



**CALL NO. 106**

**CONTRACT ID. 124011**

**BOYD COUNTY**

**FED/STATE PROJECT NUMBER HSIP 5244 (014)**

**DESCRIPTION PRINCESS-IRONVILLE ROAD (KY 5)**

**WORK TYPE GRADE & DRAIN LESS THAN MILLION CY**

**PRIMARY COMPLETION DATE (SEE SPECIAL NOTES)**

**LETTING DATE: May 18, 2012**

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME May 18, 2012. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

**DBE CERTIFICATION REQUIRED - 10%**

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

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**PART I**

**SCOPE OF WORK**

CONTRACT ID - 124011

ADMINISTRATIVE DISTRICT - 09

PROJECT(S) IDENTIFICATION AND DESCRIPTION:

COUNTY - BOYD

PCN - 0901000051201

HSIP 5244 (014)

PRINCESS-IRONVILLE ROAD (KY 5) FROM US 60 (MP 0.000) EXTENDING NORTH TO KY 716 (MP 6.862),  
A DISTANCE OF 6.86 MILES. GRADE & DRAIN. SYP NO. 09-00908.00.

GEOGRAPHIC COORDINATES LATITUDE 38^25'40" LONGITUDE 82^45'32"

AVERAGE DAILY TRAFFIC - 6700

AVERAGE MAINLINE WIDTH - 22.0 FEET

COMPLETION DATE(S):

SEE SPECIAL NOTES

APPLIES TO CULVERTS

COMPLETION DATE - October 15, 2012

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 Expedite Bidding Program available on the Internet web site of the Department of Highways, Division of Construction Procurement. ([www.transportation.ky.gov/contract](http://www.transportation.ky.gov/contract))

The Bidder must download the bid file located on the Bid Express website ([www.bidx.com](http://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 is advised that the Underground Facility Damage Protection Act of 1994, became law January 1, 1995. It is the contractor's responsibility to determine the impact of the act regarding this project, and take all steps necessary to be in compliance with the provision of the act.

### **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](mailto: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](http://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.

### **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. (See attachment)

10/18/2011



**Steven L. Beshear**  
Governor

Commonwealth of Kentucky  
Finance and Administration Cabinet  
**OFFICE OF THE SECRETARY**  
Room 383, Capitol Annex  
702 Capital Avenue  
Frankfort, KY 40601-3462  
(502) 564-4240  
Fax (502) 564-6785

**Lori H. Flanery**  
Secretary

## **SECRETARY'S ORDER 11-004**

### **FINANCE AND ADMINISTRATION CABINET**

#### **Vendor Document Disclosure**

**WHEREAS**, in order to promote accountability and transparency in governmental operations, the Finance and Administration Cabinet believes that a mechanism should be created which would provide for review and assistance to an Executive Branch agency if said agency cannot obtain access to documents that it deems necessary to conduct a review of the records of a private vendor that holds a contract to provide goods and/or services to the Commonwealth; and

**WHEREAS**, in order to promote accountability and transparency in governmental operations, the Finance and Administration Cabinet believes that a mechanism should be created which would provide for review and assistance to an Executive Branch agency if said agency cannot obtain access to documents that it deems necessary during the course of an audit, investigation or any other inquiry by an Executive Branch agency that involves the review of documents; and

**WHEREAS**, KRS 42.014 and KRS 12.270 authorizes the Secretary of the Finance and Administration Cabinet to establish the internal organization and assignment of functions which are not established by statute relating to the Finance and Administration Cabinet; further, KRS Chapter 45A.050 and 45A.230 authorizes the Secretary of the Finance and Administration Cabinet to procure, manage and control all supplies and services that are procured by the Commonwealth and to intervene in controversies among vendors and state agencies; and

**NOW, THEREFORE**, pursuant to the authority vested in me by KRS 42.014, KRS 12.270, KRS 45A.050, and 45A.230, I, Lori H. Flanery, Secretary of the Finance and Administration Cabinet, do hereby order and direct the following:

- I. Upon the request of an Executive Branch agency, the Finance and Administration Cabinet ("FAC") shall formally review any dispute arising where the agency has requested documents from a private vendor that holds a state contract and the vendor has refused access to said documents under a claim that said documents are not directly pertinent or relevant to the agency's inquiry upon which the document request was predicated.
- II. Upon the request of an Executive Branch agency, the FAC shall formally review any situation where the agency has requested documents that the agency deems necessary to



conduct audits, investigations or any other formal inquiry where a dispute has arisen as to what documents are necessary to conclude the inquiry.

- III. Upon receipt of a request by a state agency pursuant to Sections I & II, the FAC shall consider the request from the Executive Branch agency and the position of the vendor or party opposing the disclosure of the documents, applying any and all relevant law to the facts and circumstances of the matter in controversy. After FAC's review is complete, FAC shall issue a Determination which sets out FAC's position as to what documents and/or records, if any, should be disclosed to the requesting agency. The Determination shall be issued within 30 days of receipt of the request from the agency. This time period may be extended for good cause.
- IV. If the Determination concludes that documents are being wrongfully withheld by the private vendor or other party opposing the disclosure from the state agency, the private vendor shall immediately comply with the FAC's Determination. Should the private vendor or other party refuse to comply with FAC's Determination, then the FAC, in concert with the requesting agency, shall effectuate any and all options that it possesses to obtain the documents in question, including, but not limited to, jointly initiating an action in the appropriate court for relief.
- V. Any provisions of any prior Order that conflicts with the provisions of this Order shall be deemed null and void.

### **FEDERAL CONTRACT NOTES**

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

102.02 Current Capacity Rating 102.10 Delivery of Proposals  
102.08 Irregular Proposals 102.14 Disqualification of Bidders  
102.09 Proposal Guaranty

### **CIVIL RIGHTS ACT OF 1964**

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

### **NOTICE TO ALL BIDDERS**

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

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

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

### **FHWA 1273**

Contrary to Paragraph VI of FHWA 1273, contractors on National Highway System (NHS) projects of \$1 million or more are no longer required to submit Form FHWA-47.

Contrary to Form FHWA-1273, Section V, paragraph 2.b personal addresses and full social

security numbers (SSN) shall not be included on weekly payroll submissions by contractors and subcontractors. Contractors and subcontractors shall include the last four digits of the employee's SSN as an individually identifying number for each employee on the weekly payroll submittal. This in no way changes the requirement that contractors and subcontractors maintain complete SSN and home addresses for employees and provide this information upon request of KYTC, FHWA, and the U.S. Department of Labor.

### **SECOND TIER SUBCONTRACTS**

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

### **DISADVANTAGED BUSINESS ENTERPRISE PROGRAM**

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

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

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

### **DBE GOAL**

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

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

### **OBLIGATION OF CONTRACTORS**

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

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

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

### **CERTIFICATION OF CONTRACT GOAL**

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

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

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

### **DBE PARTICIPATION PLAN**

Lowest responsive bidders must submit the *DBE Plan/ Subcontractor Request*, form TC 63-35 DBE, within 10 days of the letting. This is necessary before the Awards Committee will review and make a recommendation. **The project will not be considered for award prior to submission and approval of the apparent low bidder’s DBE Plan/Subcontractor Request.**

The DBE Participation Plan shall include the following:

- 1 Name and address of DBE Subcontractor(s) and/or supplier(s) intended to be used in the proposed project;
- 2 Description of the work each is to perform including the work item , unit, quantity, unit price and total amount of the work to be performed by the individual DBE. The Project Code Number (PCN), Category Number, and the Project Line Number can be found in the “material listing” on the Construction Procurement website under the specific letting;
- 3 The dollar value of each proposed DBE subcontract and the percentage of total project contract value this represents. DBE participation may be counted as follows; a) If DBE suppliers and manufactures assume actual and contractual responsibility, the dollar value of materials to be furnished will be counted toward the goal as follows:
  - The entire expenditure paid to a DBE manufacturer;
  - 60 percent of expenditures to DBE suppliers that are not manufacturers provided the supplier is a regular dealer in the product involved. A regular dealer must be engaged in, as its principal business and in its own name, the sale of products to the public, maintain an inventory and own and operate distribution equipment; and
  - The amount of fees or commissions charged by the DBE firms for a bona fide service, such as professional, technical, consultant, or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, supplies, delivery of materials and supplies or for furnishing bonds, or insurance, providing such fees or commissions are determined to be reasonable and customary.
- b) The dollar value of services provided by DBEs such as quality control testing, equipment repair and maintenance, engineering, staking, etc.;
- c) The dollar value of joint ventures. DBE credit for joint ventures will be limited to the dollar amount of the work actually performed by the DBE in the joint venture;
- 4 Written and signed documentation of the bidder’s commitment to use a DBE contractor whose participation is being utilized to meet the DBE goal; and
- 5 Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor’s commitment.

#### **UPON AWARD AND BEFORE A WORK ORDER WIL BE ISSUED**

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

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

the bid, and/or other circumstances beyond the control of the prime contractor.

### **CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS**

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

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

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

- 1 Whether the bidder attended any pre-bid meetings that were scheduled by the Cabinet to inform DBEs of subcontracting opportunities;
- 2 Whether the bidder provided solicitations through all reasonable and available means;
- 3 Whether the bidder provided written notice to all DBEs listed in the DBE directory at the time of the letting who are prequalified in the areas of work that the bidder will be subcontracting;
- 4 Whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with 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 DBE Liaison in the Office of Minority Affairs to give notification of the bidder's inability to get DBE quotes;
- 5 Whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise perform these work items with its own forces;
- 6 Whether the bidder provided interested DBEs with adequate and timely information about the plans, specifications, and requirements of the contract;
- 7 Whether the bidder negotiated in good faith with interested DBEs not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any

rejection should be so noted in writing with a description as to why an agreement could not be reached;

8 Whether quotations were received from interested DBE firms but were rejected as unacceptable without sound reasons why the quotations were considered unacceptable. The fact that the DBE firm's quotation for the work is not the lowest quotation received will not in itself be considered as a sound reason for rejecting the quotation as unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a DBE quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy DBE goals;

9 Whether the bidder specifically negotiated with subcontractors to assume part of the responsibility to meet the contract DBE goal when the work to be subcontracted includes potential DBE participation;

10 Whether the bidder made any efforts and/or offered assistance to interested DBEs in obtaining the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal; and

11 Any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include DBE participation.

#### **FAILURE TO MEET GOOD FAITH REQUIREMENT**

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

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

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

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

### **SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT**

Failure by the prime contractor to fulfill the DBE requirements of a project under contract or to demonstrate good faith efforts to meet the goal constitutes a breach of contract. When this occurs, the Cabinet will hold the prime contractor accountable, as would be the case with all other contract provisions. Therefore, the contractor's failure to carry 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:

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

### **PROMPT PAYMENT**

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

### **CONTRACTOR REPORTING**

All contractors must keep detailed records and provide reports to the Cabinet on their progress in meeting the DBE requirement on any highway contract. These records may include, but shall not be limited to payroll, lease agreements, cancelled payroll checks, executed subcontracting agreements, etc. Prime contractors will be required to submit certified reports on monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal.

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

The Prime Contractor should supply the payment information at the time the DBE is compensated for their work. Form to use is located at:

<http://transportation.ky.gov/Construction/Pages/Subcontracts.aspx>

Photocopied payments and completed form to be submitted to: Office of Civil Rights and Small Business Development 6<sup>th</sup> Floor West 200 Mero Street Frankfort, KY 40622

### **DEFAULT OR DECERTIFICATION OF THE DBE**

If the DBE subcontractor or supplier is decertified or defaults in the performance of its work, and



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

09/14/11

**EXPEDITE PROJECT WORK ORDER**

The Contractor may request that the Department expedite the work order for this project to allow for maximization of time to complete the work. In order for the Department to accomplish this task, the Contractor may be required to “hand carry” all required project documentation to facilitate the process. Immediately UPON NOTIFICATION OF AWARD OF THE CONTRACT, deliver required project documentation to:

Division of Construction Procurement  
200 Mero St.  
Frankfort, KY 40602

**PROJECT TRAFFIC COORDINATOR (PTC)**

Be advised this project is a significant project pursuant to section 112.03.12.

**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.

**SPECIAL NOTES FOR ALUMINUM STRUCTURAL PLATE BOX CULVERT  
ASSEMBLY & INSTALLATION**  
FD52-010-0005-000-007

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**I. DESCRIPTION**

Except as hereafter specified, perform all work in accordance with the Department's 2008 Standard and Supplemental Specifications and Standard and Sepia Drawings, current editions. Section references are to the Standard Specifications. This work shall consist of:

(1) Site preparation and erosion control; (2) Clearing and grubbing and removal of all obstructions; (3) Removal of existing structure; (4) Drilling and blasting, if required, and common and solid rock excavation; (5) Foundation Preparation; (6) Assembly and installation of Aluminum Box Culvert Structural Plates and Accessories; (7) Constructing embankment, slope protection, pavement, and shoulders; (8) Restoration, final dressing, cleanup, and seeding; (9) Maintain and control traffic; and (10) Any other work as specified by this contract.

**I. MATERIALS AND DESIGN**

All materials shall be sampled and tested in accordance with the Department's Sampling Manual. Make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

**A. Aluminum Box Culvert.** The Contractor will furnish unassembled structural plates and accessories for 40.5 LF of 10'-6" Span X 5'-7" Rise Aluminum Structural Plate Box Culvert 0° skewed ends, including invert plate, toe walls, and wingwalls. The Aluminum Box Culvert to be furnished by the Contractor shall be designed for an HS25 loading with a fill cover height between 1.4 feet (minimum) to 4.0 feet (maximum).

**B. Coating.** Furnish RS-2, asphalt coating material conforming to section 806.06.01, aluminastic coating compound conforming to Special Note 9V, commercially available zinc chromate paint, or approved equal. Obtain the Engineer's approval of the coating materials and methods prior to application.

**C. Foundation Preparation, Bedding, and Culvert Trench Backfill.** Contrary to Special Note 9V, furnish Crushed Limestone Size No. 57 wrapped in Geotextile Fabric Type III to stabilize the foundation and bed the Aluminum Box Culvert. Contrary to Special Note 9V, furnish flowable fill, no option, according Section 601.03.03 (B) (5) for an alternative mixture for flowable fill, except design the flowable fill for a minimum 28 day compressive strength of 1000 psi plus one additional bag of cement per cubic yard.

**D. Pavement and Shoulders.** Use Class 2 Asphalt Base 1.00D PG64-22 and Leveling & Wedging PG64-22.

Culvert Replacement  
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**E. Erosion Control.** See Special Note for Erosion Control.

**F. Maintain and Control Traffic.** See Traffic Control Plan.

### **III. CONSTRUCTION METHODS**

Except as specified in these notes, assemble and install the Aluminum Structural Plate Box Culvert furnished by the Department according to Special Note for Aluminum and Steel Structural Plate Box Culverts 9V.

**A. Maintain and Control Traffic.** See Traffic Control Plan.

**B. Erosion Control.** See Special Note for Erosion Control.

**C. Site Preparation.** Be responsible for all site preparation, including, but not limited to: saw cutting pavement and pavement removal; clearing and grubbing and tree removal; common and solid rock excavation; removal of existing culvert, crib wall, obstructions, or any other items; backfilling and embankment in place; disposal of materials, waste, and debris; temporary fencing; temporary and permanent erosion control; restoration, final dressing, cleanup, and seeding and protection. Perform all site preparation only as approved or directed by the Engineer.

**D. Excavation and Removal of Existing Structures.** Prior to excavation and culvert removal, sawcut pavement to a neat edge to allow for removal of the existing culvert and sufficient width required for assembly and installation of the new Aluminum Structural Plate Box Culvert. Obtain the Engineer's approval of the skew and trench width prior to saw cutting pavement. Close the road as allowed by the Traffic Control Plan and excavate culvert trench to allow assembly and installation of the Aluminum Structural Plate Box Culvert. Be responsible for all common and solid rock excavation, pavement removal, and removal of the existing structure and the minimum amount of crib wall to allow assembly and installation of the Aluminum Box Culvert. Provide positive drainage of slopes and ditches at all times during and upon completion of construction. Waste all removed materials at sites off the right of way obtained by the Contractor at no additional cost to the Department. Perform all excavation and removal of existing structure and crib wall only as approved or directed by the Engineer.

**E. Structure Excavation.** Be responsible for all excavation required for foundation preparation, culvert toe walls, and all other excavation required by the work. Excavate rock in channel as required to allow for installation of the fabric wrapped aggregate for foundation and bedding, the Aluminum Box Culvert within the designed fill cover heights, and asphalt base at the final grade elevation of KY 5. Provide positive drainage of slopes and ditches at all times during and upon completion of construction. Waste all excavation at sites off the right of way obtained by the Contractor at no additional cost to the

## Culvert Replacement Page 3 of 6

Department. Perform all structure excavation only as approved or directed by the Engineer.

**F. Foundation Preparation and Bedding.** Contrary to Special Note 9V, construct foundation and bedding of Crushed Limestone Size No. 57 wrapped in Geotextile Fabric Type III as directed by the Engineer. Construct minimum 2-foot thickness.

**G. Aluminum Box Culvert.** Be responsible for field layout and survey of the proposed Aluminum Box Culvert. Install the culvert at the approximate skew of the existing culvert with projecting ends. Provide for the culvert manufacturer to furnish a technical representative on site for consulting purposes during all phases of the assembly, installation, and backfilling over culvert. After constructing the fabric wrapped granular aggregate foundation and bedding, assemble the Aluminum Structural Plate Box Culvert in the prepared trench according to the manufacturer's recommended installation procedures. Obtain the Engineer's approval of the final centerline, flow line elevations, and skew angle prior to backfilling. Provide positive drainage upon completion of the project.

**H. Backfill and Embankment.** Prior to backfilling, coat the assembled aluminum box culvert outer surfaces that will be in contact with flowable fill with the approved coating material. Backfill the culvert trench with flowable fill to the roadway subgrade elevation. Contrary to Special Note 9V, the Department will not require alumilastic coating. Complete the embankments outside the culvert trench with granular backfill or embankment in place as approved by the Engineer. Warp finished slopes to match adjacent undisturbed slopes as directed by the Engineer. Provide positive drainage of slopes and ditches at all times during and upon completion of construction.

**I. Clean and Re-establish the Existing Shoulders and Ditches.** Grade and restore the shoulders and ditches in the project limits to match the existing adjacent features to be left in place or as directed by the Engineer. Provide positive drainage of slopes and ditches at all times during and upon completion of construction.

**J. Pavement & Shoulder Restoration.** Restore pavement and shoulders as shown on the typical section. After constructing culvert, flowable fill backfill and embankment, construct asphalt base over the culvert trench and reopen KY 5 to through traffic. After opening to traffic, correct settlement with Leveling and Wedging until the Engineer determines the culvert backfill and base are sufficiently stabilized. Provide positive drainage of pavement and shoulders at all times during and upon completion of construction.

**K. Final Dressing, Clean Up, and Seeding and Protection.** After all work is completed, completely remove waste and debris from the construction site. Perform Class A Final Dressing on all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas according to the Erosion Control Plan.

**L. Disposal of Waste.** Dispose of all excess materials, waste, and debris off the right-of-way at sites obtained by the Contractor at no additional cost to the Department. See Special

## Culvert Replacement

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Note for waste and borrow.

**M. Restoration.** Be responsible for all damage to public and/or private property resulting from the work. Restore all damaged features in like kind materials and design.

**N. On-Site Inspection.** Make a thorough inspection of the site prior to submitting a bid and be thoroughly familiar with existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid as evidence of this inspection having been made and will not honor any claims for money or grant Contract time extensions resulting from site conditions.

**O. Caution.** Do not take information shown on the drawings and in this proposal and the types and quantities of work listed as an accurate or complete evaluation of the material and conditions to be encountered during construction. Without regard to the materials encountered, all roadway excavation shall be unclassified. It shall be distinctly understood that any reference to rock, earth, or any other material on the drawings, whether in numbers or words, letters, or lines, is solely for the Department's information and is not to be taken as an indication of classified excavation or the quantity of either rock, earth, or any other material involved. The bidder must draw his own conclusion as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation or extension of Contract time if the conditions encountered are not in accordance with the information shown.

**P. Right-of-Way Limits.** The Department has not determined exact limits of Right-of-Way. Limit work activities to obvious Right-of-Way, Permanent or Temporary Easements, and work areas secured by the Department through Consent and Release of the adjacent property owners. Be responsible for all encroachments onto private lands.

**Q. Utility Clearance.** Work around and do not disturb existing utilities. It is not anticipated that any utility facilities will require relocation and/or adjustment; however, in the event utilities are discovered that require relocation, the utility companies will work concurrently with the Contractor while relocating their facilities. Working days will not be charged for those days on which work on the controlling item is delayed due to the utility company's phase of the work, as provided in the Specifications. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work.

**R. Staking.** See special Note for Staking.

## IV. METHOD OF MEASUREMENT

Only the bid items listed will be measured for payment. All other items required to complete the work shall be incidental to the listed items.

## Culvert Replacement

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**A. Maintain and Control Traffic.** See Traffic Control Plan.

**B. Site Preparation.** Other than the bid items listed, Site Preparation will be measured as each.

**C. Foundation Preparation.** Foundation Preparation will be measured as one lump sum. Crushed limestone and geotextile fabric used in foundation preparation and culvert bedding will not be measured for separate payment, but shall be incidental to Foundation Preparation.

**D. Manufacturer's Technical Representative.** The Department will not measure the manufacturer's technical representative for separate payment, but shall be incidental to the assembly and installation of the Aluminum Box Culvert.

**E. Erosion Control.** See Special Note for Erosion Control.

**F. Clearing and Grubbing, Excavation and Embankment.** Contrary to Sections 202, 203, 204, 205, and 206; Clearing and Grubbing, Roadway Excavation, Structure Excavation, Borrow Excavation, and Embankment in Place will not be measured for separate payment, but shall be incidental to Site Preparation.

**G. Aluminum Box Culvert Assembly and Installation.** The Department will measure the actual length of the assembled and installed culvert at the center flow line in linear feet. The Department will not measure assembly and installation of ribs, wales, stiffeners, footing pads, internal braces, invert plate, toe walls, other accessories; furnishing and applying coatings; backfill, including flowable fill; and furnishing the manufacturer's technical representative for separate payment but shall be incidental to the Aluminum Box Culvert Assembly and Installation.

**H. Restoration, Final Dressing, Clean Up, and Seeding and Protection.** Restoration, final dressing, clean up, and seeding and protection will not be measured for payment, but shall be incidental to Site Preparation and Erosion Control as applicable.

## V. Basis of Payment

No direct payment will be made other than for the bid items listed. All other items required to complete the construction shall be incidental to the bid items listed.

**A. Maintain and Control Traffic.** See Traffic Control Plan.

**B. Aluminum Box Culvert Assembly and Installation.** Payment at the contract unit price per linear foot shall be full compensation for all materials, equipment, labor, and incidentals

## Culvert Replacement

### Page 6 of 6

necessary to complete the work as specified in these notes and the Standard Specifications for assembling and installing the Aluminum Box Culvert Structural Plates and Accessories furnished by the Contractor; furnishing and applying coatings, backfilling, and furnishing manufacturer's technical representative.

**C. Foundation Preparation.** Payment at the contract lump sum unit price shall be full compensation for all materials, equipment, labor, and incidentals for structure excavation, geotextile fabric wrapped crushed limestone foundation, bedding, and all other expenses and all incidentals to prepare foundation and bedding for the Aluminum Box Culvert. Payment for Foundation Preparation will be made upon satisfactory completion of geotextile fabric wrapped crushed limestone foundation.

**D. Site Preparation.** Payment at the contract unit price each shall be full compensation for all materials, equipment, labor, and incidentals, for site preparation including, but not limited to: saw cutting pavement and pavement removal; clearing and grubbing and tree removal; common and solid rock excavation; removal of crib wall, obstructions, or any other items; backfilling and embankment in place; disposal of materials, waste, and debris; temporary fencing; temporary and permanent erosion control; restoration, final dressing, cleanup, and seeding and protection. Payment for Site Preparation will be made upon satisfactory completion of final seeding and protection of site.

**E. Erosion Control.** See Special Note for Erosion Control.



## **SPECIAL NOTES FOR PIPE/CULVERT EXTENSIONS**

### **FD52 010 0005 000-007**

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Except as provided herein, perform all work in accordance with the Department's 2008 Standard Specifications, interim Supplemental Specifications, Standard and Sepia Drawings, and Special Notes and Special Provisions, current editions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

(1) Maintaining and Controlling Traffic; (2) Site preparation; (3) Constructing box culvert and pipe installations/extensions; (4) Ditching and Shouldering; (5) Erosion Control; and (6) any other work as specified by this contract.

## **II. MATERIALS**

Provide for sampling and testing of all materials in accordance with the Department's Sampling Manual. Make materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these notes.

**A. Maintain and Control Traffic.** See Traffic Control Plan.

**B. Culvert Pipe.** Furnish pipe meeting the requirements of Section 810. Select pipe for Ph range Medium and minimum fill cover height according to Sepia Drawing 009 and Standard Drawing RDI-035-01. Use flowable fill for pipe backfill according to Section 601.03.03(B). Verify maximum and minimum fill cover height required for new pipe prior to construction and obtain the Engineer's approval of the class or gauge of pipe and type of coating prior to delivering pipe to the project. Furnish approved connecting bands or pipe anchors and toe walls.

**C. Flowable Fill.** See Section 601.

**D. Erosion Control.** See Special Note for Erosion Control.

**E. Guardrail.** See Section 814.

**F. Concrete.** See Section 601.

**G. Steel Reinforcement.** See Section 811.

**H. DGA Base.** See Section 805.

## **III. CONSTRUCTION METHODS**

**A. Maintain and Control Traffic.** See Traffic Control Plan.

**B. Site Preparation.** Be responsible for all site preparation, including but not limited to saw cutting and removing pavement; clearing and grubbing, staking, incidental excavation and backfilling; common and solid rock excavation; embankment in place; removal of obstructions, or any other items; foundation preparation; removing concrete masonry; restoration of pavements, slopes, and all disturbed areas; final dressing and cleanup; and disposal of materials. Limit clearing and grubbing to the absolute minimum required to construct drainage features. Obtain Engineer's approval before removing any trees. Perform all site preparation only as approved or directed by the Engineer. The bidder must draw his own conclusions as to the conditions to be encountered.

**C. Ditching and Shouldering.** Perform ditching and shouldering according to Section 209 and the applicable Standard Drawings, Sepia Drawings, and Typical Sections provided. All excavation and/or embankment needed to achieve a typical section will be incidental to the bid item for Ditching and Shouldering. Final front and back slopes less than a 3:1 will be determined by the engineer.

Immediately prior to completion, clean all existing and new culvert and entrance pipes, and clean and grade ditches to drain. Provide positive drainage of pavement, shoulders, slopes, and ditches at all times during and upon completion of construction.

Extra embankment needed to construct slopes will be considered incidental to the bid item for Ditching and Shouldering.

Benching and compaction of the earth embankment for shoulders shall be performed according to the Section 206.03 and will be incidental to the bid item Ditching and Shouldering.

**D. Erosion Control.** See Special Note for Erosion Control Plan.

**E. Removing Headwalls, Pipe and Excavation.** Remove existing concrete masonry and/or culvert and entrance pipe at the approximate location noted on the summary. The Engineer will determine the actual location at the time of construction. Saw cut the existing asphalt pavement, PCC pavement, and base to a neat edge prior to excavation and removal of the existing pipe. Obtain the Engineer's approval of trench width prior to cutting pavement. Excavate trench and remove pipe as directed or approved by the Engineer without disturbing existing underground utilities. Waste excavated materials and removed pipe at approved sites off the right of way obtained by the Contractor at no additional cost to the Department.

**F. Concrete Box Culvert Extensions.** Construct culvert extension and wing walls according to the attached drawings. Obtain the Engineer's approval of the final centerline, flow line, length, skew, and wing wall alignment prior to constructing. Provide positive drainage upon completion of the project.

