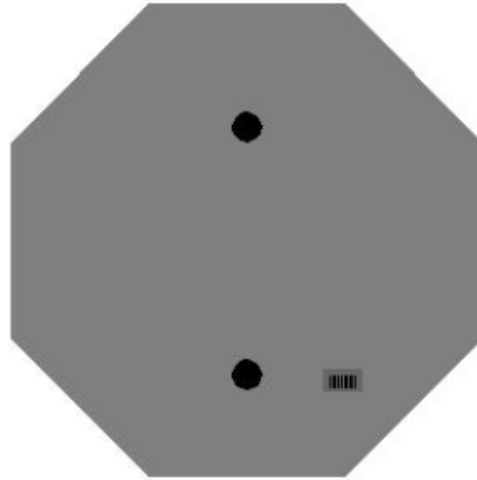
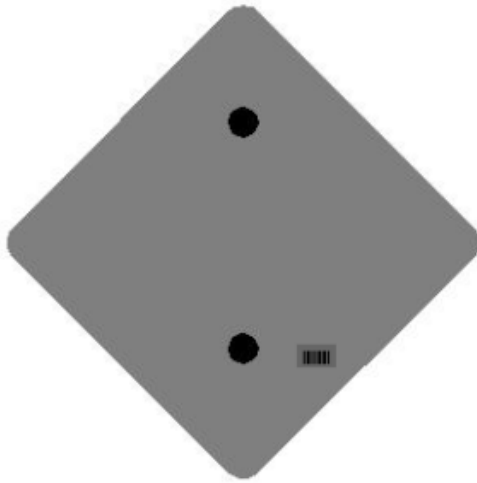
One Sign Post



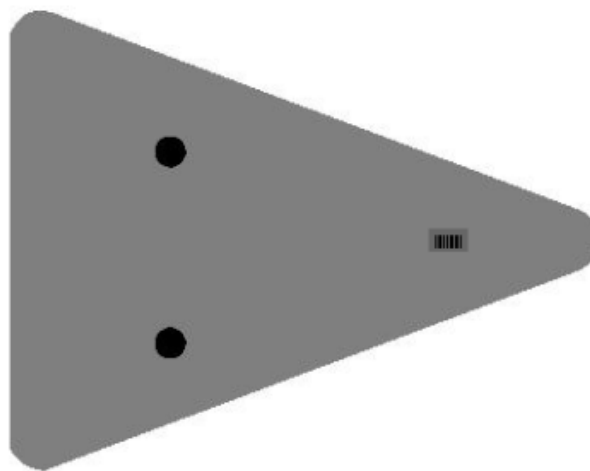
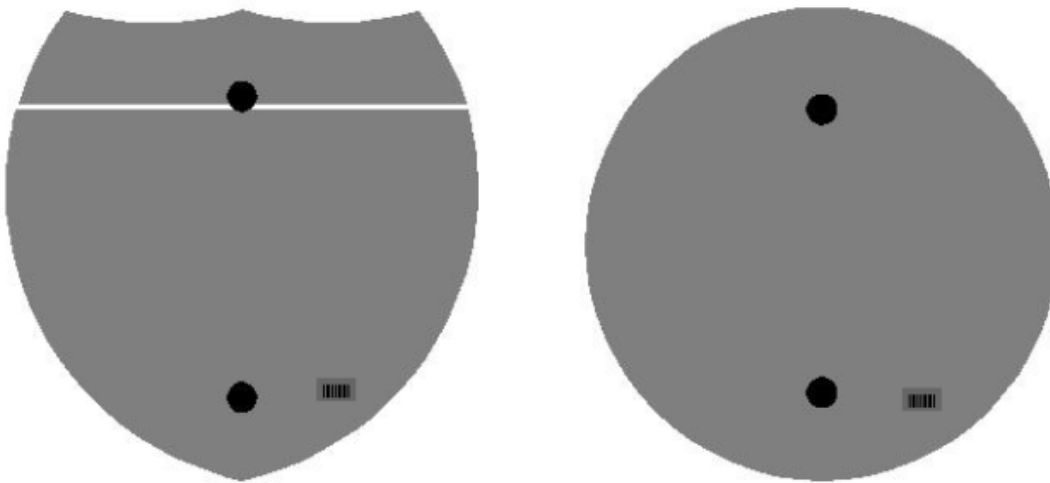
↑
2" Wide Post



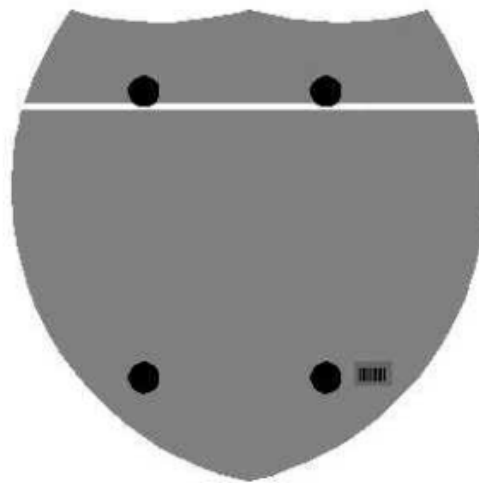
One Sign Post



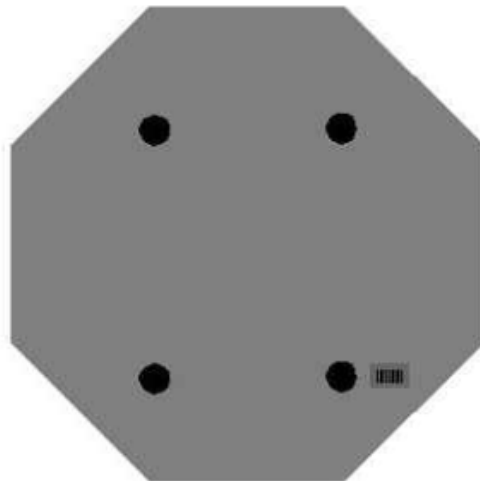
One Sign Post



Double Sign Post



Interstate
Shield

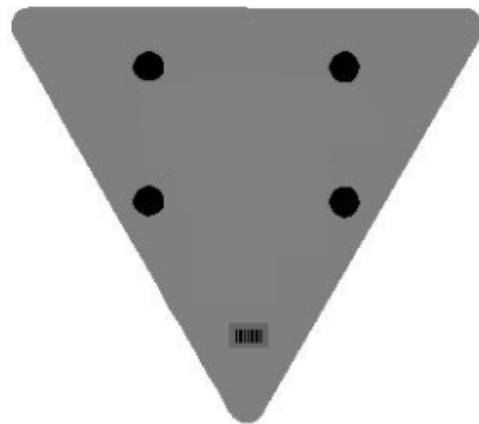


48" Stop

2 Post Signs



↑
2" Wide Post



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 °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.

11N

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 ° 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

Code
 20071EC

Pay Item
 Joint Adhesive

Pay Unit
 Linear Foot

May 7, 2014

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

FHWA-1273 -- Revised July 5, 2022

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

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

ATTACHMENTS

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

I. GENERAL

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6. Training and Promotion:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10. Assurances Required:

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

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

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

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

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

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

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

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

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

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

III. NONSEGREGATED FACILITIES

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

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

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

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

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

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

1. Minimum wages (29 CFR 5.5)

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

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

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

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

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

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the 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.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

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

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

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics,

including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

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

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

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State

Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

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

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 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 journeymen shall not be greater than permitted by the terms of the particular program.

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

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

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

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

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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 watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 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. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum 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. 29 CFR 5.5.

* \$27 as of January 23, 2019 (See 84 FR 213-01, 218) 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.

The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

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

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

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

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or

equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

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

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

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

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

VII. SAFETY: ACCIDENT PREVENTION

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

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

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance

with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

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 200.326.

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.

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

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

(a) 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;

(b) 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

(c) 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)

2. 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 administering 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

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

- a) The date of leaving office or termination of employment; or
- b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 1025 Capital Center Drive, Suite 104, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: May 23, 2022

"General Decision Number: KY20220040 08/26/2022

Superseded General Decision Number: KY20210040

State: Kentucky

Construction Type: Highway

Counties: Allen, Ballard, Butler, Caldwell, Calloway, Carlisle, Christian, Crittenden, Daviess, Edmonson, Fulton, Graves, Hancock, Henderson, Hickman, Hopkins, Livingston, Logan, Lyon, Marshall, McCracken, McLean, Muhlenberg, Ohio, Simpson, Todd, Trigg, Union, Warren and Webster 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)(2)-(60).