- G. Pipe.** Construct pipe at the location designated by the Engineer. The Engineer will establish final centerline, flow lines and skew to obtain the best fit of the existing ditches and channels. Construct pipe bedding according to Section 701 and the applicable Standard or Sepia Drawings. Use approved connecting bands or tapered sleeves as required. Pipe bands and tapered sleeves will be considered incidental to the bid item for the respective size culvert pipe. Prior to backfilling pipe, obtain the Engineer's approval of the pipe installation. Provide positive drainage upon completion of pipe installation.
- H. Pipe Backfill.** Backfill the pipe with flowable fill as per Section 701. Backfill pipe to within 6" of finished grade. Construct two 3" lifts of Class 2 Asphalt Base 1.00D PG64-22 prior to opening to traffic. Allow the asphalt base to be exposed to traffic for a minimum of 7 days to allow for settlement. Level and wedge any settlement at the direction of the Engineer.
- I. Embankments.** Backfill pipe/culvert extensions and construct shoulder embankments as directed by the Engineer. Provide positive drainage of slopes and median at all times during and upon completion of construction. Extra embankment needed to construct slopes according to the provided typical sections will be considered incidental to the bid item for Culvert Pipe. Backfill material for box culvert extensions and extra embankment needed to construct sloped according to the provided typical sections will be considered incidental to the bid item for Site Preparation.
- J. Final Dressing, Clean Up, Seeding and Protection, and Restoration.** After all work is completed, remove all waste and debris from the job site. Grade all disturbed areas to blend with the adjacent roadway features and to provide a suitable seed bed. Perform Class A Final dressing on all disturbed areas. Seed and protect all disturbed earthen areas according to the Special Notes for Erosion Control Plan.
- K. Property Damage.** Do not disturb or damage existing ROW markers unless directed by engineer. Be responsible for all damage to public and/or private property resulting from the work. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.
- L. Disposal of Waste.** Dispose of all removed concrete, pipe, pavement, debris, excess and unsuitable excavation, and all other waste at approved sites off the right of way obtained by the Contractor at no additional cost to the Department (see Special Note for Waste and Borrow).
- M. On-Site Inspection.** Before submitting a bid for the work, make a thorough inspection of the site and determine existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid to be evidence of this inspection having been made. The Department will not honor any claims for money or time extension resulting from site conditions.

- N. Right-of-Way Limits.** At various locations it may be necessary to work beyond Right-of-Way limits. Unless there is a consent release from a property owner, limit work activities to the Right-of-Way and work and staging areas secured by the Contractor at no additional cost to the Department. The department will secure consent and releases from property owners through the engineer.
- O. Caution.** The information in this proposal and shown on the plans and the type of work listed herein are approximate only and are not to be taken as an accurate evaluation of the materials and conditions to be encountered during construction; the bidder must draw his own conclusions. The Department does not give any guarantee as to the accuracy of the data and no claim for money or time extension will be considered if the conditions encountered are not in accordance with the information shown.
- P. Control.** Perform all work under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties.

Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and his decision shall be final and binding upon the Contractor.

#### **IV. METHOD OF MEASUREMENT**

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Site Preparation.** The Department will NOT measure Site Preparation for pipe for payment, but will consider it incidental to Culvert Pipe. The Department will measure Site Preparation for box culvert extensions as each. This includes all extensions to a given box culvert, not as individual units per inlet or outlet.
- C. Foundation Preparation.** The Department will NOT measure Foundation Preparation for pipe for payment, but will consider it incidental to Culvert Pipe. The Department will measure Foundation Preparation for box culvert extensions as lump sum. This includes all extensions to a given box culvert, not as individual units per inlet or outlet.
- D. Remove Structure.** The Department will measure the removal of existing box structures that are being replaced with pipe as each.

- E. Flowable Fill.** The Department will NOT measure Flowable Fill for payment, but will consider it incidental to Culvert Pipe.
- F. Erosion Control.** See Special Note for Erosion Control.
- G. Ditching and Shouldering.** The Department will measure the quantity as the gross length of the project measured in linear feet along the centerline of the roadway. The Department will include in the quantity all work required on the road approaches within the limits of right-of-way. See Section 209.04.

## **V. BASIS OF PAYMENT**

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Site Preparation.** Payment for Site Preparation at the Contract price for each shall be full compensation for furnishing all materials, labor, and equipment as needed for Site Preparation of box culvert extensions. Payment for Site Preparation will be made upon satisfactory completion of final seeding and protection of each applicable site.
- C. Culvert Pipe.** Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor, materials, equipment and incidentals for furnishing and installing new culvert pipe, and furnishing and placing flowable fill. Pipe bands, toewalls, slope restoration, final dressing and cleanup, disposal of waste, and tapered sleeves will be considered incidental to the bid item for the respective size culvert pipe.
- D. Foundation Preparation.** Payment for Foundation Preparation as a lump sum shall be full compensation for furnishing all materials, labor, and equipment as needed for Foundation Preparation of box culvert extensions. Payment for Foundation Preparation will be made upon satisfactory completion of concrete installation of each applicable site.
- E. Erosion Control.** See Special Note for erosion Control.
- F. Ditching and Shouldering.** The Department will make payment for the completed and accepted quantities in linear feet.

### **SPECIAL NOTE FOR STAKING**

Perform Contractor Staking according to Section 201, except:

1. Contrary to Section 201, perform items 1-4 usually performed by the Engineer; and
2. Prepare pipe/box culvert extension sections and revise as necessary to provide proper alignment of culvert to conform to the development plan, accommodate existing site conditions, make best use of existing drainage swales, and minimize disturbance of vegetation for median ditches; and
3. Produce and furnish to the Engineer "As Built" plans; and
4. Perform any and all other staking operations required to control and construct the work; and

## **SPECIAL NOTE FOR ASPHALT MIXTURES USING RECLAIMED MATERIALS**

**\*\* The Contractor may elect to use this Special Note in lieu of Section 409 of the 2008 Standard Specifications for Road and Bridge Construction. The Contractor must notify the Department in writing of which specification they plan to use prior to beginning work.**

**2012-409.01 DESCRIPTION.** Use reclaimed asphalt pavement (RAP) from Department projects or other approved sources in hot mix asphalt (HMA) or warm mix asphalt (WMA) provided mixture requirements are satisfied. For other sources to be approved, satisfactorily establish to the Engineer that the quality of the material is acceptable.

Use either pre-consumer (manufacturer waste or new) or post-consumer reclaimed asphalt shingles (RAS) that are processed such that all the material passes the 3/8-in. sieve. Ensure pre-consumer RAS is free of deleterious materials. Ensure post-consumer RAS does not contain more than 1.5 percent wood by mass or more than 3.0 percent deleterious materials by mass.

**2012-409.02 MATERIALS AND EQUIPMENT.** Conform to the guidelines in Subsection 2012-409.03.03 for the required grade of asphalt binder which is based on the percentage of effective binder content of the mixture.

**2012-409.03 CONSTRUCTION.** Keep reclaimed material of different gradation, asphalt binder content, asphalt binder properties, and aggregate properties separate at all times, including when stockpiling and feeding. The Department may approve other methods and procedures provided that all characteristics of the reclaimed material remain uniform.

**2012-409.03.01 Polish-Resistant Aggregate.** When electing to utilize polish-resistant aggregate in reclaimed material to satisfy a portion of the polish-resistant aggregate requirements for the mix, provide documentation to the Engineer's satisfaction that the reclaimed material consists of the specified amount of polish-resistant aggregate. Provide samples of the reclaimed material to the Engineer for verification testing.

**2012-409.03.02 Asphalt Binder Content Adjustment for RAS.** Recognizing that not all asphalt binder in RAS is activated during the mixing operation to fully blend with the virgin materials, the Department will reduce the asphalt binder content determined by Kentucky Method 64-405 for RAS by 25 percent.

### **2012-409.03.03 Preparation of Mixture.**

**A) Mix Requirements.** Conform to the Contract requirements for each mixture produced using reclaimed material consisting of RAP, RAS, or a combination of RAP and RAS. Conform to the following table to select the appropriate grade of virgin asphalt binder to blend with the reclaimed material. Calculate the percentage of effective binder content as follows:

*Percentage of effective binder content =  $[(A*B) + (0.75*C*D)]/E$ , where*

A = Asphalt binder content of the RAP (%);  
B = Percentage of RAP in the mix (%);  
C = Asphalt binder content of the RAS (%);  
D = Percentage of RAS in the mix (%); and  
E = Effective binder content of the mix (%).

ASPHALT MIXTURES WITH NOMINAL-MAXIMUM AGGREGATE SIZE OF 0.5 in., 0.38 in., and No. 4		
ASPHALT BINDER SPECIFIED IN MIXTURE BID ITEM	VIRGIN ASPHALT BINDER	
	RAP	
	≤ 20 % Effective Binder Content	21-30 % Effective Binder Content
PG 64-22	PG 64-22	PG 58-28
PG 76-22	PG 76-22	-----
	RAS	
	≤ 13 % Effective Binder Content	14-20 % Effective Binder Content
	PG 64-22	PG 58-28
PG 64-22	PG 64-22	PG 58-28
PG 76-22	-----	-----
	RAP and RAS	
	≤ 15 % Effective Binder Content	16-25 % Effective Binder Content
	PG 64-22	PG 58-28
PG 64-22	PG 64-22	PG 58-28
PG 76-22	-----	-----

ASPHALT MIXTURES WITH NOMINAL-MAXIMUM AGGREGATE SIZE OF 1.50 in., 1.00 in., and 0.75 in.		
ASPHALT BINDER SPECIFIED IN MIXTURE BID ITEM	VIRGIN ASPHALT BINDER	
	RAP	
	≤ 25 % Effective Binder Content	26-35 % Effective Binder Content
PG 64-22	PG 64-22	PG 58-28
PG 76-22	PG 76-22	-----
	RAS	
	≤ 16 % Effective Binder Content	17-24 % Effective Binder Content
	PG 64-22	PG 58-28
PG 64-22	PG 64-22	PG 58-28
PG 76-22	-----	-----
	RAP and RAS	
	≤ 18 % Effective Binder Content	19-30 % Effective Binder Content
	PG 64-22	PG 58-28
PG 64-22	PG 64-22	PG 58-28
PG 76-22	-----	-----

**B) Mixing.** Obtain the Engineer's approval for the method of incorporating the reclaimed material into the mixture. Thoroughly mix the new and reclaimed materials into a uniform mass. Ensure that the final mixture conforms to all requirements of the Contract. Ensure that the moisture content of the final mixture is not detrimental to the handling, hauling, placing, or compacting of the mixture.

**2012-409.04 MEASUREMENT.** The Department will not measure reclaimed material separately but will include it in the measured quantities of asphalt mixture produced.

**2012-409.05 PAYMENT.** The Department will make payment for the completed and accepted quantities under the appropriate pay item for the asphalt mixture being produced.  
The Department will not make separate payment for incorporating reclaimed material. The Department will not increase or decrease the Contract unit prices for any asphalt mixture on the project as a result of using, or not using, reclaimed material in the asphalt mixtures.



### **SPECIAL NOTE FOR LIQUIDATED DAMAGES**

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of \$2,500 per day for each calendar day or part of a calendar day a KY 5 road closure remains in place beyond the time allowed by the Traffic Control Plan or during days prohibited by the Engineer.

Ultimate fixed completion date for this project will be October 15, 2012. All asphalt items (final asphalt base backfill and final asphalt leveling and wedging over pipe/aluminum box installations) shall be completed by October 1, 2012. Liquidated Damages for failure to complete project on time will be assessed following Section 108.09.

Contrary to Section 108.09, Liquidated Damages will be assessed regardless of whether seasonal limitations prohibit the Contractor from performing work on the controlling operation.

All liquidated damages will be applied accumulatively.

All other applicable portions of Section 108 apply.

## **SPECIAL PROVISION FOR WASTE AND BORROW SITES**

Obtain U.S. Army Corps of Engineer's approval before utilizing a waste or borrow site that involves "Waters of the United States". The Corps of Engineers defines "Waters of the United States" as perennial or intermittent streams, ponds or wetlands. The Corps of Engineers also considers ephemeral streams, typically dry except during rainfall but having a defined drainage channel, to be jurisdictional waters. Direct questions concerning any potential impacts to "Waters of the United States" to the attention of the appropriate District Office for the Corps of Engineers for a determination prior to disturbance. Be responsible for any fees associated with obtaining approval for waste and borrow sites from the U.S. Army Corps of Engineer or other appropriate regulatory agencies.

1-296 Waste & Borrow Sites  
01/02/2012

## **COORDINATION OF WORK WITH OTHER CONTRACTS**

Be advised, there may be an active project(s) adjacent to or within this project. The Engineer will coordinate the work of the Contractors. See Section 105.06.

1-3193 Coordination Contracts  
01/02/2012

## SPECIAL NOTES FOR GUARDRAIL

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### I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's Standard and Supplemental Specifications and Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications.

Furnish all equipment, labor, materials, and incidentals for the following work items:

(1) Site preparation; (2) Remove existing guardrail systems; (3) Construct Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable; (4) Delineators for guardrail; (5) Maintain and control traffic; and (6) all other work specified as part of this contract.

### II. MATERIALS

Except as specified herein, provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual and make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

**A. Maintain and Control Traffic.** See Traffic Control Plan.

**B. Guardrail.** Furnish guardrail system components according to section 814 and the Standard Drawings; except use steel posts only, no alternates.

**C. Delineators for Guardrail.** Furnish white and/or yellow Delineators for Guardrail according to the Delineators for Guardrail Sepia Drawing.

**D. Erosion Control.** See Special Notes for Erosion Control.

### III. CONSTRUCTION METHODS

**A. Maintain and Control Traffic.** See Traffic Control Plan.

**B. Site Preparation.** Remove existing guardrail system including the guardrail end treatments, Bridge End connectors and all other elements of the existing guardrail system as per Section 719, except that the Contractor will take possession of all concrete posts and all concrete associated with existing bridge and/or guardrail end treatments. Locate all disposal areas off the Right of Way. Be responsible for all site preparation, including but not limited to, clearing and grubbing, excavation, embankment, and removal of all obstructions or any other items; regrading, reshaping, adding and compacting of suitable materials on the existing shoulders to provide proper template or foundation for the

## Guardrail

### Page 2 of 3

guardrail; filling voids left as the result of removing existing guardrail and guard posts with dry sand; temporary pollution and erosion control; disposal, of excess and waste materials and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the engineer.

**C. Guardrail.** Except as specified herein, construct guardrail system according to Section 719 and the Standard Drawings. Locations listed on the summary and/or shown on the drawings are approximate only. The Engineer will determine the exact termini for individual guardrail installations at the time of construction. Unless directed otherwise by the Engineer, provide a minimum two (2) foot shoulder width. Construct radii at entrances and road intersections as directed by the Engineer.

Erect guardrail to the lines and grades shown on current Standard Drawings or as directed by the Engineer by any method approved by the Engineer which allows construction of the guardrail to the true grade without apparent sags.

When removing existing guardrail and installing new guardrail, do not leave the blunt end exposed where it would be hazardous to the public. When it is not practical to complete the construction of the guardrail and the permanent end treatments and terminal sections first, provide a temporary end by connecting at least 25 feet of rail to the last post, and by slightly flaring, and burying the end of the rail completely into the existing shoulder. If left overnight, place a drum with bridge panel in advance of the guardrail end and maintain during use.

**D. Delineators for Guardrail.** Construct Delineators for Guardrail according to the Delineators for Guardrail Sepia Drawing.

**E. Property Damage.** Be responsible for all damage to public and/or private property resulting from the work. Restore damaged roadway features and private property at no additional cost to the Department.

**F. Coordination with Utility Companies.** Locate all underground, above ground and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of guardrail operations at no additional cost to the Department.

**G. Right of Way Limits.** The Department has not established exact limits of the Right-of-Way. Limit work activities to obvious Right-of-Way, permanent or temporary easements, and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for all encroachments onto private lands.

Guardrail  
Page 3 of 3

**H. Disposal of Waste.** Dispose of all removed concrete, debris, and other waste and debris off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department. See Special; Note for Waste and Borrow.

**I. Final Dressing, Clean Up, and Seeding and Protection.** Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas according to the Special Notes for Erosion Control.

**J. Erosion Control.** See Special Notes for Erosion Control.

**IV. METHOD OF MEASUREMENT**

**A. Maintain and Control Traffic.** See Traffic Control Plan.

**B. Site preparation.** Other than the bid items listed, the Department will not measure Site Preparation for separate payment but shall be incidental to Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections as applicable.

**C. Guardrail.** See Section 719.04.

**D. Delineators for Guardrail.** See Delineators for Guardrail Sepia Drawing.

**E. Erosion Control.** See Special Notes for Erosion Control.

**V. BASIS OF PAYMENT**

**A. Maintain and Control Traffic.** See Traffic Control Plan.

**B. Guardrail.** See Section 719.05.

**C. Delineators for Guardrail.** See Delineators for Guardrail Sepia Drawing.

**D. Erosion Control.** See Special Notes for Erosion Control.

### **SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS**

Consider the dimensions shown on the typical sections for pavement and shoulder widths and thickness' to be nominal or typical dimensions. The Engineer may direct or approve varying the actual dimensions to be constructed to fit existing conditions. Do not widen existing pavement or shoulders unless specified elsewhere in this proposal or directed by the engineer.

1-3725 Typical Section Dimensions  
01/02/2012

## **TRAFFIC CONTROL PLAN**

### **FD52-010-0005-000-007**

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### **TRAFFIC CONTROL GENERAL**

Except as provided herein, maintain and control traffic in accordance with the 2008 Standard and Supplemental Specifications and the Standard and Sepia Drawings, current editions. Section references are to the Standard Specifications. Except for the roadway and traffic control bid items listed, 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 like new condition, at the beginning of the work and maintained in like new condition until completion of the work.

### **PROJECT PHASING & CONSTRUCTION PROCEDURES FOR ALUMINUM BOX**

Close KY 5 to through traffic for removal of the existing culvert, construction of the new Aluminum Structural plate Box Culvert, and roadway restoration through the asphalt base course and surface course, subject to the following conditions:

1. The Department will permit the Contractor to close KY 5 to through traffic for a single period after work order is issued for a maximum of 9½ calendar days beginning at 6:00 PM Friday and ending at 6:00 a.m. Monday of the following week. Select a period within this time frame and submit to the Engineer for approval a minimum of seven (7) calendar days prior to proposed closure. Obtain the Engineer's approval of a work schedule prior beginning work.
2. The Department will prepare a Public Information Plan. Notify the Engineer immediately and obtain prior approval of any deviations from the previously approved closure schedule.
3. Be responsible for advance warning signs, road closure signs, barricades, drums, work zone and pavement condition warning signs as shown on the Standard Drawings and additional signs as directed by the Engineer. If deemed necessary by the Engineer, the department will sign and maintain a detour during construction.
4. The Department will not require the Contractor to provide continuous access to single family, duplex, or triplex residential properties or farms during working hours; however, the Contractor shall provide reasonable egress and ingress to each such property when actual operations are not in progress at that location. Limit the time during which a residential or farm entrance is blocked to the minimum length of time required for actual operations, do not extend the time for the Contractor's



Traffic Control Plan  
Page 2 of 4

convenience, and in no case allow the blockage to exceed six (6) hours. Notify all residents twenty-four hours in advance of any driveway or entrance closings and make any accommodations necessary to meet the access needs of disabled residents.

When the Aluminum Box Culvert, backfill, embankment, and asphalt base course have been constructed, reopen KY 5 to through traffic.

At all other times during construction, maintain alternating one way traffic during working hours and maintain one lane of traffic in each direction during non-working hours. Provide a clear lane width of 9 feet; however, make provisions for passage of vehicles of up to 16 feet in width. If traffic should be stopped due to construction operations, and a school bus on an official run arrives on the scene, make provisions for the passage of the bus as quickly as possible.

### **CONCRETE BOX CULVERT EXTENSIONS AND CULVERT PIPE INSTALLATION**

Maintain alternating one way traffic during working hours and maintain one lane of traffic in each direction during non-working hours. Provide a clear lane width of 9 feet; however, make provisions for passage of vehicles of up to 16 feet in width. If traffic should be stopped due to construction operations, and a school bus on an official run arrives on the scene, make provisions for the passage of the bus as quickly as possible.

The Engineer may allow for temporary closures of KY 5 for removal and replacement at each culvert pipe installation location. These closures will be limited to 12 hours and may not occur concurrently with any other closures. The Engineer shall deem limits and requirements for length of closure as well as approve the times allowed for closures.

The Contractor shall provide reasonable egress and ingress to each such property when actual operations are not in progress at that location. Limit the time during which a residential or farm entrance is blocked to the minimum length of time required for actual operations, do not extend the time for the Contractor's convenience, and in no case allow the blockage to exceed six (6) hours. Notify all residents twenty-four hours in advance of any driveway or entrance closings and make any accommodations necessary to meet the access needs of disabled residents.

### **BLASTING**

If required, perform blasting only during the period when the road is closed to through traffic. Halt local traffic, blast, clean the existing pavement, and return traffic to normal local traffic operation subject to the following conditions:

1. Halt all local traffic at a safe distance, as determined by the Engineer, on either side of the impending explosion.

Traffic Control Plan  
Page 3 of 4

2. Traffic may be halted a maximum of 15 minutes per hour to allow the execution of the "shot" and to allow for removal of rock fragments and debris.
3. Have suitable equipment at the site and in a running mode for the purpose of cleaning the existing pavement.
4. Immediately after any blast, inspect the pavement for any debris that may be a hazard to traffic prior to allowing traffic to proceed. Return traffic to normal operation in the least amount of time possible.

## **LANE & SHOULDER CLOSURES**

When the road is open to through traffic, do not leave lane closures in place during non-working hours. Maintain lane closures only during hours of actual operations. Reduce Lane closures to a shoulder closure, or remove as appropriate, when active operations do not require a lane closure. The Engineer will permit shoulder closures during non-working hours; however do not park equipment or store materials on a closed shoulder during non-working hours. The Engineer may designate days and hours when lane and/or shoulder closures will not be allowed.

## **SIGNS**

Contrary to section 112.04.02, only long term signs (signs 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 shall be incidental to Maintain and Control Traffic. Individual signs will be measured only once for payment, regardless of how many times they are set, reset, relocated, and removed during the duration of the project. Replacements for damaged signs directed by the Engineer to be replaced due to poor condition or reflectivity will not be measured for payment.

## **BARRICADES**

Barricades used in lieu of barrels and cones for channelization or delineation shall be incidental to Maintain and Control Traffic according to Section 112.04.01. Barricades used to protect pavement removal areas and for road closures will be bid as each according to Section 112.04.04. The Department will measure for payment the maximum number of barricades in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual barricades only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged barricades directed by the Engineer to be replaced due to poor condition or reflectivity. Retain possession of the Barricades upon completion of construction.

Traffic Control Plan  
Page 4 of 4

## **TRAFFIC COORDINATOR**

Furnish a Project Traffic Coordinator according to Section 112.03.12 for a significant project. The Traffic Coordinator shall provide for inspection of the project maintenance of traffic a minimum of once every two hours during the Contractor's operations and at any time a lane or road closure is in place. Provide the project personnel with access on the project to a radio or telephone to be used in case of emergencies or accidents.

## **PAVEMENT MARKINGS**

There are pavement markings in the vicinity of the existing culvert. If the Engineer determines that pavement markings are required after installation of the new culvert, the Contractor will provide for the placement of the markings.

## **PAVEMENT EDGE DROP-OFFS**

Do not allow a pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation with an elevation difference greater than 1½". Place warning signs (MUTCD WY-11 or WE-9A) in advance of and at 1500 foot intervals throughout the drop-off area. Provide dual posting on both sides of the traveled way. Wedge transverse transitions between resurfaced and unresurfaced areas which traffic may cross with asphalt mixture for Leveling and Wedging. Remove the wedges prior to placement of the final surface course.

Protect pavement edges and other drop-offs that traffic is not expected to cross, except accidentally, as follows:

Less than 2" - No protection required.

2" to 4" - Place plastic drums, vertical panels, or barricades every 50 feet. During daylight working hours only, the Engineer will allow the use of cones in lieu of plastic drums, panels, and barricades. Wedge drop-off with DGA or asphalt mixture for Leveling and Wedging with a 1:1 or flatter slope in daylight hours, or 3:1 or flatter slope during nighttime hours, when work is not active in the drop-off area.

Culvert Trench - Close road during allowable period when culvert trench is open. Protect local traffic by placing Type III Barricades directly in front of the trench facing both directions of travel. Provide warning signs as shown on the Standard Drawings or as directed by the Engineer. Provide protection for pedestrian traffic as approved by the Engineer.

# Right-of-Way Certification Form

Revised 2/22/11

☒ Federal Funded  
☐ State Funded

☒ Original  
☐ Re-Certification

This form must be completed and submitted to FHWA with the PS&E package for federal-aid funded Interstate, Appalachia, and Major projects. This form shall also be submitted to FHWA for all federal-aid projects that fall under Conditions No. 2 or 3 outlined elsewhere in this form. When Condition No. 2 or 3 apply, KYTC shall resubmit this ROW Certification prior to construction contract Award. For all other federal-aid projects, this form shall be completed and retained in the KYTC project file.

Date: October 6, 2011

Project Name: HSIP KY 5  
Project #: MP 0 to MP 6.8  
Item #: 09-908.00

Letting Date: May 2012  
County: BOYD  
Federal #: HSIP 5244 (014)

Description of Project: End treatments and guardrail, brush and limb removal, drainage structures

## Projects that require NO new or additional right-of-way acquisitions and/or relocations

- ☒ The proposed transportation improvement will be built within the existing rights-of-way and there are no properties to be acquired, individuals, families, and businesses ("relocatees") to be relocated, or improvements to be removed as a part of this project.

## Projects that require new or additional right-of-way acquisitions and/or relocations

- ☐ Per 23 CFR 635.309, the KYTC hereby certify that all relocatees have been relocated to decent, safe, and sanitary housing or that KYTC has made available to relocatees adequate replacement housing in accordance with the provisions of the current FHWA directive(s) covering the administration of the Highway Relocation Assistance Program and that at least one of the following three conditions has been met. (Check those that apply.)
- ☐ **Condition 1.** All necessary rights-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. Fair market value has been paid or deposited with the court.
- ☐ **Condition 2.** Although all necessary rights-of-way have 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. Trial or appeal of 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. Fair market value has been paid or deposited with the court for most parcels. Fair market value for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract. (See note 1 below.)

**Note 1:** The KYTC shall re-submit a right-of-way certification form for this project prior to AWARD of all Federal-Aid construction contracts. Award must not be made until after KYTC has obtained full legal possession and fair market value for all parcels has been paid or deposited with the court and FHWA has concurred in the re-submitted right-of-way certification.

## Right-of-Way Certification Form

Revised 2/22/11

- ☐ **Condition 3.** The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. However, all remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. The KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary rights-of-way will not be fully acquired, and/or some occupants will not be relocated, and/or the fair market value 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. A full explanation and reason for this request, including identification of each such parcel and dates on which acquisitions, payments, and relocations will be completed, is attached to this certification form for FHWA concurrence. (See note 2.)

**Note 2:** The KYTC may request authorization on this basis only in unique and unusual circumstances. Proceeding to bid letting shall be the exception and never become the rule. In all cases, the KYTC shall make extraordinary efforts to expedite completion of the acquisition, payment for all affected parcels, and the relocation of all relocatees prior to AWARD of all Federal-Aid construction contracts or force account construction.

Approved: Danny Mineer  
Printed Name

Danny Mineer Right-of-Way Supervisor  
Signature

Approved: DAVID L. ORR  
Printed Name

10/6/11  
Signature KYTC, Director of ROW & Utilities

Approved: \_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature FHWA, ROW Officer (when applicable)

# Right-of-Way Certification Form

Revised 2/22/11

Date: October 6, 2011

Project Name: HSIP KY 5  
Project #: MP 0-MP6.8  
Item #: 09-908.00  
Letting Date: May 2012

County: BOYD  
Federal #: HSIP 5244 (014)

This project has 0 total number of parcels to be acquired, and 0 total number of individuals or families to be relocated, as well as 0 total number of businesses to be relocated.

- ☐ Parcels where acquired by a signed fee simple deed and fair market value has been paid
- ☐ Parcels have been acquired by IOJ through condemnation and fair market value has been deposited with the court
- ☐ Parcels have not been acquired at this time (explain below for each parcel)
- ☐ Parcels have been acquired or have a "right of entry" but fair market value has not been paid or has not been deposited with the court (explain below for each parcel)
- ☐ Relocatees have not been relocated from parcels       ,       ,       ,       ,       ,       , and        (explain below for each parcel)

Parcel #	Name/Station	Explanation for delayed acquisition, delayed relocation, or delayed payment of fair market value	Proposed date of payment or of relocation

There are 0 billboards and/or 0 cemeteries involved on this project.

There are 0 water or monitoring wells on parcels       ,       ,       ,       , and       . All have been acquired and are the responsibility of the project contractor to close/cap.

Form Effective Date: April 1, 2006  
Last Revised: February 22, 2011

**UTILITY NOTES TO BE INCLUDED IN THE PROPOSAL**  
**SPECIAL NOTES FOR UTILITY CLEARANCE**  
**IMPACT ON CONSTRUCTION**

**SUBJECT PROJECT**

**Boyd County**  
**KY 5**  
**(MP 0.00-MP6.8)**

There are no anticipated utilities involved with this project.

There are no railroads involved with this project.

**PROTECTION OF UTILITY FACILITIES**

The location of utilities provided in the contact documents has been furnished by the facility owners and/or by reviewing record drawings and may not be accurate. It will be the roadway contractor's responsibility to locate utilities before excavating by calling the various utility owners and by examining any supplemental information supplied by the cabinet. If necessary, the roadway contractor shall determine the exact location and elevation of utilities by hand digging to expose utilities before excavating in the area of a utility. The cost for repair and any other associated costs for any damage to utilities caused by the roadway contractor's operations shall be borne by the roadway contractor.

The Contractor is advised to contact the BUD one-call system; however, the Contractor should be aware that owners of underground facilities are not required to be members of the BUD one-call system. It may be necessary for the Contractor to contact the County Court Clerk to determine what utility companies have facilities in the project area. BUD NUMBER: 811 (Call Before You Dig); Telephone Number 1-800-752-6007.





**BOYD COUNTY  
KY 5**

**BRUSH & LIMB REMOVAL**

\* Cut to back of ditch or 10' from EOP, whichever is greater

\*\* Cut limbs and brush to a vertical plane, or as directed by engineer

SITE	BEGIN MP	END MP	LIN. FEET	SIDE
1	0.225	0.231	32	Right
2	0.285	0.298	69	Left
3	0.305	0.673	1943	Right
4	0.325	0.330	26	Left
5	0.635	0.658	121	Left
6	0.711	0.717	32	Left
7	0.768	1.046	1468	Right
8	0.890	0.894	21	Left
9	1.013	1.046	174	Left
10	1.071	1.348	1463	Right
11	1.118	1.348	1214	Left
12	1.450	1.466	84	Left
13	1.466	1.687	1167	Right
14	1.544	1.687	755	Left
15	1.732	1.832	528	Left
16	1.732	1.899	882	Right
17	1.933	1.986	280	Left
18	1.970	2.221	1325	Right
19	2.041	2.178	723	Left
20	2.277	2.281	21	Left
21	2.277	2.546	1420	Right
22	2.339	2.579	1267	Left
23	2.588	3.018	2270	Right
24	2.772	2.870	517	Left
25	3.074	3.215	744	Left
26	3.081	3.087	32	Right
27	3.245	3.264	100	Left
28	3.245	3.284	206	Right
29	3.328	4.114	4150	Right
30	3.426	3.429	16	Left
31	3.778	3.789	58	Left
32	4.000	4.284	1500	Left
33	4.168	4.255	459	Right
34	4.310	4.439	681	Right
35	4.340	4.513	913	Left
36	4.521	4.919	2101	Right
37	4.575	4.860	1505	Left
38	4.920	4.966	243	Left
39	5.108	5.186	412	Left
40	5.197	5.430	1230	Right
41	5.260	5.317	301	Left
42	5.411	5.460	259	Left
43	5.487	5.514	143	Right
44	5.608	5.648	211	Left
45	5.780	5.800	106	Left
46	5.780	5.940	845	Right
47	5.871	6.018	776	Left
48	6.090	6.118	148	Right
49	6.210	6.230	106	Left
50	6.340	6.375	185	Left
51	6.439	6.469	158	Left
52	6.439	6.451	63	Right
53	6.491	6.524	174	Right
54	6.538	6.582	232	Left
55	6.700	6.800	528	Left

**36,390**

**BOYD COUNTY  
KY 5**

**REMOVE TREES OR STUMPS**

<b>SITE</b>	<b>MILEPOINT</b>	<b>SIDE</b>	<b>DIAMETER</b>	<b>SPECIES</b>
1	0.426	Left	42	Walnut
2	0.593	Left	6	Cherry
3	0.645	Left	12	Box Elder
4	0.648	Left	20	Walnut
5	1.979	Right	24	Box Elder
6	2.005	Left	14	Box Elder
7	2.105	Right	30	Maple
8	2.233	Right	32	Maple
9	2.238	Right	30	Maple
10	6.524	Right	42	Oak

**Boyd County**  
**KY 5**

**Drainage Items**

M.P.	Side	Remove	Add Pipe		Other	ASPH	L&W
			Length	Size			
0.225	Cross	20' of 3'x3' box culvert	40'	48" Equiv.	2 Headwalls (5.76 CY, 440 LBS)	6	1
1.150	Left				100 tons Channel Lining		
1.233	Left				100 tons Channel Lining		
1.577	Cross	20' of 24" RCP, 2 hdwls.	40'	24"		3	1
1.714	Cross	20' of 3'x4' box culvert	40'	54" Equiv.	2 Headwalls (6.89 CY, 521 LBS)	7	1
1.860	Left		4'	18" RCP			
3.900	Left				50 tons Channel Lining		
4.116	Cross	40' of 24" RCP, 2 hdwls.	60'	36"	50 tons Channel Lining	5	1
4.442	Cross	20' of 24" RCP, 2 hdwls.	40'	36"	25 tons Channel Lining	5	1
4.912	Cross	20' of 3'x4' box culvert	40'	54" Equiv.	2 Headwalls (6.89 CY, 521 LBS)	7	1
4.978	Left				25 tons Channel Lining		
5.137	Cross	20' of 6'x8' box culvert	40'	10'6" x 5'7" Alum. Box		11	2
5.464	Left	Concrete Masonry			Widen 4' x 2' box culvert 8'		
5.522	Cross	Concrete Masonry			Widen 8' x 5' box culvert 8', both sides		
5.697	Right				50 tons Channel Lining		
5.700	Right				50 tons Channel Lining		
5.994	Cross	20' of 2'x4' box culvert	40'	42" Equiv.		6	1
6.075	Cross	20' of 2'x5' box culvert	60'	42" Equiv.		6	1
6.383	Cross	20' of 2'x4' box culvert	40'	42" Equiv.		6	1
6.692	Cross	20' of 18" RCP, 2 hdwls.	40'	24"	100 tons Channel Lining	3	1
6.800	Cross	20' of 18" RCP, 2 hdwls.	40'	24"		3	1
TOTALS:						68	13

Tons      Tons

**Boyd County KY 5 End Treatments and Guardrail**

Begin M.P.	End M.P.	Side	Remove End Treatments	Remove Rail	Install Leading End Treatment	Install Rail	Install Trailing End Treatment
1.101	1.367	Right	Type 7, Term. Sect.	1375	Type I	1412.5	Term. Sect. No. 1
1.551	1.689	Right	Type 7, Term. Sect.	700	Type 4A	737.5	Term. Sect. No. 1
1.733	1.909	Right	Term. Sect., Type 7	800	Term. Sect. No. 1	937.5	Tie to Existing
2.124	2.236	Right	2 - Type 7	450	Term. Sect. No. 1	600	Type 4A
2.125	2.183	Left	Type 7, Term. Sect.	300	Type III	312.5	Term. Sect. No. 1
2.293	2.401	Right	2 - Type 7	500	Term. Sect. No. 1	575	Term. Sect. No. 1
2.447	2.583	Right	2 - Type 7	700	Type 4A	725	Type 4A
2.527	2.610	Left	Term. Sect., Type 7	425	Type III	450	Term. Sect. No. 1
2.588	2.639	Right	Term. Sect., Type 7	200	Term. Sect. No. 1	275	Type 4A
2.907	2.956	Right	Type 4, Bridge End	250	Type 4A	262.5	Bridge Type I
2.985	3.050	Right	Bridge End, Type 4	200	Bridge Type I	350	Type 4A
3.026	3.220	Left	Type 4	1000	Tie to Existing	1025	Term. Sect. No. 1
3.656	3.698	Right	Type 7, Bridge End	200	Type III	225	Bridge Type I
3.726	3.775	Right	Bridge End, Type 7	250	Bridge Type I	262.5	Type 4A
3.930	3.962	Right	Type 7	150	Type 4A	175	Tie to Existing
4.094	4.107	Right	Type 7	50	Tie to Existing	75	Term. Sect. No. 1
4.111	4.119	Right	2 - Term. Sect.	50	Term. Sect. No. 1	50	Term. Sect. No. 1
4.125	4.143	Right	Type 7	75	Term. Sect. No. 1	100	Tie to Existing
4.235	4.245	Right	Type 7	50	Tie to Existing	62.5	Type I
4.273	4.285	Right	Type 7	50	Tie to Existing	75	Type 4A
4.350	4.368	Right	Type 7	75	Term. Sect. No. 1	100	Tie to Existing
4.403	4.414	Right	Type 7	50	Tie to Existing	62.5	Term. Sect. No. 1
4.523	4.533	Right	Type 7	50	Type I	62.5	Tie to Existing
4.782	4.858	Right	Term. Sect.		Tie to Existing	412.5	Term. Sect. No. 1

7,950

9,325

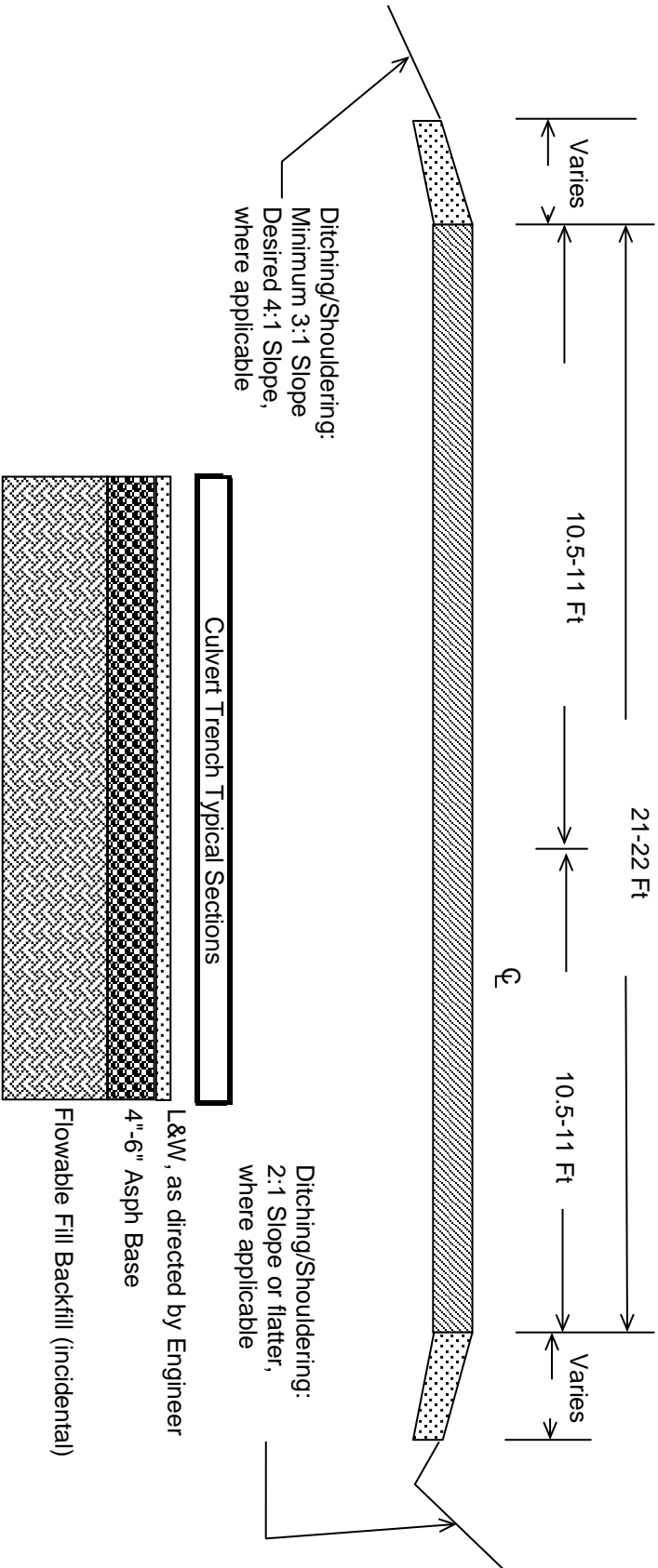
Project Totals	Removal	Installation	
	7950 ft. rail		3 - Type I 3 - Type 3 10 - Type 4A  17 - Term. Sect. No. 1 4 - Bridge End Type I 9325

\*See KYTC Standard Drawings for pay limits of End Treatments.

TYPICAL SECTION

BOYD COUNTY

FD52 010 0005 000 007



# TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

# BOYD COUNTY

**5 KY**

**M.P. 5.464 LT.**

# GENERAL NOTES

**REFERENCES:** References to the Specifications are to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, including any current Supplemental Specifications. All references to the AASHTO Standard Specifications for Highway Bridges, with Interims.

**DESIGN LOAD AND METHOD:** This culvert is designed for HS25 live load or alternate military loading, whichever produces the greater stress. The HS25 live load is derived by increasing the Standard HS20 truck and lane load by 25% to arrive at the HS25 live load (see Figure 25). The design load for concrete members is designed by the load factor method as specified in the current AASHTO Specifications.

**REINFORCEMENT:** Dimensions shown from the face of concrete to bars are for center of bars unless otherwise shown. Spacing of bars is from center to center of bars unless otherwise noted. Any reinforcing bars designated by suffix (s) in the Plans shall be epoxy coated in accordance with section 811.0 of the Standard Specifications. Any reinforcing bars designated by suffix (sl) in a Bill of Materials shall be considered a stirrup for purposes of bend diameters. Reinforcement shall be considered a stirrup for purposes of bend diameters.

**BEVELED EDGES:** All exposed edges shall be beveled  $\frac{3}{4}$ " unless otherwise shown.

**FOUNDATION PREPARATION:** Contrary to the Specifications the lump sum bid for foundation preparation shall include any rock excavation, common excavation, and any foundation and floor necessary to give a uniform foundation throughout the extensions.

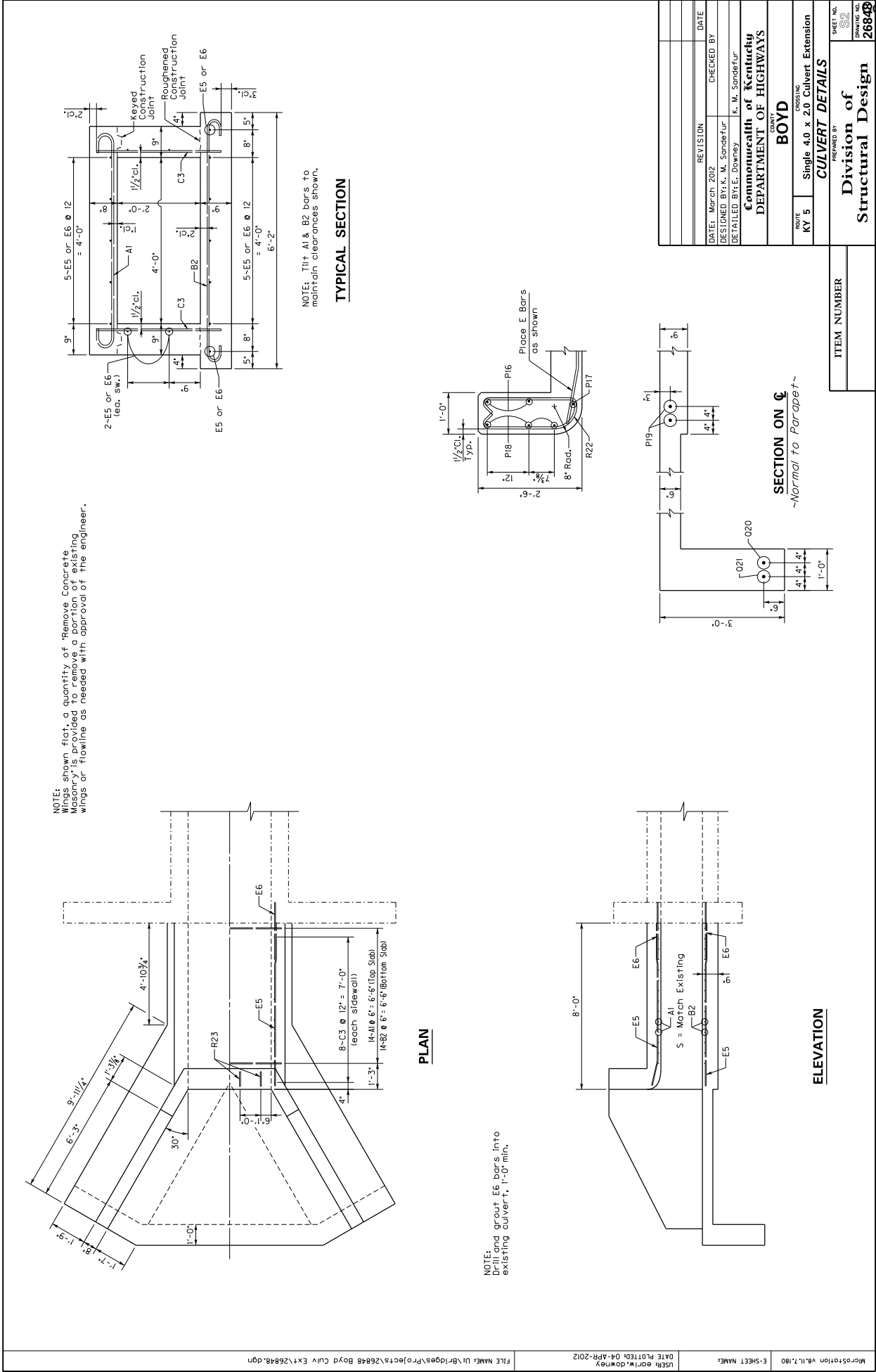
**WEIGHT OF FILL MATERIAL:** The assumed weight of fill material is 120 lbs. per cu. ft.

**CONSTRUCTION JOINTS:** Vertical construction joints shall be located in the field, except that no construction joint shall be located in the barrel within six feet of the ends of the culvert.

# ESTIMATE OF QUANTITIES

BID ITEM CODE	BID ITEM	C.Y.	U.S.	L.S.	C.Y.
08150	CONCRETE REINFORCEMENT	8.9	774	1	0.5
08200	STEEL REINFORCEMENT				
08250	CONCRETE FOUNDATION				
08300	CONCRETE MASONRY				
08400	REMOVE				
<b>CULVERT TOTALS</b>					

[illegible]



Contract ID: 124011  
Page 56 of 154



TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS

BOYD COUNTY

KY 5 OVER UNNAMED CREEK

Station MP 5.522

GENERAL NOTES

**SPECIFICATIONS:** All references to the standard Specifications are to the current edition of the Kentucky Department of Highways Standard Specifications. All references to the AASHTO are to the current edition of the AASHTO LRFD Bridge Design Specifications, with interims.

**DESIGN LOAD:** This structure is designed for HL-93 live load increased by 25%. The 25% increase is arrived by increasing the design truck or tandem and the design lane load by 25%.

**DESIGN METHOD:** All reinforced concrete members are designed by the load factor method as specified in the current AASHTO Specifications.

**MASONRY COATING:** Masonry coating will not be required for this structure.

**COMPLETION OF THE STRUCTURE:** The Contractor is required to complete the structure in accordance with the plans and specifications. Material, labor or construction operations, not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include cofferdams, shoring, bracing, dewatering, filling, or other work necessary to complete the structures, phase construction, incidental materials, labor, or anything else required to complete the structure.

**REINFORCEMENT:** Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2" unless otherwise noted. Any reinforcing bars designated by suffix (e) in the Plans shall be epoxy coated bars designated by suffix (s) in a Bill of Reinforcement shall be considered a stirrup for purposes of bend diameters.

**BEVELED EDGES:** All exposed edges shall be beveled 3/4" unless otherwise shown.

**DIMENSIONS:** Dimensions are for a normal temperature of 60 degrees Fahrenheit. Layout dimensions are horizontal measurements.

**WEIGHT OF FILL MATERIAL:** The assumed weight of fill material is 120 lbs per cubic foot.

**CONCRETE:** Class "A" concrete shall be used throughout.

**CONSTRUCTION JOINTS:** Vertical construction joints shall be located in the field, except that no construction joint shall be located in the barrel within six feet of the ends of the culvert.

**FOOTING PRESSURE:** Foundation materials for wing footings required to resist a maximum bearing pressure of 1034 PSF.

**FLOW LINE REINFORCEMENT:** Reinforcement in the 6 in thick slab shall be Size 4 bars at 18 in centers in each direction or an equivalent area of welded deformed steel fabric. The bars shall extend a minimum of 12 in into wing footings and/or the bottom slab. The cost of this reinforcement shall be included to the unit price bid for Concrete, Class "A".

ESTIMATE OF QUANTITIES

BID CODE	ITEM	QUANTITY	UNIT
8100	Class "A" Concrete	36.8	C. Y.
8150	Reinforcement	3632	Lb
8003	Foundation Preparation	1	L.S.
2403	Remove Concrete Masonry	1.0	C. Y.

CULVERTS WITH OPTIONAL FOUNDATIONS: The Contractor may construct the culvert with foundations or without foundations. This work shall be included in the lump sum bid for Foundation Preparation. If solid rock is not encountered at the design footing elevation, soil must be excavated and backfilled with "Roadway Fill Granular Embankment" meeting the requirements of Special Provision No. 69, current edition. For compressible material, rock within 2' of the design flow line must be excavated and backfilled with soil to the base of footing elevation. Payment for this work shall be included in the lump sum bid for Foundation Preparation.

ITEM NUMBER  
9-0000

LETTING DATE

CONSTRUCTION PROJECT NO.

USER NAME: eor\w.donney FILE NAME: U:\Bridges\Project\826849 Boyd Culv Ex\126849.dgn

DATE: 04-APR-2012

SHEET NAME:

TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS

BOYD COUNTY

KY 5 OVER UNNAMED CREEK

Station MP 5.522

GENERAL NOTES

**SPECIFICATIONS:** All references to the standard Specifications are to the current edition of the Kentucky Department of Highways Standard Specifications. All references to the AASHTO are to the current edition of the AASHTO LRFD Bridge Design Specifications, with interims.

**DESIGN LOAD:** This structure is designed for HL-93 live load increased by 25%. The 25% increase is arrived by increasing the design truck or tandem and the design lane load by 25%.

**DESIGN METHOD:** All reinforced concrete members are designed by the load factor method as specified in the current AASHTO Specifications.

**MASONRY COATING:** Masonry coating will not be required for this structure.

**COMPLETION OF THE STRUCTURE:** The Contractor is required to complete the structure in accordance with the plans and specifications. Material, labor or construction operations, not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include cofferdams, shoring, bracing, dewatering, filling, or other work necessary to complete the structures, phase construction, incidental materials, labor, or anything else required to complete the structure.

**REINFORCEMENT:** Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2" unless otherwise noted. Any reinforcing bars designated by suffix (e) in the Plans shall be epoxy coated. Bars designated by suffix (s) in a Bill of Reinforcement shall be considered a stirrup for purposes of bend diameters.

**BEVELED EDGES:** All exposed edges shall be beveled 3/4" unless otherwise shown.

**DIMENSIONS:** Dimensions are for a normal temperature of 60 degrees Fahrenheit. Layout dimensions are horizontal measurements.

**WEIGHT OF FILL MATERIAL:** The assumed weight of fill material is 120 lbs per cubic foot.

**CONCRETE:** Class "A" concrete shall be used throughout.

**CONSTRUCTION JOINTS:** Vertical construction joints shall be located in the field, except that no construction joint shall be located in the barrel within six feet of the ends of the culvert.

**FOOTING PRESSURE:** Foundation materials for wing footings required to resist a maximum bearing pressure of 1034 PSF.

**FLOW LINE REINFORCEMENT:** Reinforcement in the 6 in thick slab shall be Size 4 bars at 18 in centers in each direction or an equivalent area of welded deformed steel fabric. The bars shall extend a minimum of 12 in into wing footings and/or the bottom slab. The cost of this reinforcement shall be included to the unit price bid for Concrete, Class "A".

ESTIMATE OF QUANTITIES

BID CODE	ITEM	QUANTITY	UNIT
8100	Class "A" Concrete	36.8	C. Y.
8150	Reinforcement	3632	Lb
8003	Foundation Preparation	1	L. S.
2403	Remove Concrete Masonry	1.0	C. Y.

CULVERTS WITH OPTIONAL FOUNDATIONS: The Contractor may construct the culvert with foundations or without foundations. This work shall be included in the lump sum bid for Foundation Preparation. If solid rock is not encountered at the design footing elevation, soil must be excavated and backfilled with "Roadway Fill Granular Embankment" meeting the requirements of Special Provision No. 69, current edition. For compressible material, rock within 2' of the design flow line must be excavated and backfilled with soil to the base of footing elevation. Payment for this work shall be included in the lump sum bid for Foundation Preparation.