<p>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:</p>	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$15.00 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 2022.
<p>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:</p>	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 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 <https://www.dol.gov/agencies/whd/government-contracts>.

Modification Number	Publication Date
0	01/07/2022
1	01/14/2022
2	02/11/2022
3	02/18/2022
4	02/25/2022
5	05/06/2022
6	06/10/2022
7	07/01/2022
8	08/05/2022
9	08/12/2022
10	08/26/2022

BRIN0004-002 06/01/2021

BALLARD, BUTLER, CALDWELL, CARLISLE, CRITTENDEN, DAVIESS, EDMONSON, FULTON, GRAVES, HANCOCK, HENDERSON, HICKMAN, HOPKINS, LIVINGSTON, LYON, MARSHALL, MCCRACKEN, MCLEAN, MUHLENBERG, OHIO, UNION, and WEBSTER COUNTIES

	Rates	Fringes
BRICKLAYER Ballard, Caldwell, Carlisle, Crittenden, Fulton, Graves, Hickman, Livingston, Lyon, Marshall, and McCracken Counties.....	\$ 30.50	15.16
Butler, Edmonson, Hopkins, Muhlenberg, and Ohio Counties.....	\$ 26.80	12.38
Daviess, Hancock, Henderson, McLean, Union, and Webster Counties.....	\$ 29.57	14.75

 BRTN0004-005 06/01/2021

ALLEN, CALLOWAY, CHRISTIAN, LOGAN, SIMPSON, TODD, TRIGG, and WARREN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 29.75	14.75

 CARP0357-002 04/01/2022

	Rates	Fringes
CARPENTER.....	\$ 30.84	22.15
DIVER.....	\$ 46.64	22.15
PILEDRIVERMAN.....	\$ 31.09	22.15

 ELEC0369-006 06/01/2022

BUTLER, EDMONSON, LOGAN, TODD & WARREN COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 34.60	19.57

ELEC0429-001 06/01/2022		

ALLEN & SIMPSON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 31.55	14.08

ELEC0816-002 06/01/2022		

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN,
 FULTON (Except a 5 mile radius of City Hall in Fulton), GRAVES,
 HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN & TRIGG COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 35.11	22%+1.5%+3%+7.35

Cable spicers receive \$.25 per hour additional.		

ELEC1701-003 06/01/2022		

DAVISS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO,
 UNION & WEBSTER COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 34.18	7.35+30.8%

Cable spicers receive \$.25 per hour additional.		

ELEC1925-002 06/01/2022		

FULTON COUNTY (Up to a 5 mile radius of City Hall in Fulton):

	Rates	Fringes
CABLE SPLICER.....	\$ 26.80	14.93
ELECTRICIAN.....	\$ 26.30	14.93

ENGI0181-017 07/01/2021		

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 34.80	17.85
GROUP 2.....	\$ 31.94	17.85
GROUP 3.....	\$ 32.39	17.85
GROUP 4.....	\$ 31.62	17.85

OPERATING ENGINEER CLASSIFICATIONS

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; Gurrries; 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 Concrete 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 equals or exceeds 150 ft. - \$1.00 above 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.

IRON0070-005 06/01/2022

BUTLER COUNTY (Eastern eighth, including the Townships of Decker, Lee & Tilford);
EDMONSON COUNTY (Northern three-fourths, including the Townships of Asphalt, Bee Spring, Brownsville, Grassland, Huff, Kyrock, Lindseyville, Mammoth Cave, Ollie, Prosperity, Rhoda, Sunfish & Sweden)

Rates Fringes

IRONWORKER

Structural; Ornamental;
 Reinforcing; Precast
 Concrete Erectors.....\$ 31.79 24.30

 IRON0103-004 04/01/2022

DAVISS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, OHIO, UNION &
 WEBSTER COUNTIES

BUTLER COUNTY (Townships of Aberdeen, Bancock, Casey,
 Dexterville, Dunbar, Elfie, Gilstrap, Huntsville, Logansport,
 Monford, Morgantown, Provo, Rochester, South Hill & Welchs
 Creek);

CALDWELL COUNTY (Northeastern third, including the Township of
 Creswell);

CHRISTIAN COUNTY (Northern third, including the Townships of
 Apex, Crofton, Kelly, Mannington & Wynns);

CRITTENDEN COUNTY (Northeastern half, including the Townships
 of Grove, Mattoon, Repton, Shady Grove & Tribune);

MUHLENBERG COUNTY (Townships of Bavier, Beech Creek Junction,
 Benton, Brennen, Browder, Central City, Cleaton, Depoy,
 Drakesboro, Eunis, Graham, Hillside, Luzerne, Lynn City,
 Martwick, McNary, Millport, Moorman, Nelson, Paradise,
 Powderly, South Carrollton, Tarina & Weir)

Rates Fringes

Ironworkers:.....\$ 30.59 26.10

 * IRON0492-003 05/01/2022

ALLEN, LOGAN, SIMPSON, TODD & WARREN COUNTIES

BUTLER COUNTY (Southern third, including the Townships of
 Boston, Berrys Lick, Dimple, Jetson, Quality, Sharer, Sugar
 Grove & Woodbury);

CHRISTIAN COUNTY (Eastern two-thirds, including the Townships
 of Bennettstown, Casky, Herndon, Hopkinsville, Howell,
 Masonville, Pembroke & Thompsonville);

EDMONSON COUNTY (Southern fourth, including the Townships of
 Chalybeate & Rocky Hill);

MUHLENBERG COUNTY (Southern eighth, including the Townships of
 Dunnior, Penrod & Rosewood)

Rates Fringes

Ironworkers:.....\$ 31.15 15.66

 IRON0782-006 08/01/2022

BALLARD, CALLOWAY, CARLISLE, FULTON, GRAVES, HICKMAN,
 LIVINGSTON, LYON, MARSHALL, MCCRACKEN & TRIGG COUNTIES

CALDWELL COUNTY (Southwestern two-thirds, including the
 Townships of Cedar Bluff, Cider, Claxton, Cobb, Crowtown,
 Dulaney, Farmersville, Fredonia, McGowan, Otter Pond &
 Princeton);

CHRISTIAN COUNTY (Western third, Excluding the Townships of
 Apex, Crofton, Kelly, Mannington, Wynns, Bennettstown, Casky,
 Herndon, Hopkinsville, Howell, Masonville, Pembroke &
 Thompsonville);

CRITTENDEN COUNTY (Southwestern half, including the Townships
 of Crayne, Dycusburg, Frances, Marion, Mexico, Midway,
 Sheridan & Told)

Rates Fringes

Ironworkers:

Projects with a total contract cost of		
\$20,000,000.00 or above.....	\$ 31.87	23.22
All Other Work.....	\$ 30.28	23.22

 LAB00189-005 07/01/2022

BALLARD, CALLOWAY, CARLISLE, FULTON, GRAVES, HICKMAN,
 LIVINGSTON, LYON, MARSHALL & MCCRACKEN COUNTIES

Rates Fringes

Laborers:

GROUP 1.....	\$ 23.76	17.12
GROUP 2.....	\$ 24.01	17.12
GROUP 3.....	\$ 24.06	17.12
GROUP 4.....	\$ 24.66	17.12

LABORER 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; Bushhammer; 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; Blaster; 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

 LAB00189-006 07/01/2022

ALLEN, BUTLER, CALDWELL, CHRISTIAN, DAVIESS, EDMONSON, HANCOCK,
 HOPKINS, LOGAN, MCLEAN, MUHLENBERG, OHIO, SIMPSON, TODD, TRIGG
 & WARREN COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.76	17.12
GROUP 2.....	\$ 24.01	17.12
GROUP 3.....	\$ 24.06	17.12
GROUP 4.....	\$ 24.66	17.12

LABORER 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; Bushhammer; 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; Blaster; 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

 LAB00561-001 07/01/2022

CRITTENDEN, HENDERSON, UNION & WEBSTER COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 24.41	17.10
GROUP 2.....	\$ 24.66	17.10
GROUP 3.....	\$ 24.71	17.10

GROUP 4.....\$ 25.31 17.10

LABORER 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; Bushhammer; 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; Blaster; 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