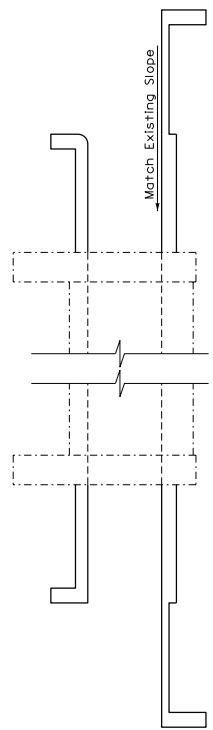
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DATE: 04-APR-2012

USER NAME: eor\w.donney

SHEET NUMBER: 9-0000

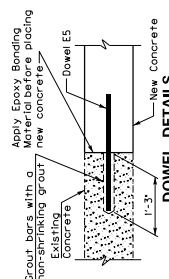
ITEM NUMBER
9-0000



SECTION ON ℄  
Single 8'-0" x 5'-0" R.C.B.C. Extensions  
8'-0" Inlet End and 8'-0" Outlet End  
0.0000° Skew ~ KYHL-93 Loading ~ 0.50 Fill Slope  
Optional Foundation



- A. 13-A1 @ 6" = 6'-0" (Top Slab)  
 B. 13-B2 @ 6" = 6'-0" (Bottom Slab)  
 C. 8-C3 @ 1'-0" = 7'-0" (Each Sidewall)  
 D. 8-R39 @ 1'-0" = 7'-0"  
 E. 8-R40 @ 1'-0" = 7'-0"

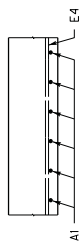


**DOWEL DETAILS**

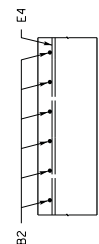


DATE:		MAR. 2012	REVISION	DATE
DESIGNED BY:		K. M. Sonderfur	CHECKED BY	
DETAILED BY:		Computer	K. M. Sonderfur	
<b>Commonwealth of Kentucky</b> <b>DEPARTMENT OF HIGHWAYS</b>				
COUNTY				
<b>BOYD</b>				
ROUTE			CROSSING	
KY 5			UNNAMED CREEK	
<b>BARREL</b> PREPARED BY				
SHEET NO. <b>33</b>			DRAWING NO. <b>26949</b>	
<b>Division of</b> <b>Structural Design</b>				

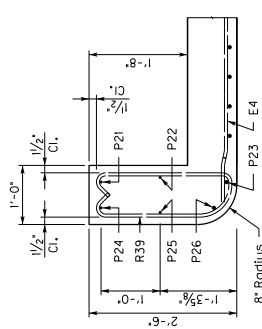
ITEM NUMBER
9-0000



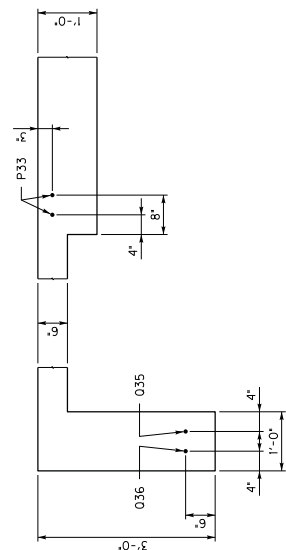
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SCALE = 1:12  
(Perpendicular to Parapet)



SECTION ON C  
SCALE = 1:12



LEFT PARAPET  
SCALE = 1:12  
(Perpendicular to Parapet)

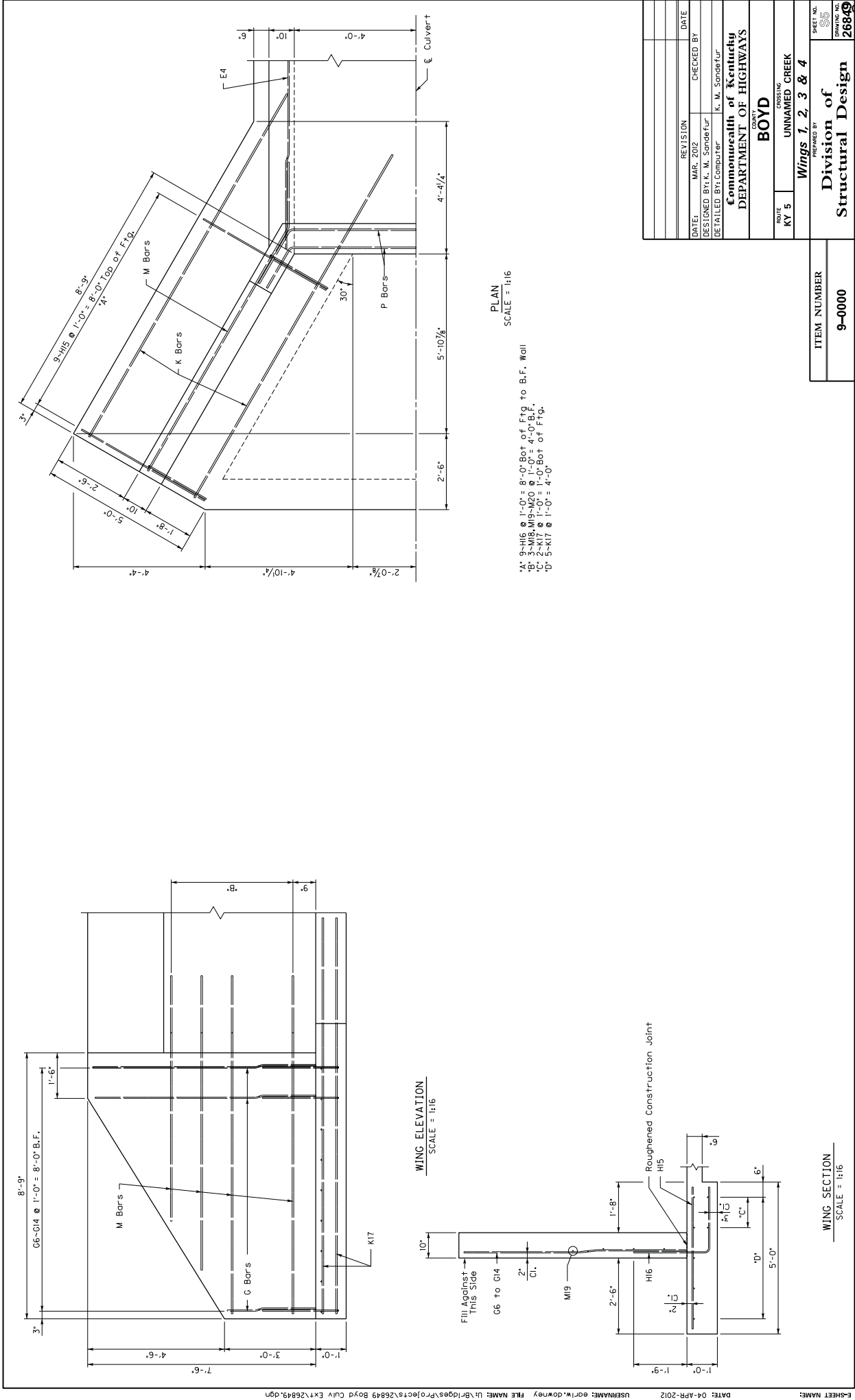


LEFT END  
SCALE = 1:12  
(Perpendicular to Apron)

RIGHT END  
SCALE = 1:12  
(Perpendicular to Apron)

DATE:		MAR. 2012		REVISION							
DESIGNED BY:		K. M. Sonderfur		CHECKED BY							
DETAILED BY:		Computer		K. M. Sonderfur							
<p align="center"><b>Commonwealth of Kentucky</b>  <b>DEPARTMENT OF HIGHWAYS</b></p>											
<p align="center"><b>COUNTY</b>  <b>BOYD</b></p>											
ROUTE		UNNAMED CREEK									
KY 5		<p align="center"><b><i>BARREL</i></b></p>									
<p align="center">PREPARED BY</p>						<p align="center">SHEET NO.  <b>54</b></p>					
<p align="center"><b>Division of</b>  <b>Structural Design</b></p>						<p align="center">DRAWING NO.  <b>268949</b></p>					

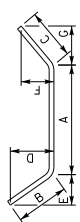
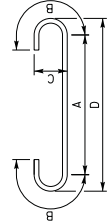
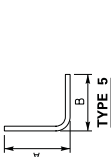
ITEM NUMBER	9-0000
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DATE:	DESIGNED BY: K. M. Sonderfur	REVISION	CHECKED BY	DATE	
	DETAILED BY: Computer		K. M. Sonderfur		
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS					
COUNTY BOYD					
ROUTE KY 5	CROSSING UNNAMED CREEK				
Wings 1, 2, 3 & 4					
PREPARED BY					
Division of Structural Design					
SHEET NO. DRAWING NO. 26849					

BILL OF RE INFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A/E	B/F	C/G	D/H
A1	I	26	7	11- 1	Top Slab	8- 9	1- 2	0- 7	9- 4
B2	Str.	56	4	12- 1	Bottom Slab	9- 9	1- 2	0- 7	10- 4
C3	Str.	56	4	7- 5	Dowels				
E4	Str.	76	5	7- 8	Top & Bottom Slabs & Sidelwalks				
E5	Str.	52	5	2- 6	Dowels				
G6	Str.	4	4	2-11	B.F. Wings 1, 2, 3 & 4				
G7	Str.	4	4	3- 6	B.F. Wings 1, 2, 3 & 4				
G8	Str.	4	4	4- 2	B.F. Wings 1, 2, 3 & 4				
G9	Str.	4	4	4- 9	B.F. Wings 1, 2, 3 & 4				
G10	Str.	4	4	5- 5	B.F. Wings 1, 2, 3 & 4				
G11	Str.	4	4	5- 5	B.F. Wings 1, 2, 3 & 4				
G12	Str.	4	4	6- 0	B.F. Wings 1, 2, 3 & 4				
G13	Str.	4	4	7- 3	B.F. Wings 1, 2, 3 & 4				
G14	Str.	4	4	7- 4	B.F. Wings 1, 2, 3 & 4				
H15	Str.	36	4	4- 8	Top Fiq. Wings 1, 2, 3 & 4				
H16	5	36	4	4- 7	Bot Fiq. Wings 1, 2, 3 & 4	2- 6	2- 2		
K17	Str.	28	5	13- 0	Fiq. Wings 1, 2, 3 & 4	9- 2 1/2	2- 2	1- 1	1-10 1/2
M18	8	12	5	11- 5	B.F. Wings 1, 2, 3 & 4	7- 9 1/2	2- 2	1- 1	1-10 1/2
M19	8	4	5	9-11	B.F. Wings 1, 2, 3 & 4	7- 9 1/2	2- 2	1- 1	1-10 1/2
N20	8	4	5	9-11	B.F. Wings 1, 2, 3 & 4	7- 9 1/2	2- 2	1- 1	1-10 1/2
P21	7	1	5	12- 5	B.F. Parapet Lt. End	8- 5 1/2	1- 11 1/2	1- 5 1/2	1- 9 1/2
P22	7	1	5	12- 6	B.F. Parapet Lt. End	8- 5 1/2	2- 0 1/2	2- 0 1/2	1- 9 1/2
P23	7	1	7	12- 4	B.F. Parapet Lt. End	1- 0 1/4	1- 9 1/4	1- 11 1/4	1- 8 1/4
P24	7	1	5	11- 5	F.F. Parapet Lt. End	0- 11 1/4	1- 8 1/4	0- 11 1/4	1- 5 1/2
P25	7	1	5	11- 4	F.F. Parapet Lt. End	0- 10 1/4	1- 5 1/2	0- 10 1/4	1- 5 1/2
P26	7	1	7	11- 5	F.F. Parapet Lt. End	0- 9 1/4	1- 4 1/2	0- 9 1/4	1- 4 1/2
P27	7	1	5	12- 5	B.F. Parapet Rt. End	8- 2 1/4	1- 5 1/2	0- 10 1/4	1- 5 1/2
P28	7	1	5	12- 6	B.F. Parapet Rt. End	0- 11 1/4	1- 8 1/4	0- 11 1/4	1- 8 1/4
P29	7	1	7	12- 4	B.F. Parapet Rt. End	1- 0 1/4	1- 9 1/4	1- 0 1/4	1- 0 1/4
P30	7	1	5	11- 5	F.F. Parapet Rt. End	8- 1 1/4	1- 8 1/4	1- 8 1/4	1- 8 1/4
P31	7	1	5	11- 4	F.F. Parapet Rt. End	8- 2 1/4	1- 7	1- 7	1- 4 1/2
P32	7	1	7	11- 5	F.F. Parapet Rt. End	0- 9 1/4	1- 4 1/2	0- 9 1/4	1- 4 1/2
P33	Str.	2	7	10- 4	Bottom Slab Lt. End	8- 2 1/4	1- 8 1/4	1- 8 1/4	1- 5 1/2
P34	Str.	2	7	10- 4	Bottom Slab Rt. End	0- 10 1/4	1- 5 1/2	0- 10 1/4	1- 5 1/2
O35	7	1	7	22- 8	Apron Lt. End	13- 6 1/2	4- 7	4- 7	2- 3 1/2
O36	7	1	7	23- 0	Apron Lt. End	13- 11 1/2	2- 3 1/2	3- 11 1/2	2- 4
O37	7	1	7	22- 8	Apron Rt. End	4- 0 1/2	2- 4	4- 8	2- 4
O38	7	1	7	23- 0	Apron Rt. End	13- 6 1/4	4- 7	4- 7	2- 3 1/2
R39	11s	8	5	5-11	Parapet Wall (Left End)	13- 8 1/2	4- 8	3- 11 1/2	2- 4
R40	11s	8	5	5-11	Parapet Wall (Right End)	4- 0 1/2	2- 4	4- 8	2- 4



DATE: MAR. 2012		REVISION	CHECKED BY
DESIGNED BY: K. M. Sonderfur		K. M. Sonderfur	
DETAILED BY: Computer			
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
COUNTY BOYD			
ROUTE KY 5		CROSSING UNNAMED CREEK	
ITEM NUMBER 9-0000		PREPARED BY Division of Structural Design	
PROJECT NO. 26849		SHEET NO. 62	

GUARDRAIL DELIVERY VERIFICATION SHEET

CONTRACT ID \_\_\_\_\_

DESCRIPTION	UNIT	QUANTITIES	
		FIELD VERIFIED	DELIVERED
GUARDRAIL STEEL W BEAM	LF		
GUARDRAIL STEEL THRIE BEAM	LF		
GUARDRAIL THRIE BEAM-W BEAM CONNECTOR	EA		
GUARDRAIL TERMINAL SECTION No. 1	EA		
GUARDRAIL TERMINAL SECTION No. 2	EA		
GUARDRAIL TERMINAL SECTION No. 3	EA		
GUARDRAIL THRIE BEAM TERMINAL SECTION	EA		
CRASH CUSHION TYPE VI	EA		
CRASH CUSHION TYPE VII	EA		
CRASH CUSHION TYPE IX/IX-A	EA		
GUARDRAIL END TREATMENT TYPE 1	EA		
GUARDRAIL END TREATMENT TYPE 2A	EA		
GUARDRAIL END TREATMENT TYPE 3	EA		
GUARDRAIL END TREATMENT TYPE 4A	EA		
GUARDRAIL END TREATMENT TYPE 7	EA		
GUARDRAIL CONNECTOR TO BRIDGE END TYPE A/A-1	EA		
GUARDRAIL CONNECTOR TO BRIDGE END TYPE E/E-1	EA		
GUARDRAIL CONNECTOR TO BRIDGE END TYPE C	EA		
GUARDRAIL CONNECTOR TO BRIDGE END TYPE D	EA		
GUARDRAIL CONNECTOR TO CONC MED PIER	EA		
GUARDRAIL CONNECTOR TO CONC SHLDR PIER	EA		
GUARDRAIL POSTS-STEEL	EA		
GUARDRAIL OFFSET BLOCK TYPE 4	EA		
GUARDRAIL OFFSET BLOCK STEEL	EA		
GUARDRAIL OFFSET BLOCK THRIE BEAM	EA		
GUARDRAIL BACK-UP PLATE W BEAM	EA		
GUARDRAIL BACK-UP PLATE THRIE BEAM	EA		
GUARDRAIL NUTS, BOLTS, & WASHERS	BAG		

- NOTES:
- 1. Dispose of concrete foundations and timber posts off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department.
  - 2. Salvage and deliver removed guardrail system components, other than concrete foundations and timber posts, according to Section 719.03.07.
  - 3. Prior to removing the materials from the project site, obtain the Contractor's and Engineer's representative's signatures.
  - 4. Upon delivery, obtain the Bailey Bridge Lot's representative's signature and submit this completed form to the Engineer.
  - 5. The Department will not measure removed guardrail components for payment without completed delivery verification sheet(s).

	PRINTED NAME	SIGNATURE	DATE
RESIDENT ENGINEER'S REPRESENTATIVE	_____	_____	_____
CONTRACTOR'S REPRESENTATIVE	_____	_____	_____
BAILEY BRIDGE LOT'S REPRESENTATIVE	_____	_____	_____

**PART II**

**SPECIFICATIONS AND STANDARD DRAWINGS**



### **SPECIFICATIONS REFERENCE**

Any reference in the plans or proposal to the *Standard Specifications for Road and Bridge Construction, Edition of 2004*, and *Standard Drawings, Edition of 2000* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2008* and *Standard Drawings, Edition of 2003 with the 2008 Revision*.

**Supplemental Specifications to The Standard Specifications  
for Road and Bridge Construction, 2008 Edition**  
(Effective with the July 15, 2011 Letting)

<b>SUBSECTION: REVISION:</b>	101.02 Abbreviations. Insert the following abbreviation and text into the section:  KEPSC      Kentucky Erosion Prevention and Sediment Control
<b>SUBSECTION: REVISION:</b>	101.03 Definitions. Replace the definition for Specifications – <i>Special Provisions</i> with the following:  Additions and revisions to the Standard and Supplemental Specifications covering conditions peculiar to an individual project.
<b>SUBSECTION: REVISION:</b>	102.03 Contents of the Bid Proposal Form. Replace the first sentence of the first paragraph with the following: The Bid Proposal form will be available on the Department internet website ( <a href="http://transportation.ky.gov/contract/">http://transportation.ky.gov/contract/</a> ).  Delete the second paragraph.  Delete the last paragraph.
<b>SUBSECTION: REVISION:</b>	102.04 Issuance of Bid Proposal Form. Replace Heading with the following:  102.04 Bidder Registration.  Replace the first sentence of the first paragraph with the following:  The Department reserves the right to disqualify or refuse to place a bidder on the eligible bidder's list for a project for any of the following reasons:  Replace the last sentence of the subsection with the following:  The Department will resume placing the bidder on the eligible bidder's list for projects after the bidder improves his operations to the satisfaction of the State Highway Engineer.
<b>SUBSECTION: REVISION:</b>	102.06 Examination of Plans, Specifications, Special Provisions, Special Notes, and Site of Work. Replace the first paragraph with the following:  Examine the site of the proposed work, the Bid Proposal, Plans, specifications, contract forms, and bulletins and addendums posted to the Department's website and the Bid Express Bidding Service Website before submitting the Bid Proposal. The Department considers the submission of a Bid Proposal prima facie evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the Contract.
<b>SUBSECTION: REVISION:</b>	102.07.01 General. Replace the first sentence with the following:  Submit the Bid Proposal on forms furnished on the Bid Express Bidding Service website ( <a href="http://www.bidx.com">www.bidx.com</a> ).  Replace the first sentence of the third paragraph with the following:  Bid proposals submitted shall use an eligible Digital ID issued by Bid Express.

**Supplemental Specifications to The Standard Specifications  
for Road and Bridge Construction, 2008 Edition**  
(Effective with the July 15, 2011 Letting)

<b>SUBSECTION: REVISION:</b>	<p>102.07.02 Computer Bidding. Replace the first paragraph with the following:</p> <p>Subsequent to registering for a specific project, use the Department's Expedite Bidding Program on the internet website of the Department of Highways, Division of Construction Procurement (<a href="http://transportation.ky.gov/contract/">http://transportation.ky.gov/contract/</a>). Download the bid file from the Bid Express Bidding Service Website to prepare a Bid Proposal for submission to the Department. Submit Bid Proposal electronically through Bid Express Bidding Service.</p> <p>Delete the second and third paragraph.</p>
<b>SUBSECTION: REVISION:</b>	<p>102.08 Irregular Bid Proposals. Delete the following from the first paragraph: 4) fails to submit a disk created from the Highway Bid Program.</p> <p>Replace the second paragraph with the following: The Department will consider Bid Proposals irregular and may reject them for the following reasons:</p> <ol style="list-style-type: none"><li>1) when there are unauthorized additions, conditional or alternate bids, or irregularities of any kind which may tend to make the Bid Proposal incomplete, indefinite, or ambiguous as to its meaning; or</li><li>2) when the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a Contract pursuant to an award; or</li><li>3) any failure to comply with the provisions of Subsection 102.07; or</li><li>4) Bid Proposals in which the Department determines that the prices are unbalanced; or when the sum of the total amount of the Bid Proposal under consideration exceeds the bidder's Current Capacity Rating.</li></ol>
<b>SUBSECTION: REVISION:</b>	<p>102.09 Bid Proposal Guaranty. Insert the following after the first sentence:</p> <p>Bid Proposals must have a bid proposal guaranty in the amount indicated in the bid proposal form accompany the submittal. A guaranty in the form of a paper bid bond, cashier's check, or certified check in an amount no less than the amount indicated on the submitted electronic bid is required when the electronic bid bond was not utilized with the Bid Express Bidding Service. Paper bid bonds must be delivered to the Division of Construction Procurement prior to the time of the letting.</p>
<b>SUBSECTION: REVISION:</b>	<p>102.10 Delivery of Bid Proposals. Replace paragraph with the following:</p> <p>Submit all Bid Proposals prior to the time specified in the Notice to Contractors. All bids shall be submitted electronically using Bid Express Bidding Services. Electronically submitted bids must be done in accordance with the requirements of the Bid Express Bidding Service.</p>
<b>SUBSECTION: REVISION:</b>	<p>102.11 Withdrawal or Revision of Bid Proposals. Replace the paragraph with the following:</p> <p>Bid Proposals can be withdrawn in accordance the requirements of the Bid Express Bidding Service prior to the time of the Letting.</p>

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<b>SUBSECTION: REVISION:</b>	<p>102.13 Public Opening of Bid Proposals. Replace Heading with the following: 102.13 Public Announcement of Bid Proposals.</p> <p>Replace the paragraph with the following: The Department will publicly announce all Bid Proposals at the time indicated in the Notice to Contractors.</p>
<b>SUBSECTION: REVISION:</b>	<p>103.02 Award of Contract. Replace the first sentence of the third paragraph with the following:</p> <p>The Department will normally award the Contract within 10 working days after the date of receiving Bid Proposals unless the Department deems it best to hold the Bid Proposals of any or all bidders for a period not to exceed 60 calendar days for final disposition of award.</p>
<b>SUBSECTION: REVISION:</b>	<p>105.02 Plans and Working Drawings. Insert the following after the fourth paragraph:</p> <p>Submit electrical shop drawings, design data, and descriptive literature for materials in electronic format to the Division of Traffic Operations for approval. Drawings and literature shall be submitted for lighting and signal components. Notify the Engineer when submitting information to the Division of Traffic Operations. Do not begin work until shop drawings are approved.</p> <p>Submit shop drawings for traffic counting equipment and materials in electronic format to the Engineer or the Division of Planning. Notify the Engineer when submitting information directly to the Division of Planning. Do not begin work until shop drawings are reviewed and approved.</p>
<b>SUBSECTION: REVISION:</b>	<p>105.03 Record Plans. Replace the section with the following:</p> <p>Record Plans are those reproductions of the original Plans on which the accepted Bid Proposal was based and, and signed by a duly authorized representative of the Department. The Department will make these plans available for inspection in the Central Office at least 24 hours prior to the time of opening bids and up to the time of letting of a project or projects. The quantities appearing on the Record Plans are the same as those on which Bid Proposals are received. The Department will use these Record Plans as the controlling plans in the prosecution of the Contract. The Department will not make any changes on Record Plans subsequent to their issue unless done so by an approved contract modification. The Department will make 2 sets of Record Plans for each project, and will maintain one on file in the Central Office and one on file in the District Office. The Department will furnish the Contractor with the following: 1 full size, 2 half size and an electronic file copy of the Record Plans at the Pre-Construction conference.</p>

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<b>SUBSECTION: REVISION:</b>	<p>105.12 Final Inspection and Acceptance of Work.</p> <p>Insert the following paragraphs after the first paragraph:</p> <p>Notify the Engineer when all electrical items are complete. A notice of the electrical work completion shall be made in writing to the Contractor. Electrical items will be inspected when the electrical work is complete and are not subject to waiting until the project as a whole has been completed. The Engineer will notify the Division of Traffic Operations within 3 days that all electrical items are complete and ready for a final inspection. A final inspection will be completed within 90 days after the Engineer notifies the Division of Traffic Operations of the electrical work completion.</p> <p>Energize all electrical items prior to notifying the Engineer that all electrical items are complete. Electrical items must remain operational until the Division of Traffic Operations has inspected and accepted the electrical portion of the project. Payment for the electrical service is the responsibility of the Contractor from the time the electrical items are energized until the Division of Traffic Operations has accepted the work.</p> <p>Complete all corrective work within 90 calendar days of receiving the original electrical inspection report. Notify the Engineer when all corrective work is complete. The Engineer will notify the Division of Traffic Operations that the corrective work has been completed and the project is ready for a follow-up inspection. Upon re-inspection, if additional corrective work is required, complete within the same 90 calendar day allowance. The Department will not include time between completion of the corrective work and the follow up electrical inspection(s). The 90 calendar day allowance is cumulative regardless of the number of follow-up electrical inspections required.</p> <p>The Department will assume responsibility for the electrical service on a project once the Division of Traffic Operations gives final acceptance of the electrical items on the project. The Department will also assume routine maintenance of those items. Any damage done to accepted electrical work items by other Contractors shall be the responsibility of the Prime Contractor. The Department will not be responsible for repairing damage done by other contractors during the construction of the remaining project.</p> <p>Failure to complete the electrical corrective work within the 90 calendar day allowance will result in penalties assessed to the project. Penalties will be assessed at ½ the rate of liquidated damages established for the contract.</p> <p>Replace the following in the second sentence of the second paragraph:</p> <p>Replace Section 213 with Section 212.</p> <p>Delete the fifth paragraph from the section.</p>
<b>SUBSECTION: REVISION:</b>	<p>105.13 Claim Resolution Process.</p> <p>Replace the last sentence of the 3. Bullet with the following:</p> <p>If the Contractor did not submit an as-bid schedule at the Pre-Construction Meeting or a written narrative in accordance with Subsection 108.02, the Cabinet will not consider the claim for delay.</p> <p>Delete the last paragraph from the section.</p>

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<b>SUBSECTION: REVISION:</b>	<p>106.04 Buy America Requirement. Replace the section with the following:</p> <p><b>106.04 Buy America Requirement.</b> Follow the “Buy America” provisions as required by Title 23 Code of Federal Regulations § 635.410. Except as expressly provided herein all manufacturing processes of steel or iron materials including but not limited to structural steel, guardrail materials, corrugated steel, culvert pipe, structural plate, prestressing strands, and steel reinforcing bars shall occur in the United States of America, including the application of:</p> <ul style="list-style-type: none"><li>• Coating,</li><li>• Galvanizing,</li><li>• Painting, and</li><li>• Other coating that protects or enhances the value of steel or iron products.</li></ul> <p>The following are exempt, unless processed or refined to include substantial amounts of steel or iron material, and may be used regardless of source in the domestic manufacturing process for steel or iron material:</p> <ul style="list-style-type: none"><li>• Pig iron,</li><li>• Processed, pelletized, and reduced iron ore material, or</li><li>• Processed alloys.</li></ul> <p>The Contractor shall submit a certification stating that all manufacturing processes involved with the production of steel or iron materials occurred in the United States.</p> <p>Produce, mill, fabricate, and manufacture in the United States of America all aluminum components of bridges, tunnels, and large sign support systems, for which either shop fabrication, shop inspection, or certified mill test reports are required as the basis of acceptance by the Department.</p> <p>Use foreign materials only under the following conditions:</p> <ol style="list-style-type: none"><li>1) When the materials are not permanently incorporated into the project; or</li><li>2) When the delivered cost of such materials used does not exceed 0.1 percent of the total Contract amount or \$2,500.00, whichever is greater.</li></ol> <p>The Contractor shall submit to the Engineer the origin and value of any foreign material used.</p>
<b>SUBSECTION: REVISION:</b>	<p>106.10 Field Welder Certification Requirements. Insert the following sentence before the first sentence of the first paragraph:</p> <p>All field welding must be performed by a certified welder unless otherwise noted.</p>
<b>SUBSECTION: REVISION:</b>	<p>108.02 Progress Schedule. Insert the following prior to the first paragraph:</p> <p>Specification 108.02 applies to all Cabinet projects except the following project types:</p> <ul style="list-style-type: none"><li>• Right of Way Mowing and/or Litter Removal</li><li>• Waterborne Paint Striping</li><li>• Projects that contain Special Provision 82</li><li>• Projects that contain the Special Note for CPM Scheduling</li></ul> <p>Insert the following paragraph after paragraph two:</p> <p>Working without the submittal of a Written Narrative is violation of this specification and additionally voids the Contractor’s right to delay claims.</p> <p>Insert the following paragraph after paragraph six:</p> <p>The submittal of bar chart or Critical Path Method schedule does not relieve the Contractor’s requirement to submit a Written Narrative schedule.</p>

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	<p>Insert the following at the beginning of the first paragraph of A) Written Narrative.:</p> <p>Submit the Written Narrative Schedule using form TC 63-50 available at the Division of Construction's website (<a href="http://www.transportation.ky.gov/construction/ResCenter/ResCenter.htm">http://www.transportation.ky.gov/construction/ResCenter/ResCenter.htm</a>).</p> <p>Replace Part A) Written Narrative 1. And 2. with the following:</p> <ol style="list-style-type: none"> <li>1. Provide a description that includes how the Contractor will sequence and stage the work, how the Contractor plans to maintain and control traffic being specific and detailed, and what equipment and crew sizes are planned to execute the work.</li> <li>2. Provide a list of project milestones including, if applicable, winter shut-downs, holidays, or special events. The Contractor shall describe how these milestones and other dates effect the prosecution of the work. Also, include start date and completion date milestones for the contract, each project if the contract entails multiple projects, each phase of work, site of work, or segment of work as divided in the project plans, proposal, or as subdivided by the Contractor.</li> </ol>
<b>SUBSECTION: REVISION:</b>	<p>109.07.01 Liquid Asphalt.</p> <p>Add the following to the Adjustable Contract Items:</p> <ul style="list-style-type: none"> <li>• Stone Matrix Asphalt for Base</li> <li>• Stone Matrix Asphalt for Surface</li> </ul>
<b>SUBSECTION: REVISION:</b>	<p>110.01 Mobilization.</p> <p>Replace paragraph three with the following:</p> <p>Do not bid an amount for Mobilization that exceeds 5 percent of the sum of the total amounts bid for all items in the Bid Proposal, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives. The Department will automatically adjust any Bid Proposals that are in excess of this amount down to 5 percent to compare Bid Proposals and award the Contract. The Department will award a Contract for the actual amount bid when the amount bid for Mobilization is less than 5 percent, or the Department will award the Contract for the adjusted bid amount of 5 percent when the amount bid for Mobilization is greater than 5 percent. If any errors in unit bid prices for other Contract items in a Contractor's Bid Proposal are discovered after bid opening and such errors reduce the total amount bid for all other items, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives, so that the percent bid for Mobilization is larger than 5 percent, the Department will adjust the amount bid for Mobilization to 5 percent of the sum of the corrected total bid amounts.</p>
<b>SUBSECTION: REVISION:</b>	<p>110.02 Demobilization.</p> <p>Replace the third paragraph with the following:</p> <p>Bid an amount for Demobilization that is a minimum of \$1,000 or 1.5 percent of the sum of the total amounts bid for all other items in the Bid Proposal, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives. The Department will automatically adjust any Bid Proposal that is less than this amount up to \$1,000 or 1.5 percent to compare Bid Proposals and award the Contract. The Department will award a Contract for the actual amount bid when the amount bid for demobilization exceeds 1.5 percent, or the Department will award the Contract for the adjusted bid amount when the amount bid for demobilization is less than the minimum of \$1,000 or less than 1.5 percent of the sum of the total amounts bid for all other items in the Bid Proposal, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives.</p>
<b>SUBSECTION: REVISION:</b>	<p>110.04 Payment.</p> <p>Insert the following paragraph following the demobilization payment schedule (4<sup>th</sup> paragraph):</p> <p>The Department will withhold an amount equal to \$1,000 for demobilization, regardless of the schedule listed above. The \$1,000 withheld for demobilization will be paid when the final estimate is paid.</p>



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<b>SUBSECTION: REVISION:</b>	<p>112.03.01 General Traffic Control. Replace paragraph three with the following:</p> <p>All flaggers shall be trained in current MUTCD flagging procedures. Proof of training must be available for review at the Department's request. Flagging credentials must be current within the last 5 years.</p>
<b>SUBSECTION: PART: REVISION:</b>	<p>112.03.11 Temporary Pavement Markings. B) Placement and Removal of Temporary Striping. Replace the 2<sup>nd</sup> sentence of the first paragraph with the following:</p> <p>On interstates and parkways, and other roadways approved by the State Highway Engineer, install pavement striping that is 6 inches in width.</p>
<b>SUBSECTION: REVISION:</b>	<p>112.03.12 Project Traffic Coordinator (PTC). Add the following at the end of the subsection:</p> <p>After October 1, 2008 the Department will require the PTC to have successfully completed the applicable qualification courses. Personnel that have not successfully completed the applicable courses by that date will not be considered qualified. Prior to October 1, 2008, conform to Subsection 108.06 A) and ensure the designated PTC has sufficient skill and experience to properly perform the task.</p>
<b>SUBSECTION: REVISION:</b>	<p>112.03.15 Non-Compliance of Maintain and Control of Traffic. Add the following section:</p> <p><b>112.03.15 Non-Compliance of Maintain and Control of Traffic.</b> It is the Contractor's responsibility to conform to the traffic control requirements in the TCP, Proposal, plan sheets, specifications, and the Manual on Uniform Traffic Control Devices.</p> <p>Unless specified elsewhere in the contract, a penalty will be assessed in the event of non-compliance with Maintain and Control of Traffic requirements. These penalties will be assessed when the Contractor fails to correct a situation or condition of non-compliance with the contract traffic control requirements after being notified by the Engineer. The calculation of accrued penalties for non-compliance will be based upon the date/time of notification by the Engineer.</p> <p>The amount of the penalty assessed for non-compliance will be determined based upon the work zone duration, as defined by the MUTCD, and will be the greatest of the different calculation methods indicated below:</p> <p style="padding-left: 40px;">A) Long-term stationary work that occupies a location more than 3 days.</p> <p style="padding-left: 40px;">Correct the non-compliant issue within 24 hours from initial notification by the Engineer. If the issue is not corrected within 24 hours from the initial notification, a penalty for non-compliance will be assessed on a daily basis beginning from the initial notification of non-compliance. The Contractor will be assessed a \$1,000 daily penalty or the amount equal to the contract liquidated damages in Section 108.09, whichever of the 2 is greater. The penalty for non-compliance will escalate as follows for continued non-compliance after the initial notification.</p> <p style="padding-left: 40px;">3 Days after Notification \$1,500 daily penalty or 1.5 times the contract liquidated damages daily charge rate in Section 108.09, whichever is greater.</p> <p style="padding-left: 40px;">7 Days after Notification \$2,000 daily penalty or double the contract liquidated damages daily charge rate in Section 108.09, whichever is greater.</p>



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	<p>B) Intermediate-term stationary work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than 1 hour.</p> <p>Correct the non-compliant issue within 4 hours from initial notification by the Engineer. If the issue is not corrected within 4 hours from notification, a penalty for non-compliance will be assessed on an hourly basis beginning from the initial notification of non-compliance. The penalty for non-compliance will be assessed at \$200 per hour.</p> <p>C) Short-term stationary is work that occupies a location for more than 1 hour within a single 24-hour period.</p> <p>Correct the non-compliant issue within 1 hour from initial notification by the Engineer. If the issue is not corrected within 1 hour from notification, a penalty for non-compliance will be assessed on an hourly basis beginning from the initial notification of non-compliance. The penalty for non-compliance will be assessed at \$200 per hour.</p> <p>If the Contractor remains in violation of the Maintain and Control of Traffic requirements, or if the Department determines it to be in the public’s interest, work will be suspended in accordance with Section 108.08 until the deficiencies are corrected. The Department reserves the right to correct deficiencies by any means available and charge the Contractor for labor, equipment, and material costs incurred in emergency situations.</p>
<b>SUBSECTION: REVISION:</b>	<p>206.03.02 Embankment</p> <p>Replace the last paragraph with the following:</p> <p>When rock roadbed is specified, construct the upper 2 feet of the embankment according to Subsection 204.03.09 A).</p>
<b>SUBSECTION: REVISION:</b>	<p>213.03.03 Inspection and Maintenance.</p> <p>Replace the last sentence of the second paragraph with the following:</p> <p>Initiate corrective action within 24 hours of any noted deficiency and complete the work within 7 calendar days of receipt of the report. The Contractor shall make a concentrated effort to complete any corrective action required prior to the next predicted rainfall event.</p> <p>Insert the following paragraph after the second paragraph:</p> <p>When the Contractor is required to obtain the KPDES permit, it is their responsibility to ensure compliance with the inspection and maintenance requirements of the permit. The Engineer will perform verification inspections a minimum of once per month and within 7 days of a ½ inch or greater rainfall event. The Engineer will document these inspections using Form TC 63-61 A. The Engineer will provide copies of the inspection only when improvements to the BMP’s are required. Verification inspections performed by the Engineer do not relieve the Contractor of any responsibility for compliance with the KPDES permit. Initiate corrective action within 24 hours of any noted deficiency and complete the work within 7calendar days of receipt of the report. The Contractor shall make a concentrated effort to complete any corrective action required prior to the next predicted rainfall event.</p>

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<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	213.03.05 Temporary Control Measures. E) Temporary Seeding and Protection. Replace the first paragraph with the following:  Apply an Annual Rye seed mix at a rate of 100 pounds per acre during the months of March through August. In addition to the Annual Rye, add 10 pounds of German Foxtail-Millet ( <i>Setaria italica</i> ), when performing temporary seeding during the months of June through August. During the months of September through February, apply Winter Wheat or Rye Grain at a rate of 100 pounds per acre. Obtain the Engineer's approval prior to the application of the seed mixture.
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	213.03.05 Temporary Control Measures. F) Temporary Mulch. Replace the last sentence with the following:  Place temporary mulch to an approximate 2-inch loose depth (2 tons per acre) and anchor it into the soil by mechanically crimping it into the soil surface or applying tackifier to provide a protective cover. Regardless of the anchoring method used, ensure the protective cover holds until disturbance is required or permanent controls are installed.
<b>SUBSECTION:</b> <b>REVISION:</b>	303.05 Payment. Replace the second paragraph of the section with the following:  The Department will make payment for Drainage Blanket-Type II (ATDB) according to the Lot Pay Adjustment Schedule for Specialty Mixtures in Section 402.
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	401.02.04 Special Requirements for Dryer Drum Plants. F) Production Quality Control. Replace the first sentence with the following:  Stop mixing operations immediately if, at any time, a failure of the automatic electronic weighing system of the aggregate feed, asphalt binder feed, or water injection system control occurs.
<b>SUBSECTION:</b> <b>REVISION:</b>	401.02.04 Special Requirements for Dryer Drum Plants. Add the following:  Part G) <b>Water Injection System.</b> Provided each system has prior approval as specified in Subsection 402.01.01, the Department will allow the use of water injection systems for purposes of foaming the asphalt binder and lowering the mixture temperature for production of Warm Mix Asphalt (WMA). Ensure the equipment for water injection meets the following requirements: <ol style="list-style-type: none"><li>1) Injection equipment computer controls are automatically coupled to the plants controls (manual operation is not permitted);</li><li>2) Injection equipment has variable controls that introduce water ratios based on production rates of mixtures;</li><li>3) Injects water into the flow of asphalt binder prior to contacting the aggregate;</li><li>4) Provides alarms on the water injection system that operate when the flow of water is interrupted or deviates from the prescribed water rate.</li></ol>
<b>SUBSECTION:</b> <b>REVISION:</b>	401.03.01 Preparation of Mixtures. Replace the last sentence of the second paragraph with the following:  Do not use asphalt binder while it is foaming in a storage tank.

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<b>SUBSECTION:</b> <b>REVISION:</b>	401.03.01 Preparation of Mixtures. Replace the third paragraph and Mixing and Laying Temperature table with the following:  Maintain the temperature of the component materials and asphalt mixture within the ranges listed in the following table: <table><tr><th colspan="4">MIXING AND LAYING TEMPERATURES (°F)</th></tr><tr><th colspan="2">Material</th><th>Minimum</th><th>Maximum</th></tr><tr><td colspan="2">Aggregates</td><td>240</td><td>330</td></tr><tr><td colspan="2">Aggregates used with Recycled Asphalt Pavement (RAP)</td><td>240</td><td>—</td></tr><tr><td rowspan="2">Asphalt Binders</td><td>PG 64-22</td><td>230</td><td>330</td></tr><tr><td>PG 76-22</td><td>285</td><td>350</td></tr><tr><td rowspan="4">Asphalt Mixtures at Plant (Measured in Truck)</td><td>PG 64-22 HMA</td><td>250</td><td>330</td></tr><tr><td>PG 76-22 HMA</td><td>310</td><td>350</td></tr><tr><td>PG 64-22 WMA</td><td>230</td><td>275</td></tr><tr><td>PG 76-22 WMA</td><td>250</td><td>300</td></tr><tr><td rowspan="4">Asphalt Mixtures at Project (Measured in Truck When Discharging)</td><td>PG 64-22 HMA</td><td>230</td><td>330</td></tr><tr><td>PG 76-22 HMA</td><td>300</td><td>350</td></tr><tr><td>PG 64-22 WMA</td><td>210</td><td>275</td></tr><tr><td>PG 76-22 WMA</td><td>240</td><td>300</td></tr></table>	MIXING AND LAYING TEMPERATURES (°F)				Material		Minimum	Maximum	Aggregates		240	330	Aggregates used with Recycled Asphalt Pavement (RAP)		240	—	Asphalt Binders	PG 64-22	230	330	PG 76-22	285	350	Asphalt Mixtures at Plant (Measured in Truck)	PG 64-22 HMA	250	330	PG 76-22 HMA	310	350	PG 64-22 WMA	230	275	PG 76-22 WMA	250	300	Asphalt Mixtures at Project (Measured in Truck When Discharging)	PG 64-22 HMA	230	330	PG 76-22 HMA	300	350	PG 64-22 WMA	210	275	PG 76-22 WMA	240	300
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	PG 76-22 WMA	240	300																																															
<b>SUBSECTION:</b> <b>REVISION:</b>	402.01 Description. Replace the paragraph with the following:  Provide the process control and acceptance testing of all classes and types of asphalt mixtures which may be furnished either as hot mix asphalt (HMA) or warm mix asphalt (WMA) produced with water injection systems.																																																	
<b>SUBSECTION:</b> <b>REVISION:</b>	402.01.01 Warm Mix Asphalt (WMA) Evaluation and Approval. Add the following subsection:  402.01.01 Warm Mix Asphalt (WMA) Evaluation and Approval. The Department will evaluate trial production of WMA by use of a water injection system provided the system is installed according to the manufacturer’s requirements and satisfies the requirements of Section 401. Evaluation will include production and placement of WMA to demonstrate adequate mixture quality including volumetric properties and density by Option A as specified in Subsection 402.03.02 D). Do not place WMA for evaluation on Department projects. Provided production and placement operations satisfy the applicable quality levels, the Department will approve WMA production on Department projects using the water injection system as installed on the specific asphalt mixing plant evaluated.																																																	
<b>SUBSECTION:</b> <b>REVISION:</b>	402.05.02 Asphalt Mixtures and Mixtures With RAP. Replace Subsection Title as below:  402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP.																																																	
<b>SUBSECTION:</b> <b>REVISION:</b>	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Replace the paragraph with the following:  The Department will pay for the mixture at the Contract unit bid price and apply a Lot Pay Adjustment for each lot placed based on the degree of compliance with the specified tolerances. Using the appropriate Lot Pay Adjustment Schedule, the Department will assign a pay value for the applicable properties within each subplot and average the subplot pay values to determine the pay value for a given property for each lot. The Department will apply the Lot Pay Adjustment for each lot to a defined unit price of \$50.00 per ton. The Department will calculate the Lot Pay Adjustment using all possible incentives and disincentives but will not allow the overall pay value for a lot to exceed 1.00.																																																	

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<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. C) Conventional and RAP Mixtures Placed on Shoulders. Replace Title and Text with the following:  C) HMA, WMA and RAP Mixtures Placed on Shoulders or Placed as Asphalt Pavement Wedge.  1) Placed monolithically with the Mainline – Width of 4 feet or less. The Department will pay as mainline mixture. 2) Placed monolithically with the Mainline – Width of greater than 4 feet. The Department will pay as mainline mixture but use 1.00 for the Lane and Joint Density Pay Value for shoulder or Asphalt Pavement Wedge quantities. 3) Placed Separately. The Department will use 1.00 for the Lane and Joint Density Pay Value.												
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. D) Conventional and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge. Replace the title with the following: D) HMA, WMA, and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge.  Delete the following: D) HMA, WMA, and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge. The Department will pay as mainline mixture but use a 1.00 pay value for all properties.												
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	402.05.02 Asphalt Mixtures for Temporary Pavement. E) Asphalt Mixtures for Temporary Pavement. Replace E) Asphalt Mixtures for Temporary Pavement with the following:  D) Asphalt Mixtures for Temporary Pavement.												
<b>SUBSECTION:</b> <b>PART:</b> <b>TABLES:</b> <b>REVISION:</b>	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Lot Pay Adjustment Schedule, Compaction Option A, Base and Binder Mixtures VMA Replace the VMA table with the following: <table><tr><th colspan="2">VMA</th></tr><tr><th>Pay Value</th><th>Deviation From Minimum</th></tr><tr><td>1.00</td><td>≥ min. VMA</td></tr><tr><td>0.95</td><td>0.1-0.5 below min.</td></tr><tr><td>0.90</td><td>0.6-1 0 below min.</td></tr><tr><td>(1)</td><td>&gt; 1.0 below min.</td></tr></table>	VMA		Pay Value	Deviation From Minimum	1.00	≥ min. VMA	0.95	0.1-0.5 below min.	0.90	0.6-1 0 below min.	(1)	> 1.0 below min.
VMA													
Pay Value	Deviation From Minimum												
1.00	≥ min. VMA												
0.95	0.1-0.5 below min.												
0.90	0.6-1 0 below min.												
(1)	> 1.0 below min.												
<b>SUBSECTION:</b> <b>PART:</b> <b>TABLES:</b> <b>REVISION:</b>	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Lot Pay Adjustment Schedule, Compaction Option A, Surface Mixtures VMA Replace the VMA table with the following: <table><tr><th colspan="2">VMA</th></tr><tr><th>Pay Value</th><th>Deviation From Minimum</th></tr><tr><td>1.00</td><td>≥ min. VMA</td></tr><tr><td>0.95</td><td>0.1-0.5 below min.</td></tr><tr><td>0.90</td><td>0.6-1.0 below min.</td></tr><tr><td>(1)</td><td>&gt; 1.0 below min.</td></tr></table>	VMA		Pay Value	Deviation From Minimum	1.00	≥ min. VMA	0.95	0.1-0.5 below min.	0.90	0.6-1.0 below min.	(1)	> 1.0 below min.
VMA													
Pay Value	Deviation From Minimum												
1.00	≥ min. VMA												
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(1)	> 1.0 below min.												

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<b>SUBSECTION:</b> <b>PART:</b> <b>TABLE:</b> <b>REVISION:</b>	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Lot Pay Adjustment Schedule, Compaction Option B Mixtures VMA Replace the VMA table with the following: <div><table><tr><th colspan="2">VMA</th></tr><tr><th>Pay Value</th><th>Deviation From Minimum</th></tr><tr><td>1.00</td><td>≥min. VMA</td></tr><tr><td>0.95</td><td>0 1-0.5 bel w min.</td></tr><tr><td>0.9</td><td>0.6-1.0 below min.</td></tr><tr><td>(2)</td><td>&gt; 1.0 below min.</td></tr></table></div>	VMA		Pay Value	Deviation From Minimum	1.00	≥min. VMA	0.95	0 1-0.5 bel w min.	0.9	0.6-1.0 below min.	(2)	> 1.0 below min.													
VMA																										
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(2)	> 1.0 below min.																									
<b>SUBSECTION:</b> <b>PART:</b> <b>NUMBER:</b> <b>REVISION:</b>	403.03.03 Preparation of Mixture. C) Mix Design Criteria. 1) Preliminary Mix Design. Replace the last two sentences of the paragraph and table with the following:  Complete the volumetric mix design at the appropriate number of gyrations as given in the table below for the number of 20-year ESAL's. The Department will define the relationship between ESAL classes, as given in the bid items for Superpave mixtures, and 20-year ESAL ranges as follows: <div><table><tr><th colspan="2"></th><th colspan="3">Number of Gyrations</th></tr><tr><th>Class</th><th>ESAL's (millions)</th><th><math>N_{initial}</math></th><th><math>N_{design}</math></th><th><math>N_{max}</math></th></tr><tr><td>2</td><td>&lt; 3.0</td><td>6</td><td>50</td><td>75</td></tr><tr><td>3</td><td>3.0 to &lt; 30.0</td><td>7</td><td>75</td><td>115</td></tr><tr><td>4</td><td>≥ 30.0</td><td>8</td><td>100</td><td>160</td></tr></table></div>			Number of Gyrations			Class	ESAL's (millions)	$N_{initial}$	$N_{design}$	$N_{max}$	2	< 3.0	6	50	75	3	3.0 to < 30.0	7	75	115	4	≥ 30.0	8	100	160
		Number of Gyrations																								
Class	ESAL's (millions)	$N_{initial}$	$N_{design}$	$N_{max}$																						
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3	3.0 to < 30.0	7	75	115																						
4	≥ 30.0	8	100	160																						
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	403.03.09 Leveling and Wedging, and Scratch Course. A) Leveling and Wedging. Replace the first sentence of the first paragraph with the following:  Conform to the gradation requirements (control points) of AASHTO M 323 for base, binder, or surface as the Engineer directs.																									
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	403.03.09 Leveling and Wedging, and Scratch Course. B) Scratch Course. Replace the second sentence of the first paragraph with the following:  Conform to the gradation requirements (control points) of AASHTO M 323 for base, binder, or surface as the Engineer directs.																									
<b>SUBSECTION:</b> <b>REVISION:</b>	407.01 DESCRIPTION. Replace the first sentence of the paragraph with the following:  Construct a pavement wedge composed of a hot-mixed or warm-mixed asphalt mixture.																									
<b>SUBSECTION:</b> <b>REVISION:</b>	409.01 DESCRIPTION. Replace the first sentence of the paragraph with the following:  Use reclaimed asphalt pavement (RAP) from Department projects or other approved sources in hot mix asphalt (HMA) or warm mix asphalt (WMA) provided mixture requirements are satisfied.																									
<b>SUBSECTION:</b> <b>REVISION:</b>	410.01 DESCRIPTION. Delete the second sentence of the paragraph.																									

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<b>SUBSECTION:</b> <b>REVISION:</b>	410.03.01 Corrective Work. Replace the last sentence of the paragraph with the following:  Provide a final surface comparable to the adjacent pavement that does not require corrective work in respect to texture, appearance, and skid resistance.														
<b>SUBSECTION:</b> <b>PART:</b> <b>NUMBER:</b> <b>REVISION:</b>	410.03.02 Ride Quality. B) Requirements. 1) Category A. Replace the last sentence of the first paragraph with the following:  At the Department’s discretion, a pay deduction of \$1200 per 0.1-lane-mile section may be applied in lieu of corrective work.														
<b>SUBSECTION:</b> <b>PART:</b> <b>NUMBER:</b> <b>REVISION:</b>	410.03.02 Ride Quality. B) Requirements. 2) Category B. Replace the second and third sentence of the first paragraph with the following:  When the IRI is greater than 90 for a 0.1-mile section, perform corrective work, or remove and replace the pavement to achieve the specified IRI. At the Department’s discretion, a pay deduction of \$750 per 0.1-lane-mile section may be applied in lieu of corrective work.														
<b>SUBSECTION:</b> <b>REVISION:</b>	410.05 PAYMENT. Add the following sentence to the end of the first paragraph:  The sum of the pay value adjustments for ride quality shall not exceed \$0 for the project as a whole.														
<b>SUBSECTION:</b> <b>REVISION:</b>	413.05.02 CL3 SMA BASE 1.00D PG76-22. Insert the following sentence between the first and second sentence of the first paragraph:  The Department will calculate the Lot Pay Adjustment using all possible incentives and disincentives but will not allow the overall pay value for a lot to exceed 1.00.														
<b>SUBSECTION:</b> <b>TABLE:</b> <b>REVISION:</b>	413.05.02 CL3 SMA BASE 1.00D PG 76-22. JOINT DENSITY TABLE Replace the joint density table with the following: <table><tr><th colspan="2">LANE DENSITY</th></tr><tr><th>Pay Value</th><th>Test Result (%)</th></tr><tr><td>1.05</td><td>95.0-96.5</td></tr><tr><td>1.00</td><td>93.0-94.9</td></tr><tr><td>0.95</td><td>92.0-92.9 or 96.6-97.0</td></tr><tr><td>0.90</td><td>91.0-91.9 or 97.1-97.5</td></tr><tr><td>(1)</td><td>&lt; 91.0 or &gt; 97.5</td></tr></table>	LANE DENSITY		Pay Value	Test Result (%)	1.05	95.0-96.5	1.00	93.0-94.9	0.95	92.0-92.9 or 96.6-97.0	0.90	91.0-91.9 or 97.1-97.5	(1)	< 91.0 or > 97.5
LANE DENSITY															
Pay Value	Test Result (%)														
1.05	95.0-96.5														
1.00	93.0-94.9														
0.95	92.0-92.9 or 96.6-97.0														
0.90	91.0-91.9 or 97.1-97.5														
(1)	< 91.0 or > 97.5														
<b>SUBSECTION:</b> <b>REVISION:</b>	413.05.03 CL3 SMA SURF 0.50A PG76-22 and CL3 SMA SURF 0.38A PG76-22. Insert the following sentence between the first and second sentence of the first paragraph:  The Department will calculate the Lot Pay Adjustment using all possible incentives and disincentives but will not allow the overall pay value for a lot to exceed 1.00.														

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<b>SUBSECTION:</b> <b>TABLE:</b> <b>REVISION:</b>	413.05.03 CL3 SMA SURF 0.50A PG76-22 and CL3 SMA SURF 0.38A PG76-22. JOINT DENSITY TABLE Replace the joint density table with the following: <table><tr><th colspan="3">DENSITY</th></tr><tr><th>Pay Value</th><th>Lane Density Test Result (%)</th><th>Joint Density Test Result (%)</th></tr><tr><td>1.05</td><td>95.0-96.5</td><td>92.0-96.0</td></tr><tr><td>1.00</td><td>93.0-94.9</td><td>90.0-91.9</td></tr><tr><td>0.95</td><td>92.0-92.9 or 96.6-97.0</td><td>89.0-89.9 or 96.1-96.5</td></tr><tr><td>0.90</td><td>91.0-91.9 or 97.1-97.5</td><td>88.0-88.9 or 96.6-97.0</td></tr><tr><td>0.75</td><td>----</td><td>&lt; 88.0 or &gt; 97.0</td></tr><tr><td>(1)</td><td>&lt; 91.0 or &gt; 97.5</td><td>----</td></tr></table>	DENSITY			Pay Value	Lane Density Test Result (%)	Joint Density Test Result (%)	1.05	95.0-96.5	92.0-96.0	1.00	93.0-94.9	90.0-91.9	0.95	92.0-92.9 or 96.6-97.0	89.0-89.9 or 96.1-96.5	0.90	91.0-91.9 or 97.1-97.5	88.0-88.9 or 96.6-97.0	0.75	----	< 88.0 or > 97.0	(1)	< 91.0 or > 97.5	----
DENSITY																									
Pay Value	Lane Density Test Result (%)	Joint Density Test Result (%)																							
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0.95	92.0-92.9 or 96.6-97.0	89.0-89.9 or 96.1-96.5																							
0.90	91.0-91.9 or 97.1-97.5	88.0-88.9 or 96.6-97.0																							
0.75	----	< 88.0 or > 97.0																							
(1)	< 91.0 or > 97.5	----																							
<b>SUBSECTION:</b> <b>REVISION:</b>	501.05.02 Ride Quality. Add the following sentence to the end of the first paragraph:  The sum of the pay value adjustments for the ride quality shall not exceed \$0 for the project as a whole.																								
<b>SUBSECTION:</b> <b>REVISION:</b>	505.03.04 Detectable Warnings. Replace the first sentence with the following:  Install detectable warning pavers at all sidewalk ramps and on all commercial entrances according to the Standard Drawings.																								
<b>SUBSECTION:</b> <b>REVISION:</b>	505.04.04 Detectable Warnings. Replace the paragraph with the following:  The Department will measure the quantity in square feet. All retrofit applications for maintenance projects will require the removal of existing sidewalks to meet the requirements of the standard drawings applicable to the project. The cost associated with the removal of the existing sidewalk will be incidental to the detectable warnings bid item or incidental to the bid item for the construction of the concrete sidewalk unless otherwise noted.																								
<b>SUBSECTION:</b> <b>REVISION:</b>	505.05 PAYMENT. Add the following to the bid item table: <table><tr><td><u>Code</u></td><td><u>Pay Item</u></td><td><u>Pay Unit</u></td></tr><tr><td>23158ES505</td><td>Detectable Warnings</td><td>Square Foot</td></tr></table>	<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>	23158ES505	Detectable Warnings	Square Foot																		
<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>																							
23158ES505	Detectable Warnings	Square Foot																							
<b>SUBSECTION:</b> <b>REVISION:</b>	509.01 DESCRIPTION. Replace the second paragraph with the following:  The Department may allow the use of similar units that conform to the National Cooperative Highway Research Program (NCHRP) 350 Test Level 3 (TL-3) requirements and the typical features depicted by the Standard Drawings. Obtain the Engineers approval prior to use. Ensure the barrier wall shape, length, material, drain slot dimensions and locations typical features are met and the reported maximum deflection is 3 feet or less from the NCHRP 350 TL-3 for Test 3 – 11 (pickup truck impacting at 60 mph at a 25-degree angle.)																								



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<b>SUBSECTION:</b> <b>REVISION:</b>	<p>601.03.02 Concrete Producer Responsibilities.</p> <p>Replace the first sentence with the following:</p> <p>Obtain the concrete from producers that are in compliance with KM 64-323 and on the Department's List of Approved Materials.</p> <p>Add the following to the first paragraph:</p> <p>If a concrete plant becomes unqualified during a project and there are no other qualified plants in the region, the Department will provide qualified personnel to witness and ensure the producer follows the required specifications. The Department will assess the Contractor a \$100 per hour charge for this service.</p>
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	<p>601.03.02 Concrete Producer Responsibilities.</p> <p>B) Certified Personnel.</p> <p>Replace the second sentence with the following:</p> <p>Ensure that the concrete technicians are certified as ACI Level I (Level I) and KRMCA Level II (Level II).</p>
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	<p>601.03.02 Concrete Producer Responsibilities.</p> <p>C) Quality Control.</p> <p>Replace the second sentence with the following:</p> <p>Ensure that the Level II concrete technician is present when work is in progress and is responsible for inspecting trucks, batch weight calculations, monitoring batching, making mixture adjustments, reviewing the slump, air content, unit weight, temperature, and aggregate tests, all to provide conforming concrete to the project.</p>
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	<p>601.03.02 Concrete Producer Responsibilities.</p> <p>D) Producer Testing.</p> <p>Replace with the following:</p> <p>When producing for state work, have a Qualified Concrete Aggregate Technician or KYTC Qualified Aggregate Technician perform, at a minimum, weekly gradations and minus 200 wash tests and daily moisture contents of coarse and fine aggregate (Fine aggregates will not require a minus 200 wash test). Using the daily moisture contents, adjust the approved mix design accordingly prior to production. Ensure that the Level II concrete technician is present when work is in progress and is responsible for inspecting trucks, batch weight calculations, monitoring batching, making mixture adjustments, reviewing the slump, air content, unit weight, temperature, and aggregate tests, all to provide conforming concrete to the project.</p>
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	<p>601.03.02 Concrete Producer Responsibilities.</p> <p>E) Trip Tickets.</p> <p>Replace the second sentence with the following:</p> <p>Include on the trip ticket the Sample ID for the approved mix design and a statement certifying that the data on the ticket is correct and that the mixture conforms to the mix design.</p>
<b>SUBSECTION:</b> <b>PART:</b> <b>NUMBER:</b> <b>REVISION:</b>	<p>601.03.03 Proportioning and Requirements.</p> <p>C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures</p> <p>2) Mineral Admixtures.</p> <p>Replace the second sentence with the following:</p> <p>Reduction of the total cement content by a combination of mineral admixtures will be allowed, up to a maximum of 40 percent.</p>



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<b>SUBSECTION:</b> <b>PART:</b> <b>NUMBER:</b> <b>LETTER:</b> <b>REVISION:</b>	601.03.03 Proportioning and Requirements. C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures 2) Mineral Admixtures. a) Fly Ash. Delete the last sentence of the third paragraph.
<b>SUBSECTION:</b> <b>PART:</b> <b>NUMBER:</b> <b>LETTER:</b> <b>REVISION:</b>	601.03.03 Proportioning and Requirements. C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures 2) Mineral Admixtures. b) Ground Granulated Blast Furnace Slag (GGBF Slag). Delete the second sentence of the third paragraph.
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	601.03.03 Proportioning and Requirements. E) Measuring. Add the following sentence:  Conform to the individual ingredient material batching tolerances in Appendix A.
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	601.03.09 Placing Concrete. A) General. Replace the last sentence of the fourth paragraph with the following:  Do not use aluminum or aluminum alloy troughs, pipes, or chutes that have surface damage or for lengths greater than 20 feet.  Replace the second sentence of the fifth paragraph with the following:  When pumping, equip the delivery pipe with a nozzle, having a minimum of 2 right angles, at the discharge end. Alternate nozzles or restriction devices may be allowed with prior approval by the Engineer.
<b>SUBSECTION:</b> <b>REVISION:</b>	605.02.05 Forms. Delete the last sentence.
<b>SUBSECTION:</b> <b>REVISION:</b>	605.03.04 Tack Welding. Replace with the following:  The Department does not allow tack welding.
<b>SUBSECTION:</b> <b>REVISION:</b>	606.02.11 Coarse Aggregate. Replace with the following:  Conform to Section 805, size No. 8 or 9-M.
<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	609.03.04 Expansion and Fixed Joints. D) Preformed Neoprene Joint Seals. Replace the last sentence of paragraph seven with the following:  Field splices will not be allowed during partial width construction. It is Contractor's responsibility to determine and install the length of seal required for the joint to barrier wall as per the standard drawing.
<b>SUBSECTION:</b> <b>REVISION:</b>	609.03.09 Finish with Burlap Drag. Delete the entire section.
<b>SUBSECTION:</b> <b>REVISION:</b>	609.04.06 Joint Sealing. Replace Subsection 601.04 with the following:  Subsection 606.04.08.