 PAIN0032-002 09/01/2020

BALLARD COUNTY

	Rates	Fringes
Painters:		
Bridges.....	\$ 35.01	17.93
All Other Work.....	\$ 32.71	17.93

Spray, Blast, Steam, High & Hazardous (Including Lead Abatement) and All Epoxy - \$1.00 Premium

 PAIN0118-003 06/01/2014

EDMONSON COUNTY:

	Rates	Fringes
Painters:		
Brush & Roller.....	\$ 18.50	11.97

Spray, Sandblast, Power
Tools, Waterblast & Steam
Cleaning.....\$ 19.50 11.97

PAIN0156-006 04/01/2022

DAVISS, HANCOCK, HENDERSON, MCLEAN, OHIO, UNION & WEBSTER
COUNTIES

Rates Fringes

Painters:

BRIDGES
GROUP 1.....\$ 28.45 18.98
GROUP 3.....\$ 29.45 18.98
GROUP 4.....\$ 30.70 18.98
ALL OTHER WORK:
GROUP 1.....\$ 27.30 18.98
GROUP 2.....\$ 27.55 18.98
GROUP 3.....\$ 28.30 18.98
GROUP 4.....\$ 29.55 18.98

PAINTER CLASSIFICATIONS

GROUP 1 - Brush & Roller

GROUP 2 - Plasterers

GROUP 3 - Spray; Sandblast; Power Tools; Waterblast;
Steamcleaning; Brush & Roller of Mastics, Creosotes, Kwinch
Koate & Coal Tar Epoxy

GROUP 4 - Spray of Mastics, Creosotes, Kwinch Koate & Coal
Tar Epoxy

PAIN0500-002 06/01/2022

CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON,
GRAVES, HICKMAN, HOPKINS, LIVINGSTON, LYON, MARSHALL, MCCRACKEN
& TRIGG COUNTIES:

Rates Fringes

Painters:

Bridges.....\$ 29.25 15.30
All Other Work.....\$ 23.00 15.30

Waterblasting units with 3500 PSI and above - \$.50 premium
Spraypainting and all abrasive blasting - \$1.00 premium
Work 40 ft. and above ground level - \$1.00 premium

PLUM0184-002 07/01/2021

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN,
FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN
and TRIGG COUNTIES

Rates Fringes

Plumber; Steamfitter.....\$ 37.16 19.03

 PLUM0502-004 08/01/2021

ALLEN, BUTLER, EDMONSON, SIMPSON & WARREN

	Rates	Fringes
Plumber; Steamfitter.....	\$ 38.07	20.78

 PLUM0633-002 07/01/2022

DAVIESS, HANCOCK, HENDERSON, HOPKINS, LOGAN, MCLEAN,
 MUHLENBERG, OHIO, TODD, UNION & WEBSTER COUNTIES:

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 33.97	19.30

 TEAM0089-003 03/31/2022

ALLEN, BUTLER, EDMONSON, LOGAN, SIMPSON & WARREN COUNTIES

	Rates	Fringes
Truck drivers:		
Zone 1:		
Group 1.....	\$ 22.72	24.51
Group 2.....	\$ 22.90	24.51
Group 3.....	\$ 22.98	24.51
Group 4.....	\$ 23.00	24.51

GROUP 1 - Greaser; Tire Changer

GROUP 2 - Truck Mechanic; Single Axle Dump; Flat Bed; All Terrain Vehicles when used to haul materials; Semi Trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Driver of Distributors

GROUP 3 - Mixer All Types

GROUP 4 - Winch and A-Frame when used in transporting materials; Ross Carrier; Fork Lift when used to transport building materials; Driver on Pavement Breaker; Euclid and Other Heavy Earth Moving Equipment; Low Boy; Articulator Cat; Five Axle Vehicle

 TEAM0215-003 03/31/2022

DAVIESS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO & WEBSTER COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 24.35	24.51
Group 2.....	\$ 24.58	24.51
Group 3.....	\$ 24.65	24.51
Group 4.....	\$ 24.66	24.51

GROUP 1: Greaser, Tire Changer

GROUP 2: Truck Mechanic

GROUP 3: Single Axle Dump; Flat Bed; All Terrain Vehicle when used to haul materials; Semi Trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Driver of Distributors; Mixer All Types

GROUP 4: Euclid and other heavy earth moving equipment; Low Boy; Articulator Cat; 5 Axle Vehicle; Winch and A- Frame when used in transporting materials; Ross Carrier; Fork Lift when used to transport building materials; Driver on Pavement Breaker

TEAM0236-001 03/31/2022

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN, TODD & TRIGG COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 22.72	24.51
Group 2.....	\$ 22.90	24.51
Group 3.....	\$ 22.90	24.51
Group 4.....	\$ 23.00	24.51
Group 5.....	\$ 22.98	24.51

GROUP 1: Greaser, Tire Changer

GROUP 2: Truck Mechanic

GROUP 3: Single Axle Dump; Flat Bed; All Terrain Vehicle when used to haul materials; Semi Trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Drivers of Distributors

GROUP 4: Euclid and other heavy earth moving equipment; Low Boy; Articulator Cat; Five Axle Vehicle; Winch and A-Frame when used in transporting materials; Ross Carrier

GROUP 5: Mixer All Types

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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

violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <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) (ii)).

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

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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

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

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

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

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

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

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
5.2%	6.9%

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

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

**Evelyn Teague, Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75
Atlanta, Georgia 30303-8609**

4. As used in this Notice, and in the contract resulting from this solicitation, the "**covered area**" is Fulton County.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
5.2%	6.9%

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

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

**Evelyn Teague, Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75
Atlanta, Georgia 30303-8609**

4. As used in this Notice, and in the contract resulting from this solicitation, the "**covered area**" is Graves County.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
5.2%	6.9%

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

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

**Evelyn Teague, Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75
Atlanta, Georgia 30303-8609**

4. As used in this Notice, and in the contract resulting from this solicitation, the "**covered area**" is Hickman County.

PART IV
INSURANCE

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

PART V
BID ITEMS

PROPOSAL BID ITEMS

221350

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Report Date 9/21/22

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00003		CRUSHED STONE BASE	28,448.00	TON		\$	
0020	00005		GEOGRID REINFORCEMENT FOR SUBGRADE	42,304.00	SQYD		\$	
0030	00100		ASPHALT SEAL AGGREGATE	126.00	TON		\$	
0040	00103		ASPHALT SEAL COAT	15.00	TON		\$	
0050	00212		CL2 ASPH BASE 1.00D PG64-22	2,581.00	TON		\$	
0060	00214		CL3 ASPH BASE 1.00D PG64-22	3,026.00	TON		\$	
0070	00216		CL3 ASPH BASE 1.00D PG76-22	3,152.00	TON		\$	
0080	00309		CL2 ASPH SURF 0.50D PG64-22	2,590.00	TON		\$	
0090	00332		CL3 ASPH SURF 0.50A PG76-22	3,309.00	TON		\$	
0100	00356		ASPHALT MATERIAL FOR TACK	13.60	TON		\$	
0110	02602		FABRIC-GEOTEXTILE CLASS 1	42,304.00	SQYD		\$	
0120	02676		MOBILIZATION FOR MILL & TEXT - GRAVES 1-26.01	1.00	LS		\$	
0130	02677		ASPHALT PAVE MILLING & TEXTURING	3,167.00	TON		\$	
0140	20071EC		JOINT ADHESIVE	16,118.00	LF		\$	
0150	20362ES403		SHOULDER RUMBLE STRIPS-SAWED	29,944.00	LF		\$	
0160	20550ND		SAWCUT PAVEMENT	6,058.00	LF		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0170	00001		DGA BASE	366.00	TON		\$	
0180	00003		CRUSHED STONE BASE	40,091.00	TON		\$	
0190	00071		CRUSHED AGGREGATE SIZE NO 57	2,127.00	TON		\$	
0200	00078		CRUSHED AGGREGATE SIZE NO 2	31,132.00	TON		\$	
0210	00100		ASPHALT SEAL AGGREGATE	1,176.00	TON		\$	
0220	00103		ASPHALT SEAL COAT	145.00	TON		\$	
0230	00212		CL2 ASPH BASE 1.00D PG64-22	7,946.00	TON		\$	
0240	00214		CL3 ASPH BASE 1.00D PG64-22	88.00	TON		\$	
0250	00216		CL3 ASPH BASE 1.00D PG76-22	124.00	TON		\$	
0260	00301		CL2 ASPH SURF 0.38D PG64-22	2,374.00	TON		\$	
0270	00309		CL2 ASPH SURF 0.50D PG64-22	1,546.00	TON		\$	
0280	00326		CL3 ASPH SURF 0.50B PG76-22	1,490.00	TON		\$	
0290	00332		CL3 ASPH SURF 0.50A PG76-22	5,360.00	TON		\$	
0300	00356		ASPHALT MATERIAL FOR TACK	15.00	TON		\$	
0310	00440		ENTRANCE PIPE-15 IN	42.00	LF		\$	
0320	00461		CULVERT PIPE-15 IN	1,677.00	LF		\$	
0330	00462		CULVERT PIPE-18 IN	518.00	LF		\$	
0340	00474		CULVERT PIPE-72 IN	44.00	LF		\$	
0350	00521		STORM SEWER PIPE-15 IN	690.00	LF		\$	
0360	00522		STORM SEWER PIPE-18 IN	244.00	LF		\$	
0370	01015		INSPECT & CERTIFY EDGE DRAIN SYSTEM - GRAVES 1-26.01	1.00	LS		\$	
0380	01202		PIPE CULVERT HEADWALL-15 IN	4.00	EACH		\$	
0390	01310		REMOVE PIPE	402.00	LF		\$	
0400	01480		CURB BOX INLET TYPE B	16.00	EACH		\$	