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<b>SUBSECTION: REVISION:</b>	<p>609.05 Payment. Replace the Pay Unit for Joint Sealing with the following:</p> <p>See Subsection 606.05.</p>
<b>SUBSECTION: REVISION:</b>	<p>701.03.06 Initial Backfill. Replace the first sentence of the last paragraph with the following:</p> <p>When the Contract specifies, perform quality control testing to verify compaction according to KM 64-512.</p>
<b>SUBSECTION: REVISION:</b>	<p>701.03.08 Testing of Pipe. Replace and rename the subsection with the following:</p> <p><b>701.03.08 Inspection of Pipe.</b> The engineer will visually inspect all pipe. The Department will require camera/video inspection on a minimum of 50 percent of the linear feet of all installed pipe structures. Conduct camera/video inspection according to KM 64-114. The pipe to be installed under pavement will be selected first. If the total linear feet of pipe under pavement is less than 50 percent of the linear feet of all pipe installed, the Engineer will randomly select installations from the remaining pipe structures on the project to provide for the minimum inspection requirement. The pipe will be selected in complete runs (junction-junction or headwall-headwall) until the total linear feet of pipe to be inspected is at least 50 percent of the total linear feet of all installed pipe on the project.</p> <p>Unless the Engineer directs otherwise, schedule the inspections no sooner than 30 days after completing the installation and completion of earthwork to within 1 foot of the finished subgrade. When final surfacing conflicts with the 30-day minimum, conduct the inspections prior to placement of the final surface. The contractor must ensure that all pipe are free and clear of any debris so that a complete inspection is possible.</p> <p>Notify the Engineer immediately if distresses or locations of improper installation are discovered. When camera testing shows distresses or improper installation in the installed pipe, the Engineer may require additional sections to be tested. Provide the video and report to the Engineer when testing is complete in accordance with KM 64-114.</p> <p>Pipes that exhibit distress or signs of improper installation may necessitate repair or removal as the Engineer directs. These signs include, but are not limited to: deflection, cracking, joint separation, sagging or other interior damage. If corrugated metal or thermoplastic pipes exceed the deflection and installation thresholds indicated in the table below, provide the Department with an evaluation of each location conducted by a Professional Engineer addressing the severity of the deflection, structural integrity, environmental conditions, design service life, and an evaluation of the factor of safety using Section 12, "Buried Structures and Tunnel Liners," of the AASHTO LRFD Bridge Design Specifications. Based on the evaluation, the Department may allow the pipe to remain in place at a reduced unit price as shown in the table below. Provide 5 business days for the Department to review the evaluation. When the pipe shows deflection of 10 percent or greater, remove and replace the pipe. When the camera/video or laser inspection results are called into question, the Department may require direct measurements or mandrel testing.</p> <p>The Cabinet may elect to conduct Quality Assurance verifications of any pipe inspections.</p>
<b>SUBSECTION: REVISION:</b>	<p>701.04.07 Testing. Replace and rename the subsection with the following:</p> <p><b>701.04.07 Pipeline Video Inspection.</b> The Department will measure the quantity in linear feet along the pipe invert of the structure inspected. When inspection above the specified 50 percent is performed due to a disagreement or suspicion of additional distresses and the Department is found in error, the Department will measure the quantity as Extra Work according to Subsection 104.03. However, if additional distresses or non-conformance is found, the Department will not measure the additional inspection for payment.</p>

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<b>SUBSECTION:</b> <b>REVISION:</b>	701.05 PAYMENT Add the following pay item to the list of pay items: <table><tr><td><u>Code</u></td><td><u>Pay Item</u></td><td><u>Pay Unit</u></td></tr><tr><td>23131ER701</td><td>Pipeline Video Inspection</td><td>Linear Foot</td></tr></table>	<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>	23131ER701	Pipeline Video Inspection	Linear Foot						
<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>											
23131ER701	Pipeline Video Inspection	Linear Foot											
<b>SUBSECTION:</b> <b>TABLE:</b> <b>REVISION:</b>	701.05 PAYMENT PIPE DEFLECTION DETERMINED BY CAMERA TESTING Replace this table with the following table and note: <table><tr><th colspan="2">PIPE DEFLECTION</th></tr><tr><th>Amount of Deflection (%)</th><th>Payment</th></tr><tr><td>0.0 to 5.0</td><td>100% of the Unit Bid Price</td></tr><tr><td>5.1 to 9.9</td><td>50% of the Unit Bid Price <sup>(1)</sup></td></tr><tr><td>10 or greater</td><td>Remove and Replace</td></tr></table> <i>(1) Provide Structural Analysis as indicated above. Based on the structural analysis, pipe may be allowed to remain in place at the reduced unit price.</i>	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 <sup>(1)</sup>	10 or greater	Remove and Replace		
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 <sup>(1)</sup>												
10 or greater	Remove and Replace												
<b>SUBSECTION:</b> <b>TABLE:</b> <b>REVISION:</b>	701.05 PAYMENT PIPE DEFLECTION DETERMINED BY MANDREL TESTING Delete this table.												
<b>SUBSECTION:</b> <b>REVISION:</b>	713.02.01 Paint. Replace with the following:  Conform to Section 842 and Section 846.												
<b>SUBSECTION:</b> <b>REVISION:</b>	713.03 CONSTRUCTION. Replace the first sentence of the second paragraph with the following:  On interstates and parkways, and other routes approved by the State Highway Engineer, install pavement striping that is 6 inches in width.												
<b>SUBSECTION:</b> <b>REVISION:</b>	713.03.03 Paint Application. Replace the second paragraph with the following table: <table><tr><th>Material</th><th>Paint Application Rate</th><th>Glass Beads Application Rate</th></tr><tr><td>4 inch waterborne paint</td><td>Min. of 16.5 gallons/mile</td><td>Min. of 6 pounds/gallon</td></tr><tr><td>6 inch waterborne paint</td><td>Min. of 24.8 gallons/mile</td><td>Min. of 6 pounds/gallon</td></tr><tr><td>6 inch durable waterborne paint</td><td>Min. of 36 gallons/mile</td><td>Min. of 6 pounds/gallon</td></tr></table>	Material	Paint Application Rate	Glass Beads Application Rate	4 inch waterborne paint	Min. of 16.5 gallons/mile	Min. of 6 pounds/gallon	6 inch waterborne paint	Min. of 24.8 gallons/mile	Min. of 6 pounds/gallon	6 inch durable waterborne paint	Min. of 36 gallons/mile	Min. of 6 pounds/gallon
Material	Paint Application Rate	Glass Beads Application Rate											
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6 inch durable waterborne paint	Min. of 36 gallons/mile	Min. of 6 pounds/gallon											
<b>SUBSECTION:</b> <b>REVISION:</b>	713.03.04 Marking Removal. Replace the last sentence of the paragraph with the following:  Vacuum all marking material and removal debris concurrently with the marking removal operation.												
<b>SUBSECTION:</b> <b>REVISION:</b>	713.05 PAYMENT. Insert the following codes and pay items below the Pavement Striping – Permanent Paint: <table><tr><td>Code</td><td>Pay Item</td><td>Pay Unit</td></tr><tr><td>24189ER</td><td>Durable Waterborne Marking – 6 IN W</td><td>Linear Foot</td></tr><tr><td>24190ER</td><td>Durable Waterborne Marking – 6 IN Y</td><td>Linear Foot</td></tr><tr><td>24191ER</td><td>Durable Waterborne Marking – 12 IN W</td><td>Linear Foot</td></tr></table>	Code	Pay Item	Pay Unit	24189ER	Durable Waterborne Marking – 6 IN W	Linear Foot	24190ER	Durable Waterborne Marking – 6 IN Y	Linear Foot	24191ER	Durable Waterborne Marking – 12 IN W	Linear Foot
Code	Pay Item	Pay Unit											
24189ER	Durable Waterborne Marking – 6 IN W	Linear Foot											
24190ER	Durable Waterborne Marking – 6 IN Y	Linear Foot											
24191ER	Durable Waterborne Marking – 12 IN W	Linear Foot											

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<b>SUBSECTION: REVISION:</b>	714.03 CONSTRUCTION. Insert the following paragraph at the end of the third paragraph:  Use Type I Tape for markings on bridge decks, JPC pavement and JPC intersections. Thermoplastic should only be used for markings on asphalt pavement.
<b>SUBSECTION: REVISION:</b>	714.03.07 Marking Removal. Replace the third sentence of the paragraph with the following:  Vacuum all marking material and removal debris concurrently with the marking removal operation.
<b>SUBSECTION: REVISION:</b>	716.01 DESCRIPTION. Insert the following after the first sentence:  Energize lighting as soon as it is fully functional and ready for inspection. Ensure that lighting remains operational until the Division of Traffic Operations has provided written acceptance of the electrical work.
<b>SUBSECTION: REVISION:</b>	716.02.01 Roadway Lighting Materials. Replace the last two sentences of the paragraph with the following:  Submit for material approval an electronic file of descriptive literature, drawings, and any requested design data to the Division of Traffic Operations. Do not begin work until shop drawings are approved. Notify the Engineer when submitting any information to the Division of Traffic Operations. Do not make substitutions for approved materials without written permission as described above.
<b>SECTION: REVISION:</b>	717 – THERMOPLASTIC INTERSECTION MARKINGS. Replace the section name with the following:  INTERSECTION MARKINGS.
<b>SUBSECTION: REVISION:</b>	717.01 DESCRIPTION: Replace the paragraph with the following:  Furnish and install thermoplastic or Type I tape intersection markings (Stop Bars, Crosswalks, Turn Arrows, etc.) Thermoplastic markings may be installed by either a machine applied, screed extrusion process or by applying preformed thermoplastic intersection marking material.
<b>SUBSECTION: REVISION:</b>	717.02 MATERIALS AND EQUIPMENT. Insert the following subsection:  717.02.06 Type I Tape. Conform to Section 836.
<b>SUBSECTION: REVISION:</b>	717.03.03 Application. Insert the following part to the subsection:  B) Type I Tape Intersection Markings. Apply according to the manufacturer's recommendations. Cut all tape at pavement joints when applied to concrete surfaces.

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<b>SUBSECTION:</b> <b>PART:</b> <b>REVISION:</b>	717.03.05 Proving Period. A) Requirements. Insert the following to this section:  2) Type I Tape. During the proving period, ensure that the pavement marking material shows no signs of failure due to blistering, excessive cracking, bleeding, staining, discoloration, oil content of the pavement materials, drippings, chipping, spalling, poor adhesion to the pavement, loss of retroreflectivity, vehicular damage, and normal wear. Type I Tape is manufactured off site and warranted by the manufacturer to meet certain retroreflective requirements. As long as the material is adequately bonded to the surface and shows no signs of failure due to the other items listed in Subsection 714.03.06 A) 1), retroreflectivity readings will not be required. In the absence of readings, the Department will accept tape based on a nighttime visual observation.																																							
<b>SUBSECTION:</b> <b>REVISION:</b>	717.03.06 Marking Removal. Replace the third sentence of the paragraph with the following:  Vacuum all marking material and removal debris concurrently with the marking removal operation.																																							
<b>SUBSECTION:</b> <b>REVISION:</b>	717.05 PAYMENT. Insert the following bid item codes: <table><tr><td><u>Code</u></td><td><u>Pay Unit</u></td><td><u>Pay Item</u></td></tr><tr><td>06563</td><td>Pave Marking – R/R X Bucks 16 IN</td><td>Linear Foot</td></tr><tr><td>20782NS714</td><td>Pave Marking Thermo – Bike</td><td>Each</td></tr><tr><td>23251ES717, 23264ES717</td><td>Pave Mark TY I Tape X-Walk, Size</td><td>Linear Foot</td></tr><tr><td>23252ES717, 23265ES717</td><td>Pave Mark TY I Tape Stop Bar, Size</td><td>Linear Foot</td></tr><tr><td>23253ES717</td><td>Pave Mark TY I Tape Cross Hatch</td><td>Square Foot</td></tr><tr><td>23254ES717</td><td>Pave Mark TY I Tape Dotted Lane Extension</td><td>Linear Foot</td></tr><tr><td>23255ES717</td><td>Pave Mark TY I Tape Arrow, Type</td><td>Each</td></tr><tr><td>23268ES717-23270ES717</td><td></td><td></td></tr><tr><td>23256ES717</td><td>Pave Mark TY I Tape- ONLY</td><td>Each</td></tr><tr><td>23257ES717</td><td>Pave Mark TY I Tape- SCHOOL</td><td>Each</td></tr><tr><td>23266ES717</td><td>Pave Mark TY 1 Tape R/R X Bucks-16 IN</td><td>Linear Foot</td></tr><tr><td>23267ES717</td><td>Pave Mark TY 1 Tape-Bike</td><td>Each</td></tr></table>	<u>Code</u>	<u>Pay Unit</u>	<u>Pay Item</u>	06563	Pave Marking – R/R X Bucks 16 IN	Linear Foot	20782NS714	Pave Marking Thermo – Bike	Each	23251ES717, 23264ES717	Pave Mark TY I Tape X-Walk, Size	Linear Foot	23252ES717, 23265ES717	Pave Mark TY I Tape Stop Bar, Size	Linear Foot	23253ES717	Pave Mark TY I Tape Cross Hatch	Square Foot	23254ES717	Pave Mark TY I Tape Dotted Lane Extension	Linear Foot	23255ES717	Pave Mark TY I Tape Arrow, Type	Each	23268ES717-23270ES717			23256ES717	Pave Mark TY I Tape- ONLY	Each	23257ES717	Pave Mark TY I Tape- SCHOOL	Each	23266ES717	Pave Mark TY 1 Tape R/R X Bucks-16 IN	Linear Foot	23267ES717	Pave Mark TY 1 Tape-Bike	Each
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<b>SUBSECTION:</b> <b>REVISION:</b>	725.02.02 Type VI Class C & CT. Replace bullet 2) with the following:  2) The SCI100GM System as developed by SCI Products, Inc. of St. Charles, Illinois. For all miscellaneous metal work conform to ASTM A 36 and galvanize according to ASTM A 123. For the SCI100GM fender panels conform to AASHTO 180. Galvanize the SCI100GM fender panels and SCI100GM -beam connectors after fabrication according to ASTM A 123.																																							
<b>SUBSECTION:</b> <b>REVISION:</b>	725.02.04 Type VII Class C. Replace bullet 2) with the following: 2) The SCI100GM System as developed by SCI Products, Inc. of St. Charles, Illinois. For all miscellaneous metal work conform to ASTM A 36 and galvanize according to ASTM A 123. For the SCI100GM fender panels conform to AASHTO 180. Galvanize the SCI100GM fender panels and SCI100GM-beam connectors after fabrication according to ASTM A 123.																																							
<b>SUBSECTION:</b> <b>REVISION:</b>	801.01 REQUIREMENTS. Delete the fourth sentence of the first paragraph and add the following to the second paragraph.  When supplying cement with a SO <sub>3</sub> content above the value in table I of ASTM C 150, include supportive ASTM C 1038 14-day expansion test data for the supplied SO <sub>3</sub> content on the certification.																																							

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<b>SUBSECTION:</b> <b>REVISION:</b>	805.01 GENERAL. Replace the second paragraph with the following:  The Department’s List of Approved Materials includes the Aggregate Source List, the list of Class A and Class B Polish-Resistant Aggregate Sources, and the Concrete Restriction List.
<b>SUBSECTION:</b> <b>REVISION:</b>	805.04 CONCRETE. Delete footnote (1) The permissible lightweight particle content of gravel coarse aggregate for reinforced concrete box culvert sections, concrete pipe, pipe arches, or for use only in concrete that will be permanently protected from freezing by 2 feet or more of cover is 10.0 percent.
<b>SUBSECTION:</b> <b>REVISION:</b>	805.04 CONCRETE. Replace the “AASHTO T 160” reference in first sentence of the third paragraph with “KM 64-629”
<b>SUBSECTION:</b> <b>TABLE:</b> <b>PART:</b> <b>REVISION:</b>	805.15 GRADATION ACCEPTANCE OF NON-SPECIFICATION COARSE AGGREGATE. AGGREGATE SIZE USE Cement Concrete Structures and Incidental Construction Replace “9-M for Waterproofing Overlays” with “8 or 9-M for Waterproofing Overlays”

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**SUBSECTION:** 805.15 GRADATION ACCEPTANCE OF NON-SPECIFICATION COARSE AGGREGATE.  
**REVISION:** Replace the "SIZES OF COARSE AGGREGATES" table in with the following:

SIZES OF COARSE AGGREGATES																		
AMOUNTS FINER THAN EACH LABORATORY SIEVE (SQUARE OPENINGS) PERCENTAGE BY WEIGHT																		
Aggregate Size	Sieve	Nominal <sup>(3)</sup> Maximum Aggregate Size	4 inch	3 1/2 inch	3 inch	2 1/2 inch	2 inch	1 1/2 inch	1 inch	3/4 inch	1/2 inch	3/8 inch	No. 4	No. 8	No. 16	No. 30	No. 100	No. 200
1	3 1/2 inch		100	90-100		25-60		0-15		0-5								
2	2 1/2 inch				100	90-100	35-70	0-15		0-5								
23	2 inch				100		40-90		0-15		0-5							
3	2 inch					100	90-100	35-70	0-15		0-5							
357	2 inch					100	95-100		35-70		10-30		0-5					
4	1 1/2 inch						100	90-100	20-55	0-15		0-5						
467	1 1/2 inch						100	95-100		35-70		10-30	0-5					
5	1 inch							100	90-100	20-55	0-10	0-5						
57	1 inch							100	95-100		25-60		0-10	0-5				
610	1 inch							100	85-100		40-75		15-40					
67	3/4 inch								100	90-100		20-55	0-10	0-5				
68	3/4 inch								100	90-100		30-65	5-25	0-10	0-5			
710	3/4 inch								100	80-100		30-75	0-30					
78	1/2 inch									100	90-100	40-75	5-25	0-10	0-5			
8	3/8 inch										100	85-100	10-30	0-10	0-5			
9-M	3/8 inch										100	75-100	0-25	0-5				
10 <sup>(2)</sup>	No. 4											100	85-100				10-30	
11 <sup>(2)</sup>	No. 4											100	40-90	10-40			0-5	
DENSE GRADED AGGREGATE <sup>(1)</sup>	3/4 inch								100	70-100		50-80	30-65			10-40		4-13
CRUSHED <sup>(4)</sup> STONE BASE <sup>(1)</sup>	1 1/2 inch					100		90-100		60-95		30-70	15-55			5-20		0-8

<sup>(1)</sup> Gradation performed by wet sieve KM 64-620 or AASHTO T 11/T 27.  
<sup>(2)</sup> Sizes shown for convenience and are not to be considered as coarse aggregates.  
<sup>(3)</sup> Nominal Maximum Size is the largest sieve on the gradation table for an aggregate size on which any material may be retained.  
Note: The Department will allow blending of same source/same type aggregate when precise procedures are used such as cold feed, belt, or equivalent and combining of sizes or types of aggregate using the weigh hopper at concrete plants or controlled feed belts at the pugmill to obtain designated sizes.



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<b>SUBSECTION: REVISION:</b>	805.16 SAMPLING AND TESTING. Replace the “AASHTO T 160” method with the “KM 64-629” method for the Concrete Beam Expansion Test.  Replace the “ASTM D 3042” method with the “KM 64-625” method for Insoluble Residue.						
<b>SUBSECTION: REVISION:</b>	810.04.01 Coating Requirements. Replace the “Subsection 806.07” references with “Subsection 806.06”						
<b>SUBSECTION: PART: REVISION:</b>	810.06.01 Polyvinyl Chloride (PVC) Pipe. B) Culvert and Entrance Pipe. Replace the title with the following:  B) Culvert Pipe, Storm Sewer, and Entrance Pipe.						
<b>SUBSECTION: REVISION:</b>	823.02 LIQUID MEMBRANE FORMING COMPOUNDS. Add the following:  Effective July 1, 2011, to remain on or be added to the Department’s approved list, products must have completed testing or been submitted for testing through the National Transportation Product Evaluation Program (NTPEP) for Concrete Curing Compounds.						
<b>SUBSECTION: REVISION:</b>	837.03 APPROVAL. Replace the last sentence with the following:  The Department will sample and evaluate for approval each lot of thermoplastic material delivered for use per contract prior to installation of the thermoplastic material. Do not allow the installation of thermoplastic material until it has been approved by the Division of Materials. Allow the Department a minimum of 10 working days to evaluate and approve thermoplastic material.						
<b>SUBSECTION: REVISION:</b>	837.03.01 Composition. COMPOSITION Table: Replace <table border="1"><tr><td>Lead Chromate</td><td>0.0 max.</td><td>4.0 min.</td></tr></table> with <table border="1"><tr><td>Heavy Metals Content</td><td colspan="2">Comply with 40 CFR 261</td></tr></table>	Lead Chromate	0.0 max.	4.0 min.	Heavy Metals Content	Comply with 40 CFR 261	
Lead Chromate	0.0 max.	4.0 min.					
Heavy Metals Content	Comply with 40 CFR 261						
<b>SUBSECTION: TABLE: REVISION:</b>	842.02 APPROVAL. PAINT COMPOSITION Revise the following in the table:  Replace the 2.0ΔE* values in the table with 4.0ΔE* for both Yellow and White Paint on both the Daytime and Nighttime Color Spectrophotometer.						
<b>SECTION: REVISION:</b>	DIVISION 800 MATERIAL DETAILS Add the following section in Division 800  <b>SECTION 846 – DURABLE WATERBORNE PAINT</b>  <b>846.01 DESCRIPTION.</b> This section covers quick-drying durable waterborne pavement striping paint for permanent applications. The paint shall be ready-mixed, one-component, 100% acrylic waterborne striping paint suitable for application on such traffic-bearing surfaces as Portland cement concrete, bituminous cement concrete, asphalt, tar, and previously painted areas of these surfaces.  <b>846.02 Approval.</b> Select materials that conform to the composition requirements below. Provide independent analysis data and certification for each formulation stating the total concentration of each heavy metal present, the test method used for each determination, and compliance to 40 CFR 261 for leachable heavy metals content. Submit initial samples for approval before beginning striping						



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operations. The initial sample may be sent from the manufacture of the paint. The Department will randomly sample and evaluate the paint each week that the striping operations are in progress.

The non-volatile portion of the vehicle shall be composed of a 100% acrylic polymer as determined by infrared spectral analysis. The acrylic resin used shall be a 100% cross-linking acrylic as evidenced by infrared peaks at wavelengths 1568, 1624, and 1672 cm-1 with intensities equal to those produced by an acrylic resin known to be 100% cross-linking.

PAINT COMPOSITION		
Property and Test Method	Yellow	White
Daytime Color (CIELAB) Spectrophotometer using illuminant D65 at 45° illumination and 0° viewing with a 2° observer	L* 81.76 a* 19.79 b* 89.89 Maximum allowable variation 4.0ΔE*	L* 93.51 a* -1.01 b* 0.70 Maximum allowable variation 4.0ΔE*
Nighttime Color (CIELAB) Spectrophotometer using illuminant A at 45° illumination and 0° viewing with a 2° observer	L* 86.90 a* 24.80 b* 95.45 Maximum allowable variation 4.0ΔE*	L* 93.45 a* -0.79 b* 0.43 Maximum allowable variation 4.0ΔE*
Heavy Metals Content	Comply with 40 CFR 261	Comply with 40 CFR 261
Titanium Dioxide ASTM D 4764	NA	10% by weight of pigment min.
VOC ASTM D 2369 and D 4017	1.25 lb/gal max.	1.25 lb /gal max.
Contrast Ratio (at 15 mils wft)	0.97	0.99

**846.02.01 Manufacturers Certification.** Provide a certification of analysis for each lot of traffic paint produced stating conformance to the requirements of this section. Report the formulation identification, traffic paint trade name, color, date of manufacturer, total quantity of lot produced, actual quantity of traffic paint represented, sampling method utilized to obtain the samples, and data for each sample tested to represent each lot produced.

**846.03 ACCEPTANCE PROCEDURES FOR NON-SPECIFICATION DURABLE WATERBORNE PAVEMENT STRIPING PAINT.** When non-specification paint is inadvertently incorporated into the work the Department will accept the material with a reduction in pay. The percentage deduction is cumulative based on its compositional properties, but will not exceed 60 percent. The Department will calculate the payment reduction on the unit bid price for the routes where the non-specification paint was used.

DURABLE WATERBORNE PAVEMENT STRIPING PAINT REDUCTION SCHEDULE						
Non-conforming Property	Resin	Color	Contrast	TiO <sub>2</sub>	VOC	Heavy Metals Content
Reduction Rate	60%	10%	10%	10%	60%	60%

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<b>APPENDIX A:</b> <b>PART:</b> <b>REVISION:</b>	TABLUTION OF CONSTRUCTION TOLERANCES. 601.03.03 Replace with the following:  Concrete accuracy of individual ingredient material for each batch. ± 2.0% for aggregates ± 1.0% for water ± 1.0% for cement in batches of 4 cubic yards or greater ± 1.0% for total cementitious materials in batches of 4 cubic yards or greater 0.0% to + 4.0% for cement in batches less than 4 cubic yards 0.0% to + 4.0% for total cementitious materials in batches less than 4 cubic yards ± 3.0% for admixtures
<b>APPENDIX A:</b> <b>PART:</b> <b>REVISION:</b>	TABLUTION OF CONSTRUCTION TOLERANCES. 601.03.03 C) 2) Delete

## **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 or flip disk/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) Allow direct wiring for operation of the sign or arrow board from an external power source when desired.
- 7) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
- 8) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
- 9) 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.
- 10) 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.

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- 11) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
- 12) Provide a photocell control to provide automatic dimming.
- 13) Allow an on-off flashing sequence at an adjustable rate.
- 14) Provide a sight to aim the message.
- 15) Provide a LED display color of approximately 590 nm amber.
- 16) Provide a controller that is password protected.
- 17) Provide a security device that prevents unauthorized individuals from accessing the controller.
- 18) 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 Requirements for Flip-Disc Type Signs.** Flip-disc type signs will have the following additional requirements:

- 1) Disc faces are fluorescent yellow on one side, and flat black on the reverse.
- 2) Discs are at least 3.5 square inches with a minimum character size of 5 discs horizontally by 7 discs vertically.
- 3) Discs are designed to operate without lubrication for at least 200 million operations.
- 4) Line change speed of 600 milliseconds or less.
- 5) When power is lost, the sign automatically becomes blank or displays a preprogrammed default message.

#### **2.4 Power.**

- 1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. 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.
- 2) Diesel Power Source. Ensure the following is provided for:
  - a) At least 24 spare bulbs available on the project for quick replacement of burned out bulbs.
  - b) Black light at both top and bottom of each line to illuminate discs for visibility at night or under adverse weather conditions, for flip disk signs.

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- c) Diesel generator and electric start assembly, including batteries and a fuel capacity adequate to provide at least 72 hours continuous operation without refueling.
  - d) Fuel gage.
  - e) Provide all other specific features, such as bulb size, protection from sun glare, and shock protection for electronics and bulbs, to the satisfaction of the Engineer.

**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. Unless the Contract specifies flip-disk signs, use Class I signs on interstates and parkways.

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 or disk.

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 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

January 5, 2010

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### **SPECIAL NOTE FOR ALUMINUM AND STEEL STRUCTURAL PLATE BOX CULVERTS**

This Special Note will apply when indicated on the plans or in the proposal. Section references herein are to the Department's 2008 Standard Specifications for Road and Bridge Construction.

**1.0 DESCRIPTION.** Furnish and install either an aluminum or a steel structural plate box culvert as the Contract specifies.

#### **2.0 MATERIALS.**

**2.1 Structure.** These structures consist of prefabricated sections assembled and erected at the site. Prefabricated sections consist of corrugated aluminum or steel plates, as the Contract specifies, which have been factory shaped, punched, and coated when required. The Department will not permit field modification except for tapping saddles or other devices to permit passage of other conduits or utilities through the structure. Furnish and install all auxiliary items such as ribs, wales, stiffeners, footing pads, etc. that the design requires. Furnish and install endwalls and toewalls when the plans require them. When endwalls are required, construct full height wing sections. Do not field bevel wing sections.

Before beginning erection, furnish to the Engineer applicable shop drawings, erection layouts, and manufacturer's brochures. The Department will accept plates and accessories by certificate of compliance from the manufacturer.

**2.1.1 Aluminum Structure.** Obtain the aluminum structural plate box culvert, and aluminum endwalls or toewalls when required, from either Contech Construction Products or Lane Metal Products.

The Department will accept comparable aluminum structures produced by other companies when the Engineer approves. For such approval, submit sufficient data and design calculations to show that the proposed structures are equal in all respects to the Contech product and also include evidence of actual installations now in service that are performing satisfactorily.

Use aluminum accessories and plates, of the plan specified thickness, that conform to AASHTO M 219 or ASTM B 308 as applicable.

Where non-aluminum utilities are passed through, insulate with an aluminastic compound or approved equal, to prevent bi-metallic contact.

**2.1.2 Steel Structure.** Use either (1) Contech Construction Products' Multi-Plate Steel Box Culvert; or (2) Lane Metal Products Company's Low Profile Box Culvert.

The Department will accept comparable steel structures produced by other companies when the Engineer approves. For such approval, submit sufficient data and design calculations to show that the proposed structures are equal in all respects to those specified above and also include evidence of actual installations now in service that are performing satisfactorily.

Use steel accessories and plates, of the plan specified thickness, that conform to AASHTO M 167 for galvanized steel.

**2.2 Asphalt Coating.** On all steel drainage structures, except those installed as railroad tunnels, cattle underpasses, bicycle or pedestrian underpasses, or similar dry conditions, apply an asphalt coating conforming to Subsection 806.06.

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**2.3 Bedding Material.** Use sand that conforms to Subsection 804.08.

**2.4 Backfill Material.** Select any of the following alternates and obtain the Engineers approval.

- 1) well graded or uniformly graded bank or creek gravel, crushed or uncrushed, up to 3 inches maximum size;
- 2) well graded or uniformly graded natural or crushed sand;
- 3) finely shot limestone or sandstone providing no individual fragment is larger than 3 inches and the material contains no more than 5 percent dirt and/or shale, as determined by visual inspection by the Engineer;
- 4) crushed stone or crushed slag up to 3 inches maximum size (except DGA or Size No. 610);
- 5) other locally available materials meeting the approval of the Engineer (local soils conforming to soil classifications A-1 or A-3 from AASHTO M 145 will be acceptable). Do not use plastic soils, or materials containing significant amounts of nondurable shale ( $SDI < 95$  by KM 64-513); or
- 6) flowable fill conforming to Subsection 601.03.03, B), 5).

**2.5 Foundation Material.** Use material capable of supporting the imposed loads due to backfill weight and footing pressures of 2 tons per square foot.

### **3.0 CONSTRUCTION.**

**3.1 Technical Representative.** Provide a technical representative from the structure producer to advise at the start of the project. Ensure the technical representative is available thereafter to assist in the event problems or special circumstances arise. Technical assistance shall be provided at no additional cost to the Department.

**3.2 Site Preparation.** Perform structure excavation according to Section 603, except as modified herein.

On structures with footing pads, excavate trenches 3 inches below the elevation shown on the plans, and level the bottom of the trench with 3 inches of bedding material before placing the footing pads.

On structures with a full metal invert, excavate the entire area covered by the invert plates to a point 3 inches below grade and level with 3 inches of bedding material before placing the invert plates.

Take soundings for foundation design at the inlet and outlet of each culvert and at intervals no greater than 20 feet along the grade line of the bottom of the culvert, to a depth of one foot. Make soundings on the centerline and at each edge of the culvert. Where ledge rock, gravel, hardpan, or other unyielding material is encountered or known to exist within the limits stated, perform excavation in the area under the invert plates or footing pads. Extend the additional excavation to a depth of  $0.042 H$  below the bottom of the metal plates, where  $H$  is the height of fill above the top of the culvert. However, regardless of the height of fill, the Department will require the additional depth to be a minimum of one foot and will not require it to be more than  $0.75 H_c$ , where  $H_c$  is the total height of the culvert.

Backfill the additional excavation with an earth cushion of firmly compacted fine soils in layers of 6 inches or less, prior to placing the 3 inches sand bedding layer.

Excavate cross trenches as necessary to place metal toewalls when the plans require them.

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Excavate a minimum width of the outside dimension of the box culvert including footing pads or invert plates plus 6 inches on each side.

Proper bedding preparation is critical for satisfactory performance of the box culvert. Place the bed for footing pads or invert plates to uniform lines and grade to avoid distortions and undesirable stresses in the structure.

Construct concrete footings or bottom slabs in accordance with the plans and standard specifications.

**3.3 Installation.** Erect the culvert, and endwalls when required, in strict accordance with the manufacturer's recommendations. The Department will allow offsite assembly of the structure, provided prior approval is obtained, and assembly is in accordance with the manufacturer's instructions. Align plates circumferentially to avoid permanent distortion from the specified shape. Ensure the width and height of the completed structure is within 2 percent of the specified dimensions or 2 inches, whichever is greater.

Tighten bolts in the erected structure according to the manufacturer's recommendations, with good seam laps, while in proper shape, using nuts and bolts the manufacturer supplies. Construct concrete footings and headwalls in accordance with the plans.

Install the ribs, wales, and toewalls when required, according to the manufacturer's recommendations.

In side-by-side installations, install the box culverts with footing pads or invert plates of each culvert no closer than 2 feet to the footing pads or invert plates of the adjacent culvert, unless the plans show otherwise. Excavate the entire volume between the culverts and place backfill.

**3.4 Backfill.** Proper placement and compaction of backfill are essential to obtain maximum strength and stability of the finished structure. Use equipment and construction procedures to prevent excessive structure distortion from occurring. The manufacturer of the structure will specify the magnitude of allowable shape changes during backfill. Monitor the shape of the structure to control distortion until all backfilling operations are completed.

On structures with concrete footing pads, backfill the trench for the pads to the flowline inside the culvert before outside backfilling begins.

Place granular backfill material in horizontal layers not exceeding 6 inches loose depth, and bring up uniformly on both sides of the structure. Compact each layer to the same level on all sides before proceeding to the next lift. Do not use compaction equipment or methods that produce earth pressures that cause distortion or damage. Place material on top of the structure at right angles to the centerline of the structure. Compact each layer of backfill to a density of at least 95 percent of the maximum density according to KM 64-511. The Department will determine the in-place density using nuclear gages. The Engineer may waive density testing when not feasible due to the nature of the material. When using flowable fill, place according to Subsection 601.03.09, C).

If the structure is not installed in a full depth trench, use backfill material for embankment adjacent to the structure for a distance equal to the span width on each side of the box culvert and to a height of 2 feet or subgrade elevation, whichever is lower, above the structure.

**3.5 Construction Loads.** Do not allow construction loads in excess of HS-20 vehicles to cross the completed box culvert unless it is internally braced. Design the support for such bracing so as not to impair the structural integrity or severely interfere with the hydraulics of the box culvert or its invert. Have the culvert manufacturer review the details of the bracing and submit them to the Engineer for approval.



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**3.6 Headwalls.** Construct concrete headwalls, when required, according to the plans. Apply masonry coating to exposed surfaces of the headwalls when required by Subsection 601.03.18, B). When using an aluminum structure, coat aluminum surfaces that will be in contact with concrete with alumilastic compound or an approved equal prior to placing concrete.

**4.0 MEASUREMENT.**

**4.1 Structure Excavation.** The Department will measure Structure Excavation as Structure Excavation, Common or Structure Excavation, Solid Rock according to Subsection 206.04.03, except on the sides of the structure the volume will be bounded by vertical planes 6 inches outside the footing pads or invert plates and parallel thereto.

The Department will measure material necessary for backfill in excess of the material excavated as Borrow Excavation, Roadway Excavation, or Embankment-in-Place, as applicable.

The Department will measure granular material used to replace excavated material that is unsuitable for backfill as Borrow Excavation, Roadway Excavation, or Embankment-in-Place. The Department will not measure earthwork for payment when the bid item is Embankment-in-Place unless the unsuitable material is wasted.

The Department will not measure flowable fill for payment and will consider it incidental to the structure.

The Department will not measure bedding for payment and will consider it incidental to the structure.

**4.2 Aluminum Structural Plate Box Culvert.** The Department will measure the quantity in linear feet at each location. The Department will consider the number of linear feet in each installation to be the plan length, increased or decreased by authorized adjustments. The Department will not measure ribs, wales, stiffeners, footing pads, toewalls, endwalls, internal braces, or asphalt coating for payment and will consider them incidental to the structure.

**4.3 Steel Structural Plate Box Culvert.** See 4.2.

**4.4 Class A Concrete.** The Department will measure Class A Concrete in footings and headwalls according to Subsection 601.04.

**4.5 Reinforcement.** The Department will measure Steel Reinforcement in the footings and headwalls according to Subsection 602.04.

**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>
20694EN	Aluminum Structural Plate Box Culvert	Linear Foot
20695EN	Steel Structural Plate Box Culvert	Linear Foot
----	Structure Excavation, as classified	See Section 603.05
----	Concrete, Class	See Section 601.05
----	Steel Reinforcement	See Section 602.05

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

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### **SPECIAL NOTE FOR EXCAVATION AND EMBANKMENT**

This Special Note replaces Sections 204 and 206 of the Department's 2008 Standard Specifications for Road and Bridge Construction and will apply where indicated on the plans or in the proposal. Section references herein are to the Department's 2008 Standard Specifications for Road and Bridge Construction.

**1.0 DESCRIPTION.** Remove and dispose of all materials taken from within limits of the work contracted, meaning the calculated material lying between the original groundline and the excavation limits established or approved by the Engineer as shown on the final cross sections, and form embankments with materials from sources specified in the Plans or from other approved sources.

**2.0 MATERIALS AND EQUIPMENT.** Use water conforming to Section 803.

### **3.0 CONSTRUCTION.**

**3.1 Excavation.** Excavate for cuts and roadbeds, embankment foundation benches, embankment subgrades, under-cutting subgrades in cut sections, shoulders, slopes, ditches, waterways, intersections, approaches, balance excavation, inlet and outlet ditches, and channel changes, all as specified in the Contract.

Remove and dispose of miscellaneous structures from within the limits of the typical section according to Section 203.

Protect and preserve all existing culverts, pipelines, conduits, subdrains, or parts thereof that may continue to be used without any change. Repair or replace any culvert, pipeline, conduit, or subdrain damaged from operations or negligence during the life of the Contract.

During construction, ensure that the roadway is well drained at all times.

**3.1.1 Classification.** Without regard to the materials encountered, all roadway and drainage excavation is unclassified and the Department will consider it Roadway Excavation. Any reference to rock, earth, or any other material on the Plans or cross sections, whether in numbers, words, letters, or lines, is solely for the Department's information and is not an indication of classified excavation or the quantity of either rock, earth, or any other material involved. The bidder must draw his own conclusions as to the conditions to be encountered, including any shrinkage and swell of materials. The Department does not give any guarantee as to the accuracy of the data and will not consider any claim for additional compensation when the materials encountered are not in accord with the classification shown.

**3.1.2 Slopes.** Do not remove or loosen any material outside of the required slopes. Leave all rock cut slopes with a uniform surface, and remove all loose or overhanging rock. Do not gouge or dig holes in back slopes or in embankment slopes.

The Engineer may vary the slopes in cuts during construction, depending upon the material encountered in excavation to secure sufficient material for the formation of embankment and shoulders, to prevent landslides, to improve sight distance, or for any other reasons widening or variations are deemed to be to the best advantage of the work. When making a cut on any section of the roadway in any material that may slide, excavate to the slope lines as specified in the Plans or as the Engineer directs. Do not form vertical slopes during the

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process of excavation of such cuts, except in stage construction when leaving material in cuts for future shoulder construction.

- 3.1.3 Serrated Slopes.** When the Plans designate locations to construct serrated slopes and when soft rock or shale are encountered at the designated locations, excavate these materials by bulldozing or ripping, without drilling and blasting, in a manner that serrates the cut faces to a stepped pattern.

Round all soil overburden and talus material above the serrated slopes to blend with the original ground. Construct the top half step tread of a serrated slope just below the surface where the soil overburden contacts the soft rock or shale and continue the steps to the bottom of the cut slope, unless hard rock or hard shale formations are encountered which indicate that the lower limits of the rock disintegration zone have been reached. When hard rock or hard shale formations which must be blasted are encountered within the cuts being serrated, end the steps of the serrated slope by blending them into the hard rock or shale. Construct the step risers in the serrated slopes to the height specified in the Plans with the approximate width of the step treads being the height of the risers multiplied by the designated cut slope ratio. Make the midpoints of treads of the steps coincide approximately with the staked slope lines. Blend the first and last steps of a serrated slope into the staked slope line. Construct the first and last steps of a serrated slope to a width of approximately one-half the normal step tread width. Construct the step treads approximately level rather than parallel to the ditch line grades. When the steps extend throughout the length of a cut, round the ends of the steps and blend them into the adjacent ground.

The Engineer will not require thorough final dressing of the serrated slopes. However, remove large pieces of rock or other dangerous material which might fall from the steps and create safety hazards or maintenance problems. Seed and protect the serrated slopes according to the Plans and Section 212.

- 3.1.4 Presplitting.** Presplit all rock and shale formations within the roadway excavation limits that are conducive to excavation by drilling and blasting at the designated slope lines. Perform the presplitting before blasting and excavating the interior portion of the specified cross section at any location.

Perform presplitting to obtain smooth faces in the rock and shale formations. Develop presplit faces that are free of all loose or crushed pieces and do not deviate more than 6 inches inwardly from the designated slope lines or offset drill holes, nor more than one foot outwardly, except where seams, broken formations, or earth pockets may cause unavoidable irregularities. The Engineer may stop the presplitting when he determines that materials have become unsuitable for presplitting. The Department will measure for payment material lying outside the typical section that must be removed due to seams, broken formations, or earth pockets, including any earth overburden removed with this material.

- 3.1.5 Ditches.** Ditches include channel changes, inlet and outlet ditches, side ditches, surface ditches, wing ditches, and such other required ditches.

Construct side ditches draining from cuts toward embankments to avoid erosion damage to embankments by directing water coming from cuts away from fills.

Do not place material removed in cleaning or opening of ditches on cut

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slopes.

Excavate special ditches and channel changes before constructing adjacent embankment areas.

Remove all debris from ditches before requesting formal acceptance.

**3.1.6 Use of Excavated Materials.** Use all suitable excavated material in the formation of embankments, subgrade, or shoulders; as backfill for structures; or for other purposes specified in the Contract.

Remove and dispose of all sod and soft or spongy material. Do not use such materials in the construction of the grade, except as provided in Part 3.2 of this note.

Take ownership and dispose of any coal excavated from the project within the typical section, or as directed. Do not use coal in embankments except in small quantities and then only when thoroughly mixed with other materials.

Do not waste excavated material without permission. When approved, waste excess material adjacent to the embankment or incorporate it in the normal embankment construction within the right-of-way limits. Do not perform irregular or partial widening of embankments. Do not waste excess material between cut slopes and the right-of-way limits, except for the purpose of filling depressions, gullies, and other cavities; and, when so wasted, shape the material to conform with the adjacent ground.

**A) Channel Lining, Class IV.** Prepare broken stone from formations consisting primarily of limestone, or if specified in the Plans, durable sandstone or durable shale (SDI equal to or greater than 95 according to KM 64-513) that are encountered in roadway excavation or obtained from borrow excavation.

Provide stone so that at least 80 percent, by volume, of individual stones range in size from 1/4 to 1 1/2 cubic foot. Use smaller sized stones for filling voids in the upper surface and dressing to the proper slope. The Engineer will accept the size and gradation of the material based on visual inspection. The Engineer may allow material not conforming to the specified size and gradation when it is acceptable for the intended use.

Shape ditches and channels as specified to receive the channel lining. Unless solid rock is encountered, begin the channel lining in a trench 2 feet below the natural ground or 2 feet below the channel flowline when the flowline is not lined. Where encountering solid rock, end the slope protection at the solid rock line.

Construct Channel Lining, Class IV to the minimum thickness specified in the Plans. Place the stone in a manner to produce a surface not varying more than 6 inches from a true plane.

**B) Spreading Stockpiled Topsoil.** If the Contract includes Spreading Stockpiled Topsoil as a bid item, or when otherwise specified in the Contract, salvage topsoil from within the limits of the slope lines and store it in stockpiles. Before removing the topsoil, clear the areas of all weeds, brush, stumps, stones, and other debris. Remove the topsoil only from areas and to depths specified in the Plans or as the Engineer directs. Avoid mixing subsoil or other unsuitable material with the topsoil. Place sod removed from embankment areas according to Subsection 206.03 in the topsoil stockpiles. Place the stockpiles along the project at approved locations. Neatly dress each stockpile, when completed. Perform

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temporary or permanent seeding on the stockpiles.

When Spreading Stockpiled Topsoil is a bid item, the Department will allow the topsoil to be spread directly on the areas designated to receive the topsoil, without stockpiling, provided that seeding and protection operations are ready to begin.

**3.1.7 Roadbed.** In addition to the limits of the roadbed as defined in Subsection 101.03, extend the roadway excavation to the ditch lines in cuts. Conduct roadway excavation operations to make available a sufficient quantity of selected materials to complete the roadbed.

Remove all rock between ditch lines to a depth below the required grade as specified in the Plans or as staked. Leave the final surface of the rock to provide complete drainage. Construct the refill over this surface with select material having no stone or spalls larger than 4 inches. Place all refill in lifts not exceeding one foot in depth, loose measurement, and compact according to Part 3.2 of this note. The Engineer will make no allowance for excavation and refill material to a greater depth below the required grade than as specified in the Plans or as staked.

When encountering unsuitable material at subgrade elevation, remove the material to the depths specified in the Plans or as directed. Dry and use material that is unstable due to excessive moisture but otherwise suitable. Waste the material or use the material as refill or in embankments as the Engineer directs. Refill with suitable material.

**A) Rock Roadbed.** Conduct roadway blasting and excavation operations to make available a sufficient quantity of rock to complete the roadbed.

Prepare rock from formations consisting primarily of limestone, durable sandstone, or durable shale (SDI equal to or greater than 95 according to KM 64-513) that are encountered in the roadway excavation or that are obtained from borrow excavation. Do not use rock fragments exceeding one foot.

Excavate all cuts to a minimum of 2 feet below the final subgrade elevation and refill with the broken stone in 2 lifts, each approximately one foot thick. Leave the excavated surface to provide complete drainage. If excavation is deeper than 2 feet below subgrade, construct the top 2 feet in 2 lifts, each approximately one foot thick and the remaining in lifts not exceeding one foot using rock conforming to this section.

Construct rock roadbed from ditch line to ditch line in cuts, from shoulder to shoulder in fills, and throughout the entire project including mainline, ramps, and approach roads.

Perform all handling, stockpiling, or hauling manipulations, including overhauling, necessary to provide for the proper distribution of the broken stone.

In all instances, dump, spread, and smooth each one-foot lift, and compact each lift by vibratory rollers weighing at least 5 tons to minimize voids and bridging.

**B) Chemically Stabilized Roadbed.** Construct according to Section 208.

## **3.2 Embankment.**

**3.2.1 Embankment Foundations.** Remove sod from all embankment areas to a

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depth of approximately 3 inches. The Engineer will not require the removal of sod when constructing embankments over marshy areas.

Remove unsuitable material, including frozen material, encountered in embankment areas before placing any embankment material thereon.

When the height of the embankment, at subgrade elevation, is to be greater than 3 feet above existing concrete pavement, either break the pavement until no fragments have a dimension greater than 3 feet or remove the pavement. When the height of the embankment, at subgrade elevation, is to be 3 feet or less above existing concrete pavement, remove the pavement.

When placing embankment above existing asphalt pavement, break up to destroy all cleavage planes or remove as the Engineer directs.

Cut benches with horizontal and vertical faces into the original ground of embankment foundations as required. When practical, benches should be into rock. Compact the horizontal face. Provide subsurface drainage as specified in the Plans or as the Engineer directs.

When the Contract designates original material as unsuitable for the embankment foundation, the Department will designate areas of Special Excavation and/or treatment and will give instructions about the removal and disposal of unsuitable foundation material in the Plans.

When a bid item of special excavation has not been included in the Contract and the original ground is specified in the Plans as suitable to serve as the embankment foundation but the Engineer subsequently determines the material is unsuitable to remain in its original position, excavate and dispose of the unsuitable foundation material as directed. Incorporate the excavated material into embankments when manipulations such as spreading thin layers or drying the material make it acceptable for use as embankment-in-place. When excavated material cannot be used in embankments, waste the material.

**3.2.2 Placing and Compacting.** Use only acceptable materials from sources permitted in the Contract. Do not place frozen material, stumps, logs, roots, sod, or other perishable materials in any embankment. Do not place any stone or masonry fragment greater than 4 inches in any dimension within one foot of the finished subgrade elevation, unless rock roadbed is specified.

The Department may allow concrete rubble, without protruding reinforcement, to be placed in embankment provided that no fragment is larger than one foot in any dimension or is placed within 2 feet of the subgrade.

When crossing marshy or otherwise unstable areas, the Department may allow the first lift to exceed one-foot loose depth. Use rock or granular material in the first lift, when available, and construct by placing material behind the leading edge of the layer and blading into place to avoid unnecessary disturbance to the original ground.

Drain, clean out, and fill ponds lying within the staked construction limits.

Construct the upper one foot of the embankment with selected material placed in lifts not exceeding one foot loose thickness.

When rock roadbed is specified, construct the upper 2 feet of the embankment according to Part 3.1.7 of this note.

**A) Embankments of Earth, Friable Sandstone, Weathered Rock, Waste Crushed Aggregate, Bank Gravel, Creek Gravel, or Similar Materials.** Construct in lifts not exceeding one foot in thickness, loose depth, to the full width of the cross section, and compact the material.

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Shape the upper surface of the embankment to provide complete drainage of surface water at all times. Do not form ruts.

- B) Embankments Principally of Unweathered Limestone, Durable Shale (SDI equal to or greater than 95 according to KM 64-513), or Durable Sandstone.** Construct in lifts not exceeding 3 feet. Ensure that the maximum dimensions of boulders or large rocks placed in the embankment do not exceed 3 feet vertically and 4.5 feet horizontally. Place rocks having any dimension greater than 2 feet at least 2 feet below subgrade elevation. Do not dump rock into final position. Distribute the rock to minimize voids, pockets, and bridging. The Engineer will not require rolling in the construction of rock embankment. Do not construct the rock embankment to an elevation higher than one foot below subgrade elevation.
- C) Embankment of Rock/Shale/Soil Combination.** Construct in lifts not exceeding one foot in thickness; however, when the thickness of the rock exceeds one foot, the Department may allow the thickness of the embankment lifts to increase, as necessary, due to the nature of the material, up to 2 feet. Apply a sufficient amount of water to induce slaking when mixtures contain 50 percent or more non-durable shale. Do not dump the mixture into final position. Distribute the mixture in a manner that minimizes voids, pockets, and bridging.
- D) Embankments Principally of Non-Durable Shale (SDI less than 95 according to KM 64-513).** Remove or break down rock fragments or limestone slabs having thickness greater than 4 inches or having any dimension greater than 1 1/2 feet before incorporating them into the lift. Construct in loose lifts not exceeding 8 inches in thickness. Apply water to accelerate slaking. Uniformly incorporate the water throughout the lift using a multiple gang disk with a minimum disk diameter of 2 feet or other suitable equipment the Engineer approves. Compact with 30-ton static tamping foot rollers in conjunction with vibratory tamping foot rollers that produce a minimum compactive effort of 27 tons and direct hauling equipment over the full width of the lift to aid in compaction. When questions arise regarding the durability of shale, use KM 64-514 to estimate the durability of the material in the field.

Compact the embankment foundations and embankment to a density of at least 95 percent of maximum density as determined according to KM 64-511. The Engineer will check density according to KM 64-412.

During compaction, maintain the moisture content of embankment or subgrade material within  $\pm 2$  percent of the optimum moisture content as determined according to KM 64-511.

Compact each lift as required before depositing material for the next lift. Provide equipment that will satisfy the density requirements at all times. Run the hauling equipment, as much as possible, along the full width of the cross section.

**3.2.3 Embankment Adjacent to Structures.** Construct according to Subsection 603.03.04 for backfill.

**3.3 Construction Tolerances.** Make every reasonable effort to construct the project uniformly within the following allowable tolerances and in a manner that will minimize the field measurements and computations required to determine if the work is satisfactory.

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The Department will allow the following tolerances before making payment for any decreases in the quantity or before requiring the rework of the constructed item:

- 1) Do not deviate the distance from centerline to the ditch lines in cuts and the shoulder lines in fills more than one foot from the dimension specified in the Plans. Ensure that the total width of the roadbed is not deficient by more than one foot at any location.
- 2) Ensure that the sloped surfaces between the ditch lines or shoulder lines and the original ground are not inside the specified slope limits more than 6 inches or outside the specified slope limits more than one foot, both measured horizontally.
- 3) Excavate cut benches to within one foot above or below the bench elevation specified in the Plans or established by the Engineer.
- 4) The Department will not make payment for any earthwork performed outside the limits specified by the neat lines of the cross sections on the Plans or by the Engineer. Do not remove or place any extra material more than one foot outside of these limits without permission, except as provided in Parts 3.1.4 and 3.2 of this note.
- 5) On grade and drain projects where surfacing is not included, complete the subgrade to within  $\pm 0.1$  foot of the designated grade at the time of final acceptance, except that when rock roadbed is specified, complete it to within  $\pm 0.2$  foot.
- 6) Ensure that all subgrades being prepared for base or surface courses, except traffic bound courses, are within  $\pm 1/2$  inch of the specified crown section, except that when rock roadbed is specified, complete it to within  $\pm 0.2$  foot. Uniformly construct these subgrades so the subsequent base and surface courses can be constructed within their specified tolerances.

**3.4 Landslides.** When directed, remove and dispose of all landslides. The Department will measure landslides in place, by the cross section method, before removal of material. Obtain the Engineer's approval for use of slide material.

**3.5 Disposal of Wasted Material.** Obtain approved sites for wasting material off the right-of-way. Place material to avoid an unsightly appearance. Place all waste to avoid the obstruction of drainage. Seed and protect the wasted material and all temporary haul roads.

Submit for approval drawings of proposed waste areas, showing the configuration of the original ground and the anticipated configuration of the area upon completion of the waste operation; any preparatory work such as benching; provisions for surface and subsurface drainage of the area after wasting is completed; and any other necessary information. The Department will pay for the geotechnical investigation and analysis of the proposed waste area when one is requested by the Engineer. Ensure all work is performed by a pre-qualified geotechnical consultant and according to the Department's Geotechnical Manual.

Furnish cross sections and hydraulic computations for waste area sites situated in the flood plain of any stream. For these computations, define this flood plain as that area required to pass the 100 year flood. Indicate with the computations the effect that the waste site will have on both the design flood and the 100 year flood.