PROPOSAL BID ITEMS

221350

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Report Date 9/21/22

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0410	01505		DROP BOX INLET TYPE 5B	9.00	EACH		\$	
0420	01511		DROP BOX INLET TYPE 5D	3.00	EACH		\$	
0430	01517		DROP BOX INLET TYPE 5F	1.00	EACH		\$	
0440	01585		REMOVE DROP BOX INLET	40.00	EACH		\$	
0450	01634		CAP CURB BOX INLET	1.00	EACH		\$	
0460	01650		JUNCTION BOX	13.00	EACH		\$	
0470	01655		REMOVE JUNCTION BOX	1.00	EACH		\$	
0480	01690		FLUME INLET TYPE 1	4.00	EACH		\$	
0490	01691		FLUME INLET TYPE 2	53.00	EACH		\$	
0500	01705		REMOVE CURB & GUTTER BOX INLET	12.00	EACH		\$	
0510	01825		ISLAND CURB AND GUTTER	50.00	LF		\$	
0520	01877		SPECIAL HEADER CURB	22,197.00	LF		\$	
0530	01903		REMOVE CONCRETE ROLL CURB	23,419.00	LF		\$	
0540	01955		CONC MEDIAN BARRIER TYPE 12C1	1,800.00	LF		\$	
0550	01958		CONC MEDIAN BARRIER TYPE 12C1 TL3	157.00	LF		\$	
0560	01970		CONC MEDIAN BARRIER TYPE 12C TL3	260.00	LF		\$	
0570	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	957.00	EACH		\$	
0580	01983		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL YELLOW	57.00	EACH		\$	
0590	01985		DELINEATOR FOR BARRIER - YELLOW	93.00	EACH		\$	
0600	02003		RELOCATE TEMP CONC BARRIER	34,908.00	LF		\$	
0610	02014		BARRICADE-TYPE III	30.00	EACH		\$	
0620	02091		REMOVE PAVEMENT	8,806.00	SQYD		\$	
0630	02159		TEMP DITCH	11,611.00	LF		\$	
0640	02160		CLEAN TEMP DITCH	5,806.00	LF		\$	
0650	02165		REMOVE PAVED DITCH	4,110.00	SQYD		\$	
0660	02200		ROADWAY EXCAVATION	30,441.00	CUYD		\$	
0670	02220		FLOWABLE FILL	13.70	CUYD		\$	
0680	02230		EMBANKMENT IN PLACE	103,473.00	CUYD		\$	
0690	02242		WATER	374.00	MGAL		\$	
0700	02262		FENCE-WOVEN WIRE TYPE 1	5,346.00	LF		\$	
0710	02265		REMOVE FENCE	3,585.00	LF		\$	
0720	02351		GUARDRAIL-STEEL W BEAM-S FACE	89,298.50	LF		\$	
0730	02352		GUARDRAIL-STEEL W BEAM-D FACE	1,375.00	LF		\$	
0740	02359		GUARDRAIL CONNECTOR TO CONC MED BARR	3.00	EACH		\$	
0750	02360		GUARDRAIL TERMINAL SECTION NO 1	17.00	EACH		\$	
0760	02363		GUARDRAIL CONNECTOR TO BRIDGE END TY A	62.00	EACH		\$	
0770	02365		CRASH CUSHION TYPE IX-A	10.00	EACH		\$	
0780	02367		GUARDRAIL END TREATMENT TYPE 1	102.00	EACH		\$	
0790	02369		GUARDRAIL END TREATMENT TYPE 2A	96.00	EACH		\$	
0800	02381		REMOVE GUARDRAIL	98,156.00	LF		\$	
0810	02387		GUARDRAIL CONNECTOR TO BRIDGE END TY A-1	62.00	EACH		\$	
0820	02396		REMOVE GUARDRAIL END TREATMENT	225.00	EACH		\$	
0830	02429		RIGHT-OF-WAY MONUMENT TYPE 1	20.00	EACH		\$	
0840	02432		WITNESS POST	20.00	EACH		\$	
0850	02483		CHANNEL LINING CLASS II	6,096.00	TON		\$	
0860	02484		CHANNEL LINING CLASS III	874.00	TON		\$	

PROPOSAL BID ITEMS

221350

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Report Date 9/21/22

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0870	02545		CLEARING AND GRUBBING - FULTON	1.00	LS		\$	
0880	02545		CLEARING AND GRUBBING - GRAVES	1.00	LS		\$	
0890	02545		CLEARING AND GRUBBING - HICKMAN	1.00	LS		\$	
0900	02545		CLEARING AND GRUBBING 68.5 ACRES/ GRAVES 1-26.01	1.00	LS		\$	
0910	02555		CONCRETE-CLASS B	36.99	CUYD		\$	
0920	02562		TEMPORARY SIGNS	3,219.00	SQFT		\$	
0930	02585		EDGE KEY	352.00	LF		\$	
0940	02602		FABRIC-GEOTEXTILE CLASS 1	40,462.00	SQYD		\$	
0950	02607		FABRIC-GEOTEXTILE CLASS 2 FOR PIPE	4,978.00	SQYD	\$2.00	\$	\$9,956.00
0960	02625		REMOVE HEADWALL	30.00	EACH		\$	
0970	02650		MAINTAIN & CONTROL TRAFFIC - FULTON	1.00	LS		\$	
0980	02650		MAINTAIN & CONTROL TRAFFIC - GRAVES	1.00	LS		\$	
0990	02650		MAINTAIN & CONTROL TRAFFIC - GRAVES 1-26.01	1.00	LS		\$	
1000	02650		MAINTAIN & CONTROL TRAFFIC - HICKMAN	1.00	LS		\$	
1010	02653		LANE CLOSURE	35.00	EACH		\$	
1020	02671		PORTABLE CHANGEABLE MESSAGE SIGN	16.00	EACH		\$	
1030	02676		MOBILIZATION FOR MILL & TEXT - FULTON	1.00	LS		\$	
1040	02676		MOBILIZATION FOR MILL & TEXT - GRAVES	1.00	LS		\$	
1050	02676		MOBILIZATION FOR MILL & TEXT - HICKMAN	1.00	LS		\$	
1060	02677		ASPHALT PAVE MILLING & TEXTURING	2,448.00	TON		\$	
1070	02690		SAFELOADING	21.00	CUYD		\$	
1080	02696		SHOULDER RUMBLE STRIPS	35,290.00	LF		\$	
1090	02701		TEMP SILT FENCE	19,855.00	LF		\$	
1100	02703		SILT TRAP TYPE A	93.00	EACH		\$	
1110	02704		SILT TRAP TYPE B	90.00	EACH		\$	
1120	02705		SILT TRAP TYPE C	90.00	EACH		\$	
1130	02706		CLEAN SILT TRAP TYPE A	143.00	EACH		\$	
1140	02707		CLEAN SILT TRAP TYPE B	134.00	EACH		\$	
1150	02708		CLEAN SILT TRAP TYPE C	134.00	EACH		\$	
1160	02709		CLEAN TEMP SILT FENCE	24,732.00	LF		\$	
1170	02720		SIDEWALK-4 IN CONCRETE	2,372.00	SQYD		\$	
1180	02726		STAKING - FULTON	1.00	LS		\$	
1190	02726		STAKING - GRAVES	1.00	LS		\$	
1200	02726		STAKING - GRAVES 1-26.01	1.00	LS		\$	
1210	02726		STAKING - HICKMAN	1.00	LS		\$	
1220	02775		ARROW PANEL	32.00	EACH		\$	
1230	03171		CONCRETE BARRIER WALL TYPE 9T	49,908.00	LF		\$	
1240	03304		BRIDGE OVERLAY APPROACH PAVEMENT	1,026.00	SQYD		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1250	04940		REMOVE LIGHTING -- GRAVES 1-26.01	1.00	LS		\$	
1260	05950		EROSION CONTROL BLANKET	13,497.00	SQYD		\$	
1270	05952		TEMP MULCH	288,758.00	SQYD		\$	
1280	05953		TEMP SEEDING AND PROTECTION	218,263.00	SQYD		\$	
1290	05963		INITIAL FERTILIZER	22.00	TON		\$	
1300	05964		MAINTENANCE FERTILIZER	32.10	TON		\$	
1310	05985		SEEDING AND PROTECTION	399,169.00	SQYD		\$	
1320	05992		AGRICULTURAL LIMESTONE	269.30	TON		\$	
1330	06401		FLEXIBLE DELINEATOR POST-M/W	307.00	EACH		\$	
1340	06404		FLEXIBLE DELINEATOR POST-M/Y	219.00	EACH		\$	
1350	06511		PAVE STRIPING-TEMP PAINT-6 IN	34,526.00	LF		\$	
1360	06514		PAVE STRIPING-PERM PAINT-4 IN	9,669.00	LF		\$	
1370	06542		PAVE STRIPING-THERMO-6 IN W	24,638.00	LF		\$	
1380	06543		PAVE STRIPING-THERMO-6 IN Y	38,209.00	LF		\$	
1390	06546		PAVE STRIPING-THERMO-12 IN W	4,258.00	LF		\$	
1400	06567		PAVE MARKING-THERMO STOP BAR-12IN	304.00	LF		\$	
1410	06592		PAVEMENT MARKER TYPE V-B W/R	108.00	EACH		\$	
1420	06613		INLAID PAVEMENT MARKER-B W/R	380.00	EACH		\$	
1430	08100		CONCRETE-CLASS A	91.02	CUYD		\$	
1440	08150		STEEL REINFORCEMENT	4,650.00	LB		\$	
1450	08904		CRASH CUSHION TY VI CLASS C	26.00	EACH		\$	
1460	10020NS		FUEL ADJUSTMENT	107,773.00	DOLL	\$1.00	\$	\$107,773.00
1470	10030NS		ASPHALT ADJUSTMENT	104,027.00	DOLL	\$1.00	\$	\$104,027.00
1480	20318ES508		RELOCATE CONC BARRIER WALL	13,400.00	LF		\$	
1490	20465EC		CLEAN CULVERT - FULTON	1.00	LS		\$	
1500	20465EC		CLEAN CULVERT - GRAVES	1.00	LS		\$	
1510	20465EC		CLEAN CULVERT - HICKMAN	1.00	LS		\$	
1520	20521NS719		REMOVE BRIDGE END CONNECTOR	40.00	EACH		\$	
1530	20550ND		SAWCUT PAVEMENT	11,435.00	LF		\$	
1540	20738NS112		TEMP CRASH CUSHION	32.00	EACH		\$	
1550	21289ED		LONGITUDINAL EDGE KEY	41,452.00	LF		\$	
1560	23274EN11F		TURF REINFORCEMENT MAT 1	310.00	SQYD		\$	
1570	23322EC		AGGREGATE SIZE NO. 57	33.00	CUYD		\$	
1580	23804EC		CONC MED BARRIER BOX INLET-TY 12A1	1.00	EACH		\$	
1590	23839EC		REMOVE CONCRETE MEDIAN	490.00	SQYD		\$	
1600	23976EC		CONC MED BARR BOX INLET TY 12A2-50 (MOD)	1.00	EACH		\$	
1610	24489EC		INLAID PAVEMENT MARKER	1,753.00	EACH		\$	
1620	24679ED		PAVE MARK THERMO CHEVRON	359.00	SQFT		\$	
1630	24787EN		SHEET PILING	4,533.00	SQFT		\$	
1640	24814EC		PIPELINE INSPECTION	4,245.00	LF		\$	
1650	26176ED		CONC MEDIAN BARRIER TYPE 12C2-42 IN	8,563.00	LF		\$	
1660	40047		SODDING	92.00	SQYD		\$	
1670	40074		ASPHALT LEVELING AND WEDGING	128.00	TON		\$	

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SECTION: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1680	00078		CRUSHED AGGREGATE SIZE NO 2	9.00	TON		\$	
1690	00462		CULVERT PIPE-18 IN	357.00	LF		\$	
1700	00464		CULVERT PIPE-24 IN	237.00	LF		\$	
1710	00466		CULVERT PIPE-30 IN	108.00	LF		\$	
1720	00468		CULVERT PIPE-36 IN	356.00	LF		\$	
1730	00470		CULVERT PIPE-48 IN	165.00	LF		\$	
1740	00471		CULVERT PIPE-54 IN	55.00	LF		\$	
1750	00521		STORM SEWER PIPE-15 IN	71.00	LF		\$	
1760	00522		STORM SEWER PIPE-18 IN	107.00	LF		\$	
1770	00528		STORM SEWER PIPE-36 IN	56.00	LF		\$	
1780	01000		PERFORATED PIPE-4 IN	3,435.00	LF		\$	
1790	01010		NON-PERFORATED PIPE-4 IN	352.00	LF		\$	
1800	01020		PERF PIPE HEADWALL TY 1-4 IN	6.00	EACH		\$	
1810	01028		PERF PIPE HEADWALL TY 3-4 IN	1.00	EACH		\$	
1820	01032		PERF PIPE HEADWALL TY 4-4 IN	2.00	EACH		\$	
1830	01204		PIPE CULVERT HEADWALL-18 IN	5.00	EACH		\$	
1840	01208		PIPE CULVERT HEADWALL-24 IN	2.00	EACH		\$	
1850	01210		PIPE CULVERT HEADWALL-30 IN	2.00	EACH		\$	
1860	01212		PIPE CULVERT HEADWALL-36 IN	4.00	EACH		\$	
1870	01216		PIPE CULVERT HEADWALL-48 IN	2.00	EACH		\$	
1880	01440		SLOPED BOX INLET-OUTLET TYPE 1	2.00	EACH		\$	
1890	01451		S & F BOX INLET-OUTLET-24 IN	3.00	EACH		\$	
1900	01453		S & F BOX INLET-OUTLET-36 IN	1.00	EACH		\$	
1910	01456		CURB BOX INLET TYPE A	2.00	EACH		\$	
1920	01490		DROP BOX INLET TYPE 1	2.00	EACH		\$	
1930	01493		DROP BOX INLET TYPE 2	1.00	EACH		\$	
1940	01499		DROP BOX INLET TYPE 4	1.00	EACH		\$	
1950	01511		DROP BOX INLET TYPE 5D	1.00	EACH		\$	
1960	01650		JUNCTION BOX	2.00	EACH		\$	
1970	01767		MANHOLE TYPE C	1.00	EACH		\$	
1980	23610NC		CORED HOLE DRAINAGE BOX CON	4.00	EACH		\$	
1990	24026EC		PIPE CULVERT HEADWALL-54 IN	1.00	EACH		\$	

Section: 0004 - BRIDGE - I69 OVER CN RR - 038B00055

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2000	02003		RELOCATE TEMP CONC BARRIER	800.00	LF		\$	
2010	02650		MAINTAIN & CONTROL TRAFFIC 038B00055	1.00	LS		\$	
2020	02653		LANE CLOSURE	4.00	EACH		\$	
2030	02775		ARROW PANEL	4.00	EACH		\$	
2040	02898		RELOCATE CRASH CUSHION	4.00	EACH		\$	
2050	02900		INSTALL TEMP CRASH CUSHION	4.00	EACH		\$	
2060	03171		CONCRETE BARRIER WALL TYPE 9T	800.00	LF		\$	
2070	06514		PAVE STRIPING-PERM PAINT-4 IN	7,000.00	LF		\$	
2080	06549		PAVE STRIPING-TEMP REM TAPE-B	1,000.00	LF		\$	
2090	06550		PAVE STRIPING-TEMP REM TAPE-W	3,250.00	LF		\$	
2100	06551		PAVE STRIPING-TEMP REM TAPE-Y	3,250.00	LF		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2110	22146EN		CONCRETE PATCHING REPAIR	280.00	SQFT		\$	
2120	23032EN		BRIDGE BARRIER RETROFIT	2,146.70	LF		\$	
2130	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE 038B00055 NB & SB	1.00	LS		\$	
2140	24981EC		BRIDGE CLEANING 038B00055 NB & SB	1.00	LS		\$	

Section: 0005 - BRIDGE - I69 OVER BAYOU DE CHEIN - 042B00170

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2150	02003		RELOCATE TEMP CONC BARRIER	800.00	LF		\$	
2160	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
2170	02653		LANE CLOSURE	4.00	EACH		\$	
2180	02775		ARROW PANEL	4.00	EACH		\$	
2190	02898		RELOCATE CRASH CUSHION	4.00	EACH		\$	
2200	02900		INSTALL TEMP CRASH CUSHION	4.00	EACH		\$	
2210	03171		CONCRETE BARRIER WALL TYPE 9T	800.00	LF		\$	
2220	06514		PAVE STRIPING-PERM PAINT-4 IN	6,450.00	LF		\$	
2230	06549		PAVE STRIPING-TEMP REM TAPE-B	400.00	LF		\$	
2240	06550		PAVE STRIPING-TEMP REM TAPE-W	3,000.00	LF		\$	
2250	06551		PAVE STRIPING-TEMP REM TAPE-Y	3,000.00	LF		\$	
2260	22146EN		CONCRETE PATCHING REPAIR	80.00	SQFT		\$	
2270	23032EN		BRIDGE BARRIER RETROFIT	1,311.60	LF		\$	
2280	23378EC		CONCRETE SEALING	6,607.80	SQFT		\$	
2290	23386EC		JOINT SEAL REPLACEMENT	127.80	LF		\$	
2300	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE 042B00170 NB & SB	1.00	LS		\$	
2310	24094EC		PARTIAL DEPTH PATCHING	24.40	CUYD		\$	
2320	24981EC		BRIDGE CLEANING 042B00170 NB & SB	1.00	LS		\$	

Section: 0006 - BRIDGE - I69 OVER BRUSH CREEK - 042B00173

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2330	02003		RELOCATE TEMP CONC BARRIER	800.00	LF		\$	
2340	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
2350	02653		LANE CLOSURE	4.00	EACH		\$	
2360	02775		ARROW PANEL	4.00	EACH		\$	
2370	02898		RELOCATE CRASH CUSHION	4.00	EACH		\$	
2380	02900		INSTALL TEMP CRASH CUSHION	4.00	EACH		\$	
2390	03171		CONCRETE BARRIER WALL TYPE 9T	800.00	LF		\$	
2400	06514		PAVE STRIPING-PERM PAINT-4 IN	5,200.00	LF		\$	
2410	06549		PAVE STRIPING-TEMP REM TAPE-B	1,350.00	LF		\$	
2420	06550		PAVE STRIPING-TEMP REM TAPE-W	1,400.00	LF		\$	
2430	06551		PAVE STRIPING-TEMP REM TAPE-Y	1,400.00	LF		\$	
2440	08504		EPOXY SAND SLURRY	51.80	SQYD		\$	
2450	08526		CONC CLASS M FULL DEPTH PATCH	5.00	CUYD		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2460	08534		CONCRETE OVERLAY-LATEX	18.60	CUYD		\$	
2470	08549		BLAST CLEANING	588.00	SQYD		\$	
2480	08551		MACHINE PREP OF SLAB	537.00	SQYD		\$	
2490	22146EN		CONCRETE PATCHING REPAIR	80.00	SQFT		\$	
2500	23032EN		BRIDGE BARRIER RETROFIT	578.80	LF		\$	
2510	23378EC		CONCRETE SEALING	2,664.00	SQFT		\$	
2520	23386EC		JOINT SEAL REPLACEMENT	76.00	LF		\$	
2530	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE 042B00173 NB & SB	1.00	LS		\$	
2540	24094EC		PARTIAL DEPTH PATCHING	12.60	CUYD		\$	
2550	24981EC		BRIDGE CLEANING 042B00173 NB & SB	1.00	LS		\$	

Section: 0007 - BRIDGE - I69 OVER OBION CREEK - 042B00176

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2560	02003		RELOCATE TEMP CONC BARRIER	800.00	LF		\$	
2570	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
2580	02653		LANE CLOSURE	4.00	EACH		\$	
2590	02775		ARROW PANEL	4.00	EACH		\$	
2600	02898		RELOCATE CRASH CUSHION	4.00	EACH		\$	
2610	02900		INSTALL TEMP CRASH CUSHION	4.00	EACH		\$	
2620	03171		CONCRETE BARRIER WALL TYPE 9T	800.00	LF		\$	
2630	06514		PAVE STRIPING-PERM PAINT-4 IN	3,530.00	LF		\$	
2640	06549		PAVE STRIPING-TEMP REM TAPE-B	840.00	LF		\$	
2650	06550		PAVE STRIPING-TEMP REM TAPE-W	2,690.00	LF		\$	
2660	06551		PAVE STRIPING-TEMP REM TAPE-Y	2,690.00	LF		\$	
2670	22146EN		CONCRETE PATCHING REPAIR	80.00	SQFT		\$	
2680	23032EN		BRIDGE BARRIER RETROFIT	917.00	LF		\$	
2690	23378EC		CONCRETE SEALING	4,163.40	SQFT		\$	
2700	23386EC		JOINT SEAL REPLACEMENT	152.00	LF		\$	
2710	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE 042B00176 NB & SB	1.00	LS		\$	
2720	24094EC		PARTIAL DEPTH PATCHING	20.80	CUYD		\$	
2730	24981EC		BRIDGE CLEANING 042B00176 NB & SB	1.00	LS		\$	

Section: 0008 - BRIDGE - I69 OVER OPOSSUM - 042B00177

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2740	02003		RELOCATE TEMP CONC BARRIER	800.00	LF		\$	
2750	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
2760	02653		LANE CLOSURE	4.00	EACH		\$	
2770	02775		ARROW PANEL	4.00	EACH		\$	
2780	02898		RELOCATE CRASH CUSHION	4.00	EACH		\$	
2790	02900		INSTALL TEMP CRASH CUSHION	4.00	EACH		\$	
2800	03171		CONCRETE BARRIER WALL TYPE 9T	800.00	LF		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2810	06514		PAVE STRIPING-PERM PAINT-4 IN	6,150.00	LF		\$	
2820	06549		PAVE STRIPING-TEMP REM TAPE-B	640.00	LF		\$	
2830	06550		PAVE STRIPING-TEMP REM TAPE-W	2,705.00	LF		\$	
2840	06551		PAVE STRIPING-TEMP REM TAPE-Y	2,705.00	LF		\$	
2850	08504		EPOXY SAND SLURRY	265.80	SQYD		\$	
2860	08526		CONC CLASS M FULL DEPTH PATCH	10.00	CUYD		\$	
2870	08534		CONCRETE OVERLAY-LATEX	61.80	CUYD		\$	
2880	08549		BLAST CLEANING	2,048.00	SQYD		\$	
2890	08551		MACHINE PREP OF SLAB	1,782.00	SQYD		\$	
2900	22146EN		CONCRETE PATCHING REPAIR	80.00	SQFT		\$	
2910	23032EN		BRIDGE BARRIER RETROFIT	929.60	LF		\$	
2920	23378EC		CONCRETE SEALING	4,213.80	SQFT		\$	
2930	23386EC		JOINT SEAL REPLACEMENT	215.00	LF		\$	
2940	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE 042B00177 NB & SB	1.00	LS		\$	
2950	24094EC		PARTIAL DEPTH PATCHING	22.30	CUYD		\$	
2960	24981EC		BRIDGE CLEANING 042B00177 NB & SB	1.00	LS		\$	

Section: 0009 - BRIDGE - US51 OVER I69 - 038B00012

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2970	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
2980	02653		LANE CLOSURE	2.00	EACH		\$	
2990	04933		TEMP SIGNAL 2 PHASE	1.00	EACH		\$	
3000	06549		PAVE STRIPING-TEMP REM TAPE-B	300.00	LF		\$	
3010	06550		PAVE STRIPING-TEMP REM TAPE-W	2,700.00	LF		\$	
3020	06551		PAVE STRIPING-TEMP REM TAPE-Y	2,700.00	LF		\$	
3030	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS		\$	
3040	24522EC		REPAIR ALUMINUM RAILING	1.00	LS		\$	
3050	24522EC		REPAIR EROSION AT ABUTMENTS	1.00	LS		\$	
3060	24981EC		BRIDGE CLEANING 038B00012	1.00	LS		\$	

Section: 0010 - BRIDGE - KY307 OVER I69 - 038B00015

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
3070	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
3080	02653		LANE CLOSURE	2.00	EACH		\$	
3090	03298		EXPAN JOINT REPLACE 4 IN	100.20	LF		\$	
3100	04933		TEMP SIGNAL 2 PHASE	1.00	EACH		\$	
3110	06549		PAVE STRIPING-TEMP REM TAPE-B	200.00	LF		\$	
3120	06550		PAVE STRIPING-TEMP REM TAPE-W	2,680.00	LF		\$	
3130	06551		PAVE STRIPING-TEMP REM TAPE-Y	2,680.00	LF		\$	
3140	08526		CONC CLASS M FULL DEPTH PATCH	2.00	CUYD		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
3150	22146EN		CONCRETE PATCHING REPAIR	8.00	SQFT		\$	
3160	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS		\$	
3170	24094EC		PARTIAL DEPTH PATCHING	9.80	CUYD		\$	
3180	24981EC		BRIDGE CLEANING 038B00015	1.00	LS		\$	

Section: 0011 - BRIDGE - KY2569 OVER HOLLAND - 053B00068

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
3190	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
3200	02653		LANE CLOSURE	2.00	EACH		\$	
3210	03298		EXPAN JOINT REPLACE 4 IN	60.00	LF		\$	
3220	04933		TEMP SIGNAL 2 PHASE	1.00	EACH		\$	
3230	06549		PAVE STRIPING-TEMP REM TAPE-B	1,980.00	LF		\$	
3240	06550		PAVE STRIPING-TEMP REM TAPE-W	2,750.00	LF		\$	
3250	06551		PAVE STRIPING-TEMP REM TAPE-Y	2,750.00	LF		\$	
3260	08504		EPOXY SAND SLURRY	175.40	SQYD		\$	
3270	08526		CONC CLASS M FULL DEPTH PATCH	2.00	CUYD		\$	
3280	08534		CONCRETE OVERLAY-LATEX	23.70	CUYD		\$	
3290	08549		BLAST CLEANING	859.00	SQYD		\$	
3300	08551		MACHINE PREP OF SLAB	684.00	SQYD		\$	
3310	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS		\$	
3320	24094EC		PARTIAL DEPTH PATCHING	8.10	CUYD		\$	
3330	24981EC		BRIDGE CLEANING 053B00068	1.00	LS		\$	

Section: 0012 - BRIDGE - KY94 OVER I69 - 053B00050

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
3340	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
3350	02653		LANE CLOSURE	2.00	EACH		\$	
3360	04933		TEMP SIGNAL 2 PHASE	1.00	EACH		\$	
3370	06549		PAVE STRIPING-TEMP REM TAPE-B	2,730.00	LF		\$	
3380	06550		PAVE STRIPING-TEMP REM TAPE-W	1,365.00	LF		\$	
3390	06551		PAVE STRIPING-TEMP REM TAPE-Y	1,365.00	LF		\$	
3400	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS		\$	
3410	24522EC		REPAIR ALUMINUM RAIL	1.00	LS		\$	
3420	24981EC		BRIDGE CLEANING 053B00050	1.00	LS		\$	

Section: 0013 - BRIDGE - KY1529 OVER I69 - 053B00056

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
3430	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
3440	02653		LANE CLOSURE	2.00	EACH		\$	
3450	03298		EXPAN JOINT REPLACE 4 IN	52.60	LF		\$	
3460	04933		TEMP SIGNAL 2 PHASE	1.00	EACH		\$	
3470	06549		PAVE STRIPING-TEMP REM TAPE-B	2,680.00	LF		\$	
3480	06550		PAVE STRIPING-TEMP REM TAPE-W	1,340.00	LF		\$	
3490	06551		PAVE STRIPING-TEMP REM TAPE-Y	1,340.00	LF		\$	
3500	08504		EPOXY SAND SLURRY	151.20	SQYD		\$	
3510	08526		CONC CLASS M FULL DEPTH PATCH	5.00	CUYD		\$	
3520	08534		CONCRETE OVERLAY-LATEX	20.50	CUYD		\$	
3530	08549		BLAST CLEANING	741.00	SQYD		\$	
3540	08551		MACHINE PREP OF SLAB	590.00	SQYD		\$	
3550	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS		\$	
3560	24094EC		PARTIAL DEPTH PATCHING	7.00	CUYD		\$	
3570	24522EC		REPAIR EROSION AT ABUTMENTS	1.00	LS		\$	
3580	24981EC		BRIDGE CLEANING 053B00056	1.00	LS		\$	

Section: 0014 - BRIDGE - KY1283 OVER I69 - 053B00102

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
3590	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
3600	02653		LANE CLOSURE	2.00	EACH		\$	
3610	04933		TEMP SIGNAL 2 PHASE	1.00	EACH		\$	
3620	06549		PAVE STRIPING-TEMP REM TAPE-B	2,810.00	LF		\$	
3630	06550		PAVE STRIPING-TEMP REM TAPE-W	1,405.00	LF		\$	
3640	06551		PAVE STRIPING-TEMP REM TAPE-Y	1,405.00	LF		\$	
3650	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS		\$	
3660	24981EC		BRIDGE CLEANING 053B00102	1.00	LS		\$	

Section: 0015 - BRIDGE - KY 1763 OVER I69 - 042B00171

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
3670	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
3680	02653		LANE CLOSURE	2.00	EACH		\$	
3690	03298		EXPAN JOINT REPLACE 4 IN	55.00	LF		\$	
3700	03299		ARMORED EDGE FOR CONCRETE	55.00	LF		\$	
3710	04933		TEMP SIGNAL 2 PHASE	1.00	EACH		\$	
3720	06550		PAVE STRIPING-TEMP REM TAPE-W	1,350.00	LF		\$	
3730	06551		PAVE STRIPING-TEMP REM TAPE-Y	1,350.00	LF		\$	
3740	08504		EPOXY SAND SLURRY	155.70	SQYD		\$	
3750	08526		CONC CLASS M FULL DEPTH PATCH	5.00	CUYD		\$	
3760	08534		CONCRETE OVERLAY-LATEX	21.10	CUYD		\$	
3770	08549		BLAST CLEANING	763.00	SQYD		\$	
3780	08551		MACHINE PREP OF SLAB	607.00	SQYD		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
3790	22146EN		CONCRETE PATCHING REPAIR	12.00	SQFT		\$	
3800	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS		\$	
3810	24094EC		PARTIAL DEPTH PATCHING	8.40	CUYD		\$	
3820	24981EC		BRIDGE CLEANING 042B00171	1.00	LS		\$	

Section: 0016 - BRIDGE - GRISSOM RD OVER I69 - 042B000172

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
3830	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
3840	02653		LANE CLOSURE	2.00	EACH		\$	
3850	03298		EXPAN JOINT REPLACE 4 IN	63.50	LF		\$	
3860	04933		TEMP SIGNAL 2 PHASE	1.00	EACH		\$	
3870	06549		PAVE STRIPING-TEMP REM TAPE-B	2,690.00	LF		\$	
3880	06550		PAVE STRIPING-TEMP REM TAPE-W	1,345.00	LF		\$	
3890	06551		PAVE STRIPING-TEMP REM TAPE-Y	1,345.00	LF		\$	
3900	22146EN		CONCRETE PATCHING REPAIR	5.00	SQFT		\$	
3910	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS		\$	
3920	24094EC		PARTIAL DEPTH PATCHING	8.20	CUYD		\$	

Section: 0017 - BRIDGE - KY944 OVER I69 - 042B00180

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
3930	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
3940	02653		LANE CLOSURE	2.00	EACH		\$	
3950	03298		EXPAN JOINT REPLACE 4 IN	58.80	LF		\$	
3960	03299		ARMORED EDGE FOR CONCRETE	58.80	LF		\$	
3970	04933		TEMP SIGNAL 2 PHASE	1.00	EACH		\$	
3980	06549		PAVE STRIPING-TEMP REM TAPE-B	2,730.00	LF		\$	
3990	06550		PAVE STRIPING-TEMP REM TAPE-W	1,365.00	LF		\$	
4000	06551		PAVE STRIPING-TEMP REM TAPE-Y	1,365.00	LF		\$	
4010	22146EN		CONCRETE PATCHING REPAIR	64.00	SQFT		\$	
4020	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS		\$	
4030	24094EC		PARTIAL DEPTH PATCHING	9.10	CUYD		\$	

Section: 0018 - BRIDGE - TATER/LATER HILL RD OVER I69 - 042B00175

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
4040	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
4050	02653		LANE CLOSURE	2.00	EACH		\$	
4060	03298		EXPAN JOINT REPLACE 4 IN	52.90	LF		\$	
4070	04933		TEMP SIGNAL 2 PHASE	1.00	EACH		\$	
4080	06550		PAVE STRIPING-TEMP REM TAPE-W	1,340.00	LF		\$	
4090	06551		PAVE STRIPING-TEMP REM TAPE-Y	1,340.00	LF		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
4100	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS		\$	
4110	24094EC		PARTIAL DEPTH PATCHING	6.90	CUYD		\$	
4120	24981EC		BRIDGE CLEANING 042B00175	1.00	LS		\$	

Section: 0019 - BRIDGE - KY58 OVER I69 - 042B00096

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
4130	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
4140	02653		LANE CLOSURE	2.00	EACH		\$	
4150	03298		EXPAN JOINT REPLACE 4 IN	64.80	LF		\$	
4160	03299		ARMORED EDGE FOR CONCRETE	64.80	LF		\$	
4170	04933		TEMP SIGNAL 2 PHASE	1.00	EACH		\$	
4180	06549		PAVE STRIPING-TEMP REM TAPE-B	1,500.00	LF		\$	
4190	06550		PAVE STRIPING-TEMP REM TAPE-W	1,370.00	LF		\$	
4200	06551		PAVE STRIPING-TEMP REM TAPE-Y	1,370.00	LF		\$	
4210	08504		EPOXY SAND SLURRY	170.40	SQYD		\$	
4220	08526		CONC CLASS M FULL DEPTH PATCH	5.00	CUYD		\$	
4230	08534		CONCRETE OVERLAY-LATEX	24.80	CUYD		\$	
4240	08549		BLAST CLEANING	886.00	SQYD		\$	
4250	08551		MACHINE PREP OF SLAB	716.00	SQYD		\$	
4260	22146EN		CONCRETE PATCHING REPAIR	20.00	SQFT		\$	
4270	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS		\$	
4280	24094EC		PARTIAL DEPTH PATCHING	9.90	CUYD		\$	

Section: 0020 - BRIDGE - KY1748BW OVER I69 - 042B00128

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
4290	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
4300	02653		LANE CLOSURE	2.00	EACH		\$	
4310	03298		EXPAN JOINT REPLACE 4 IN	54.40	LF		\$	
4320	04933		TEMP SIGNAL 2 PHASE	1.00	EACH		\$	
4330	06549		PAVE STRIPING-TEMP REM TAPE-B	2,095.00	LF		\$	
4340	06550		PAVE STRIPING-TEMP REM TAPE-W	1,355.00	LF		\$	
4350	06551		PAVE STRIPING-TEMP REM TAPE-Y	1,355.00	LF		\$	
4360	23949EC		BRIDGE CLEANING & PREVENTIVE MAINTENANCE	1.00	LS		\$	
4370	24094EC		PARTIAL DEPTH PATCHING	7.30	CUYD		\$	
4380	24981EC		BRIDGE CLEANING 042B00128	1.00	LS		\$	

Section: 0021 - SIGNING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
4390	06400		GMSS GALV STEEL TYPE A	886.00	LB		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
4400	06405		SBM ALUMINUM PANEL SIGNS	3,838.00	SQFT		\$	
4410	06406		SBM ALUM SHEET SIGNS .080 IN	743.00	SQFT		\$	
4420	06407		SBM ALUM SHEET SIGNS .125 IN	649.00	SQFT		\$	
4430	06410		STEEL POST TYPE 1	790.00	LF		\$	
4440	06411		STEEL POST TYPE 2	380.00	LF		\$	
4450	06451		REMOVE SIGN SUPPORT BEAM	28.00	EACH		\$	
4460	06490		CLASS A CONCRETE FOR SIGNS	81.00	CUYD		\$	
4470	20418ED		REMOVE & RELOCATE SIGNS	2.00	EACH		\$	
4480	20419ND		ROADWAY CROSS SECTION	14.00	EACH		\$	
4490	21373ND		REMOVE SIGN	82.00	EACH		\$	
4500	21596ND		GMSS TYPE D	34.00	EACH		\$	
4510	24631EC		BARCODE SIGN INVENTORY	256.00	EACH		\$	

Section: 0022 - LIGHTING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
4520	04714		POLE 120 FT MTG HT HIGH MAST	11.00	EACH		\$	
4530	04761		LIGHTING CONTROL EQUIPMENT	1.00	EACH		\$	
4540	04797		CONDUIT-3 IN	2,082.00	LF		\$	
4550	04800		MARKER	27.00	EACH		\$	
4560	04820		TRENCHING AND BACKFILLING	10,531.00	LF		\$	
4570	04940		REMOVE LIGHTING KY307	1.00	LS		\$	
4580	04940		REMOVE LIGHTING KY339	1.00	LS		\$	
4590	04940		REMOVE LIGHTING US51	1.00	LS		\$	
4600	20391NS835		ELECTRICAL JUNCTION BOX TYPE A	11.00	EACH		\$	
4610	20392NS835		ELECTRICAL JUNCTION BOX TYPE C	8.00	EACH		\$	
4620	20410ED		MAINTAIN LIGHTING KY307	1.00	LS		\$	
4630	20410ED		MAINTAIN LIGHTING KY339	1.00	LS		\$	
4640	20410ED		MAINTAIN LIGHTING US51	1.00	LS		\$	
4650	21543EN		BORE AND JACK CONDUIT	2,082.00	LF		\$	
4660	23161EN		POLE BASE-HIGH MAST	120.80	CUYD		\$	
4670	24749EC		HIGH MAST LED LUMINAIRE	129.00	EACH		\$	
4680	24851EC		CABLE-NO. 10/3C DUCTED	17,944.00	LF		\$	

Section: 0023 - INTELLIGENT TRANSPORTATION SYSTEMS

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
4690	04797		CONDUIT-3 IN	255.00	LF		\$	
4700	04800		MARKER	1.00	EACH		\$	
4710	04820		TRENCHING AND BACKFILLING	1,815.00	LF		\$	
4720	20257NC		SITE PREPARATION KY307	1.00	LS		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
4730	20257NC		SITE PREPARATION KY339	1.00	LS		\$	
4740	20257NC		SITE PREPARATION US51	1.00	LS		\$	
4750	20391NS835		ELECTRICAL JUNCTION BOX TYPE A	2.00	EACH		\$	
4760	21058ND		WINCH LOWERING TOOL	3.00	EACH		\$	
4770	21066ND		MODEL 336 ENCLOSURE	3.00	EACH		\$	
4780	21071ND		DATA SURGE DEVICE	3.00	EACH		\$	
4790	21079ND		TRANSFORMER 480/120	3.00	EACH		\$	
4800	21489ND		RACK MOUNTED UPS	3.00	EACH		\$	
4810	21543EN		BORE AND JACK CONDUIT	255.00	LF		\$	
4820	22403NN		WEB CAMERA ASSEMBLY	3.00	EACH		\$	
4830	23150NN		COMMUNICATION CABLE	180.00	LF		\$	
4840	23151NN		POLE WITH LOWERING DEVICE	3.00	EACH		\$	
4850	23157EN		TRAFFIC SIGNAL POLE BASE	15.00	CUYD		\$	
4860	23944EC		ADVANCED GROUNDING SYSTEM	3.00	EACH		\$	
4870	24851EC		CABLE-NO. 10/3C DUCTED	2,070.00	LF		\$	

Section: 0024 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
4880	02568		MOBILIZATION	1.00	LS		\$	
4890	02569		DEMOBILIZATION	1.00	LS		\$	