Furnish copies of a written agreement with the property owner, approval of the owner(s) of utilities of any nature existing within the proposed waste area, and approvals from all applicable regulatory agencies including the Natural Resources and Environmental Protection Cabinet, US Forest Service, US Army Corp of Engineers, US



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Fish and Wildlife, Kentucky Division of Water, and Planning and Zoning Commissions.

When encountering unanticipated waste material resulting from landslides or approved slope changes, waste it within the right-of-way at sites designated by the Engineer, or dispose of it off the right-of-way at sites acquired or approved by the Department.

#### **4.0 MEASUREMENT.**

**4.1 Payment for Design Quantities.** Unless the Contract provides for payment based on field measurements of material excavated, the Department will not measure Excavation or Embankment quantities but will make final payment at the Contract unit price for the design quantity specified within the neat lines of the cross sections on the Plans, increased or decreased by authorized adjustments.

The Department will not consider any quantity specified in the Plans for contingencies to be part of the design quantity. The Department will include only the portion of the contingency quantity actually used, as determined by the Engineer's measurements.

**4.2 Authorized Adjustments.** The Department will only make adjustments to the design quantities of Excavation or Embankment authorized by the Engineer for the following reasons:

- 1) Changes in the quantity of work due to benching, undercutting, changing slopes or grades, removing slides, and any other required procedures.
- 2) Decreases in the quantity because of acceptable work not conforming to established tolerances.
- 3) Corrections of major errors on the Plans. Major errors are defined as individual mistakes of 5 percent or more in the quantity of earthwork between 2 consecutive cross sections, for omissions, duplications, or other errors in the survey or on the Plans, but not for minor discrepancies in the plotting of cross sections, in the planimetry of cross sections, and in the resulting computation of the volume of earthwork. When errors in the lines or grades specified in the Plans cause major errors in earthwork quantities, the Department will correct the earthwork quantities throughout the entire span of the errors. The Department will not adjust earthwork quantities when errors in the lines or grades do not cause major errors in the earthwork quantities.
- 4) Arithmetical mistakes.

**4.3 Serrated Slopes.** The Department will not measure this work for payment and will consider it incidental to either Excavation or Embankment, as applicable.

The Department will not measure for payment any breakage of the soft rock or other material outside the staked slope line.

**4.4 Presplitting.** The Department will not measure this work for payment and will consider it incidental to Excavation. However, if the Engineer directs in writing slope changes, then the Department will pay for the second presplitting operation as Extra Work.

The Department will not measure for payment any extra material excavated because of the drill holes being offset outside the designated slope lines.

The Department will not measure for payment any material including any earth overburden necessary to be removed due to the Contractor's faulty blasting practices.

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**4.5 Rock Roadbed.** The Department will measure the quantity in cubic yards as Embankment. The Department will not measure any special work necessary to perform rock roadbed construction for payment and will consider it incidental to the Embankment bid item.

The Department will measure the removal of unsuitable material as Excavation. The Department will measure any additional material necessary for refill as Embankment, at its origin. The Department will not measure for payment rock refill exceeding 2 feet. When the material is removed from the roadbed and wasted without the Engineer's permission, the Department will not measure for payment any required refill material.

**4.6 Landslides.** The Department will measure the removal quantity in cubic yards as Excavation and will make equal measurement as Embankment when placed outside the plan's neat lines or wasted. When placed within the neat lines, the Department will consider the equal measurement of Embankment incidental to the Embankment design quantity. When the material is placed outside the plan's neat lines or wasted without the Engineer's permission, the Department will not consider the equal measurement of Embankment for payment.

The Department will not measure for payment the removal and disposal of landslides resulting from faulty operations.

Whenever a landslide extends beyond the right-of-way in wooded areas, and the Engineer directs trees and stumps be removed, the Department will measure for payment clearing of the additional area under Clearing and Grubbing or Removing Trees and Stumps, as provided in the original Contract.

**4.7 Ditches.** When Ditching or Ditching and Shouldering are listed as a bid item, the Department will measure this according to Subsection 209.04. When Ditching or Ditching and Shouldering are not listed as a bid item, the Department will not measure this work for payment and will consider it incidental to either Excavation or Embankment, as applicable.

**4.8 Excavation.** The Department will measure the quantity in cubic yards based on design quantities with authorized adjustments. The Department will base the measurement of the Excavation quantities at locations where serrated slopes are constructed on the areas and volumes defined by the staked slope lines. The Department will not measure for payment any excavated material used for any purpose other than that the Plans specify or the Engineer approves.

When the Contract provides for payment based on field measurements of the material excavated, the Department will measure the excavation in its original position by taking cross sections before the work starts and after it is entirely completed. The Department will compute the volume by the average end-area method. The Department will include in its measurement all unavoidable slides and authorized excavation of any material below the subgrade.

Where material has been excavated beyond the slope line and wasted, without being authorized, the Department will measure the wasted material and deduct it from the excavated quantities.

In determining the amount of waste material to be deducted as the result of excavation beyond the slope lines set by the Engineer, and wasted, the Department will consider only that portion outside of one foot additional width of embankment on each side, widened uniformly. The Department will measure the volume and deduct it from the excavation quantities without regard to swell or shrinkage factors.

**4.9 Benches.** The Department will measure excavation of benches as Excavation

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and will make equal payment as Embankment.

**4.10 Embankment.** The Department will measure the quantity in cubic yards as the design quantity shown within the neat lines of the cross sections on the Plans, increased or decreased by authorized adjustments according to Part 4.2 of this note.

The Department will consider removing sod 3 inches or less in depth; removing and/or scarifying of existing pavements in embankment areas; and the addition of water to aid compaction incidental to Embankment.

When undercutting embankment foundations, regardless of whether the excavated material is used as embankment or is wasted, the Department will measure the removal of unsuitable materials as Excavation or Special Excavation.

When the Engineer directs that the excavated material be wasted, then the Department will measure the material used to replace the wasted material as the same quantity as the excavated volume, and will pay for the material as Embankment. When the excavated material is used in embankment, the Department will make no separate payment for the material necessary to replace the excavated material.

The Department will not measure borrow excavation used to construct the embankment for payment and will consider it incidental to the construction of Embankment.

**4.11 Special Excavation.** The Department will measure the quantity in cubic yards as the design quantity shown within the neat lines of the cross sections on the Plans, increased or decreased by authorized adjustments as specified in Parts 4.1 and 4.2 of this note.

The Department will not measure overhaul of material and will consider it incidental to Special Excavation.

**4.12 Waste.** The Department will consider acquiring a waste site, disposing of waste, and providing erosion control for the site and haul roads incidental to Excavation and Embankment.

If the waste material is due to authorized adjustments, the Department will measure the quantity of unanticipated waste resulting from the authorized adjustments in place before excavation; make provisions for a waste site; and measure erosion control work for payment according to Subsection 212.04. The Department will include the quantity of approved unanticipated waste under Embankment.

**4.13 Overhaul.** The Department will measure the quantity only for excavation and embankment added due to authorized adjustments. For all other excavation quantities, the Department will not measure this work for payment and will consider it incidental to either Excavation or Embankment, as applicable.

The Department will measure the quantity by the Cubic Yard Station. A Cubic Yard Station is the product of the volume of material hauled in cubic yards and the distance that the material is hauled, in excess of the 2,000 feet of free haul, in stations of 100 feet, as determined by the Mass Diagram Method or by analytical methods.

**4.14 Channel Lining, Class IV.** The Department will measure the quantity in cubic yards.

**4.15 Water.** The Department will not measure for payment water used to provide sufficient moisture for compaction.

**5.0 PAYMENT.** The Department will make payment for the completed and accepted

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quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
21554EN10Z	Excavation	Cubic Yard
----	Overhaul	Cubic Yard Station
02488	Channel Lining, Class IV	Cubic Yard
05998	Spreading Stockpiled Topsoil	Cubic Yard
21553EN10Z	Embankment	Cubic Yard
02204	Special Excavation	Cubic Yard

The Department will pay for Overhaul at 2 percent of the Contract unit price for both Excavation and Embankment for each Cubic Yard Station.

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

January 1, 2008

## **SPECIAL NOTE FOR ROCK BLASTING**

**1.0 DESCRIPTION.** This work consists of fracturing rock and constructing stable final rock cut faces using presplit blasting and production blasting techniques.

**2.0 MATERIALS.** Deliver, store, and use explosives according to the manufacturer's recommendations and applicable laws. Do not use explosives outside their recommended use date. Verify date of manufacture and provide copies of the technical data sheets (TDS) and material safety data sheets (MSDS) to the Engineer. Explosives and initiating devices include, but are not necessarily limited to, dynamite and other high explosives, slurries, water gels, emulsions, blasting agents, initiating explosives, detonators, blasting caps, and detonating cord.

**3.0 CONSTRUCTION.** Furnish copies or other proof of all-applicable permits and licenses. Comply with Federal, State, and local regulations on the purchase, transportation, storage, and use of explosive material. Regulations include but are not limited to the following:

- 1) KRS 351.310 through 351.9901.
- 2) 805 KAR 4:005 through 4:165
- 3) Applicable rules and regulations issued by the Office of Mine Safety and Licensing.
- 4) Safety and health. OSHA, 29 CFR Part 1926, Subpart U.
- 5) Storage, security, and accountability. Bureau of Alcohol, Tobacco, and Firearms (BATF), 27 CFR Part 181.
- 6) Shipment. DOT, 49 CFR Parts 171-179, 390-397.

**3.1 Blaster-in-Charge.** Designate in writing a blaster-in-charge and any proposed alternates for the position. Submit documentation showing the blaster-in-charge, and alternates, have a valid Kentucky blaster's license. Ensure the blaster-in-charge or approved alternate is present at all times during blasting operations.

**3.2 Blasting Plans.** Blasting plans and reports are for quality control and record keeping purposes. Blasting reports are to be signed by the blaster-in-charge or the alternate blaster-in-charge. The general review and acceptance of blasting plans does not relieve the Contractor of the responsibility whatsoever for conformance to regulations or for obtaining the required results.

**A) General Blasting Plan.** Submit a general blasting plan for acceptance at least 15 working days before drilling operations begin. Include, as a minimum, the following safety and procedural details:

- 1) Working procedures and safety precautions for storing, transporting, handling, detonating explosives. Include direction on pre and post blast audible procedures, methods of addressing misfires, and methods of addressing inclement weather, including lightning.
- 2) Proposed product selection for both dry and wet holes. Furnish Manufacturer's TDS and MSDS for all explosives, primers, initiators, and other blasting devices.
- 3) Proposed initiation and delay methods.

- 4) Proposed format for providing all the required information for the site specific blasting shot reports.

**B) Preblast Meeting.** Prior to drilling operations, conduct a preblast meeting to discuss safety and traffic control issues and any site specific conditions that will need to be addressed. Ensure, at a minimum, that the Engineer or lead inspector, Superintendent, blaster-in-charge, and all personnel involved in the blasting operation are present. Site specific conditions include blast techniques; communication procedures; contingency plans and equipment for dealing with errant blast material. The conditions of the General Blasting plan will be discussed at this meeting. Record all revisions and additions made to the blasting plan and obtain written concurrence by the blaster-in-charge. Provide a copy of the signed blast plan to the Engineer along with the sign in sheet from the preblast meeting.

**3.3 Preblast Condition Survey and Vibration Monitoring and Control.** Before blasting, arrange for a preblast condition survey of nearby buildings, structures, or utilities, within 500 feet of the blast or that could be at risk from blasting damage. Provide the Engineer a listing of all properties surveyed and any owners denying entry or failing to respond. Notify the Engineer and occupants of buildings at risk at least 24 hours before blasting.

Limit ground vibrations and airblast to levels that will not exceed limits of 805 KAR 4:005 through 4:165. More restrictive levels may be specified in the Contract.

Size all blast designs based on vibration, distance to nearest building or utility, blast site geometry, atmospheric conditions and other factors. Ground vibrations are to be controlled according to the blasting standards and scaled distance formulas in 805 KAR 4:020 or by the use of seismographs as allowed in 805 KAR 4:030. The Department will require seismographs at the nearest allowable location to the protected site when blasting occurs within 500 feet of buildings, structures, or utilities.

**3.4 Blasting.** Drill and blast at the designated slope lines according to the blasting plan. Perform presplitting to obtain smooth faces in the rock and shale formations. Perform the presplitting before blasting and excavating the interior portion of the specified cross section at any location. The Department may allow blasting for fall benches and haul roads prior to presplitting when blasting is a sufficient distance from the final slope and results are satisfactory to the Engineer. Use the types of explosives and blasting accessories necessary to obtain the required results.

Free blast holes of obstructions for their entire depth. Place charges without caving the blast hole walls. Stem the upper portion of all blast holes with dry sand or other granular material passing the 3/8-inch sieve. Dry drill cuttings are acceptable for stemming when blasts are more than 800 feet from the nearest dwelling.

Stop traffic during blasting operations when blasting near any road and ensure traffic does not pass through the Danger Zone. The blaster-in-charge will define the Danger Zone prior to each blast. Ensure traffic is stopped outside the Danger Zone, and in no case within 800 feet of the blast location.

Following a blast, stop work in the entire blast area, and check for misfires before allowing worker to return to excavate the rock.

11D

Remove or stabilize all cut face rock that is loose, hanging, or potentially dangerous. Leave minor irregularities or surface variations in place if they do not create a hazard. Drill the next lift only after the cleanup work and stabilization work is complete.

When blasting operations cause fracturing of the final rock face, repair or stabilize it in an approved manner at no cost to the Department.

Halt blasting operations in areas where any of the following occur:

- 1) Slopes are unstable;
- 2) Slopes exceed tolerances or overhangs are created;
- 3) Backslope damage occurs;
- 4) Safety of the public is jeopardized;
- 5) Property or natural features are endangered;
- 6) Fly rock is generated; or
- 7) Excessive ground or airblast vibrations occur in an area where damage to buildings, structures, or utilities is possible.
- 8) The Engineer determines that materials have become unsuitable for blasting

Blasting operations may continue at a reasonable distance from the problem area or in areas where the problems do not exist. Make the necessary modifications to the blasting operations and perform a test blast to demonstrate resolution of the problem.

**A) Drill Logs.** Maintain a layout drawing designating hole numbers with corresponding drill logs and provide a copy of this information to the blaster prior to loading the hole. Ensure the individual hole logs completed by the driller(s) show their name; date drilled; total depth drilled; and depths and descriptions of significant conditions encountered during drilling that may affect loading such as water, voids, changes in rock type.

**B) Presplitting.** Conduct presplitting operations in conformance with Subsection 204.03.04 of the Standard Specifications for Road and Bridge Construction.

**3.5 Shot Report.** Maintain all shot reports on site for review by the Department. Within one day after a blast, complete a shot report according to the record keeping requirements of 805 KAR 4:050. Include all results from airblast and seismograph monitoring.

**3.6 Unacceptable Blasting.** When unacceptable blasting occurs, the Department will halt all blasting operations. Blasting will not resume until the Department completes its investigation and all concerns are addressed. A blast is unacceptable when it results in fragmentation beyond the final rock face, fly rock, excessive vibration or airblast, overbreak, damage to the final rock face or overhang. Assume the cost for all resulting damages to private and public property and hold the Department harmless.

When an errant blast or fly rock causes damage to or blocks a road or conveyance adjacent to the roadway, remove all debris from the roadway as quickly as practicable and perform any necessary repairs. Additionally, when specified in the Contract, the Department will apply a penalty.

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**4.0 MEASUREMENT AND PAYMENT.** The Department will not measure this work for payment and will consider all items contained in this note to be incidental to either Roadway Excavation or Embankment-in-Place, as applicable. However, if the Engineer directs in writing slope changes, then the Department will pay for the second presplitting operation as Extra Work.

The Department will measure for payment material lying outside the typical section due to seams, broken formations, or earth pockets, including any earth overburden removed with this material, only when the work is performed under authorized adjustments.

The Department will not measure for payment any extra material excavated because of the drill holes being offset outside the designated slope lines.

The Department will not measure for payment any material necessary to be removed due to the inefficient or faulty blasting practices.

May 6, 2008



STANDARD DRAWINGS THAT APPLY

ROADWAY  
~ *BARRIERS* ~

GUARDRAIL CONNECTORS TO BRIDGE ENDS

GUARDRAIL CONNECTOR TO BRIDGE END TYPE A AND A-1 .....	RBC-001-09
GUARDRAIL CONNECTOR TO BRIDGE END TYPE A AND A-1 COMPONENTS .....	RBC-002-01
GUARDRAIL CONNECTOR TO BRIDGE END TYPE A AND A-1 COMPONENTS .....	RBC-003-07

TYPICAL BARRIER INSTALLATIONS

TYPICAL GUARDRAIL INSTALLATIONS .....	RBI-001-09
TYPICAL GUARDRAIL INSTALLATIONS .....	RBI-002-06
INSTALLATION OF GUARDRAIL END TREATMENT TYPE 1 .....	RBI-004-03

GUARDRAIL HARDWARE

STEEL BEAM GUARDRAIL (W-BEAM) .....	RBR-001-11
GUARDRAIL COMPONENTS .....	RBR-005-10
GUARDRAIL TERMINAL SECTIONS.....	RBR-010-05
GUARDRAIL POSTS .....	RBR-015-04
GUARDRAIL POSTS .....	RBR-016-04
GUARDRAIL END TREATMENT TYPE 1 .....	RBR-020-03
GUARDRAIL END TREATMENT TYPE 3.....	RBR-030-04
GUARDRAIL END TREATMENT TYPE 3 PIPE DRAINAGE DETAIL.....	RBR-031
GUARDRAIL END TREATMENT TYPE 4A.....	RBR-035-08

~ *DRAINAGE* ~

PAVED DITCHES, FLUME INLETS AND CHANNEL LININGS

CHANNEL LINING CLASS II AND III .....	RDD-040-04
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PIPE AND BOX CULVERT AND HEADWALLS

FOR AQLL PIPE AND BOX CULVERT HEADWALLS (RDH SERIES) SEE HEADWALL SUPPLEMENT

TYPICAL DRAINAGE INSTALLATIONS

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS .....	RDI-001-08
CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS .....	RDI-002-03
CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS .....	RDI-011-02
NON-CIRCULAR PIPE ALTERNATES.....	RDI-016-02
PIPE BEDDING FOR CULVERTS, ENTRANCE AND STORM SEWER PIPE .....	RDI-020-08
PIPE BEDDING FOR CULVERTS, ENTRANCE AND STORM SEWER REINFORCED CONC. PIPE .....	RDI-021
PIPE BEDDING, TRENCH CONDITION .....	RDI-025-04
PIPE BEDDING, TRENCH CONDITION REINFORCED CONC. PIPE .....	RDI-026
COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PLATE PIPE.....	RDI-035-01
BEDDING FOR PRECAST BOX CULVERTS, SEWERS, STORM DRAINS AND THEIR COMBINATIONS ..	RDI-120-03

MISCELLANEOUS DRAINAGE

INTERMEDIATE AND END ANCHORS FOR CIRCULAR PIPE .....	RDX-060-03
INTERMEDIATE AND END ANCHORS FOR NON-CIRCULAR PIPE .....	RDX-065-03
SILT TRAP - TYPE A .....	RDX-220-04
SILT TRAP - TYPE B.....	RDX-225
SILT TRAP - TYPE C.....	RDX-230

~ *GENERAL* ~

MISCELLANEOUS STANDARDS

MISCELLANEOUS STANDARDS PART 1 .....	RGX-001-05
TYPICAL EMBANKMENT FOUNDATION BENCHES .....	RGX-010-03

ONE POINT PROCTER FAMILY OF CURVES..... RGX-200

**TRAFFIC**  
**~ *TEMPORARY* ~**  
**TRAFFIC CONTROL**

LANE CLOSURE TWO-LANE HIGHWAY CASE I.....TTC-100-01  
LANE CLOSURE TWO-LANE HIGHWAY CASE II.....TTC-105-01  
SHOULDER CLOSURE .....TTC-135-01

**STRIPING OPERATIONS**

MOBILE OPERATION FOR PAINT STRIPING CASE I..... TTS-100-01  
MOBILE OPERATION FOR PAINT STRIPING CASE II ..... TTS-105-01

**STANDARD DRAWINGS  
HEADWALL SUPPLEMENT THAT APPLY**

**ROADWAY  
~ *PIPE AND BOX CULVERT HEADWALLS* ~  
PIPE CULVERT HEADWALLS**

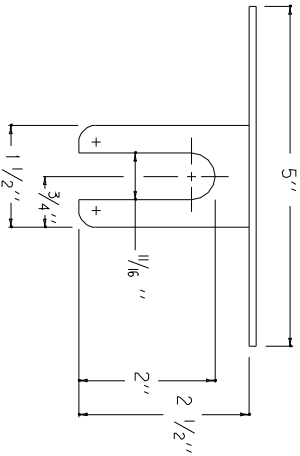
30" – 108" - SINGLE LINE PIPE

PIPE CULVERT HEADWALLS, 0° SKEW (LAYOUT AND STEEL PATTERN).....	RDH-110-02
DIMENSIONS AND QUANTITIES, 30" TO 72" HEADWALLS, NON-CIRCULAR PIPE, 0° SKEW .....	RDH-220-02
BILL OF REINFORCEMENT 30" TO 72" DIAMETER, NON-CIRCULAR PIPE, 0° SKEW.....	RDH-350-03

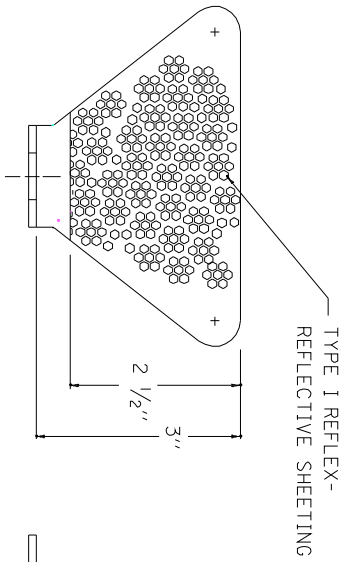
NOTES

1. DELINEATOR SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE EACH, AND SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR ONE COMPLETE INSTALLATION.
2. 

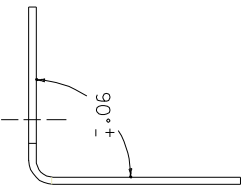
CODE	PAY ITEM	PAY UNIT
1982	DELINEATOR FOR GUARDRAIL - WHITE	EACH
1983	DELINEATOR FOR GUARDRAIL - YELLOW	EACH
3. GUARDRAIL DELINEATORS SHALL BE REQUIRED ON ALL ROADWAYS WITH SHOULDERS 6'-0" IN WIDTH OR LESS AND AT OTHER LOCATIONS WHERE THE GUARDRAIL LEADS INTO HORIZONTAL CURVES OF LESS THAN 950 FEET RADIUS.
4. DELINEATORS SHALL BE MANUFACTURED FROM 12 GA. GALVANIZED STEEL.
5. DIMENSIONS SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MANUFACTURES TOLERANCES.
6. WHEN CONCRETE BARRIERS EXTEND ACROSS BRIDGE STRUCTURES IN LIEU OF STEEL BEAM GUARDRAIL, DELINEATORS SHALL BE INSTALLED AT SAME VERTICAL ALIGNMENT AS ON THE GUARDRAIL AND DELINEATORS SHALL COMPLY WITH CURRENT STD. DWG. RBM-020.



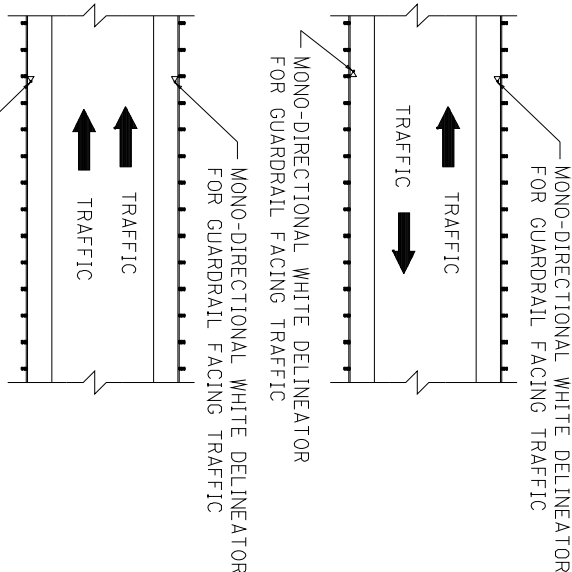
PLAN VIEW



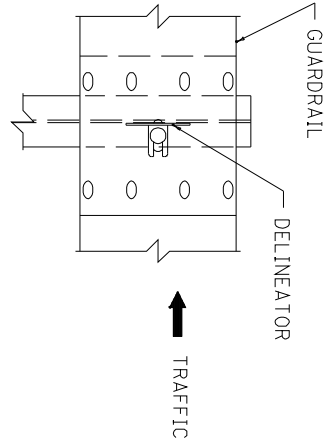
FRONT VIEW



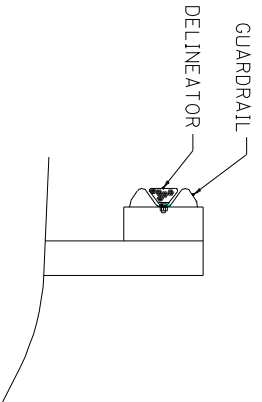
SIDE VIEW



PLACEMENT OF DELINEATORS FOR GUARDRAIL

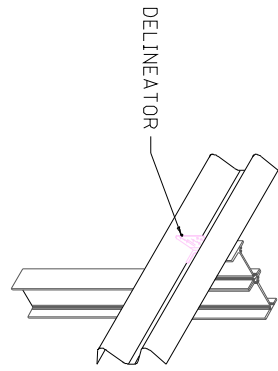


FRONT VIEW



DELINEATOR SPACINGS ON HORIZONTAL CURVES		
DEGREE OF CURVE	SPACING ON CURVES	
$\leq 2^\circ$	100'	
$> 2^\circ \leq 4^\circ$	75'	
$> 4^\circ$	50'	

SPACING ON TANGENTS = 100' INTERVALS



ISOMETRIC VIEW

KENTUCKY DEPARTMENT OF HIGHWAYS	
DELINEATORS FOR GUARDRAIL	
SUBMITTED	DATE
<i>William P. Baker</i>	12-1-99
TECH DIVISION OF DESIGN	

NOTES

- ① GAGES FOR CORRUGATED STEEL PIPE ITEMS SHOWN ARE BASED ON ALUMINUM-COATED TYPE 2 STEEL AS PER AASHTO M-274. ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN PH RANGES OF 5 TO 9
2. WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.
3. CSP, CAP, SRS AND SRA ARE SHOWN IN GAGE.
4. MAXIMUM COVER HEIGHT MEASURED FROM TOP OF PIPE TO SUBGRADE ELEVATION SHALL GOVERN GAGE OF PIPE TO BE USED FOR ENTIRE LENGTH OF PIPE INSTALLATION.
5. MINIMUM COVER HEIGHTS FOR PIPE SHALL BE 2 FEET. GAGE OF PIPE FOR COVER HEIGHTS LESS THAN 2 FEET SHALL BE THAT SHOWN FOR COVER HEIGHTS OF 30 FEET (SEE STD. SPECIFICATIONS FOR BACKFILL). HDPE AND PVC SHALL NOT BE PERMITTED FOR COVER HEIGHTS LESS THAN 2 FEET.
- ⑥ 24" DIA. PIPE IS MINIMUM SIZE FOR COVER HEIGHTS FROM 30 FEET TO 65 FEET.
7. MINIMUM COVER HEIGHT FOR ENTRANCE PIPE SHALL BE 0.5 FEET.
8. GAGE OF ENTRANCE PIPE FOR COVER HEIGHTS LESS THAN 2 FEET SHALL MEET THE FOLLOWING REQUIREMENTS:
  - a. GAGE OF CSP SHALL BE THAT SHOWN FOR HEIGHTS OF 30 FEET.
  - b. GAGE OF CAP SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLE.
9. ALL CIRCULAR STRUCTURAL PLATE SHALL BE 5% VERTICALLY ELONGATED.
10. SEE CURRENT STANDARD DRAWING RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.
- ⑪ SEE DETAIL SHEET "PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER REINFORCED CONC. PIPE"  
"PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE" FOR RCP COVER HEIGHT AND BEDDING REQUIREMENTS

## LEGEND

2. WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.

CSPHS: CORRUGATED STEEL PIPE WITH HELICAL LOCK SEAM OR HELICAL WELDED SEAM (HELICAL CORR.)

3. CSP. CAP. SRS AND SRA ARE SHOWN IN GAGE.

4. MAXIMUM COVER HEIGHT MEASURED FROM TOP OF PIPE TO SUBGRADE ELEVATION SHALL GOVERN GAGE OF PIPE TO BE USED FOR ENTIRE LENGTH OF PIPE INSTALLATION.

5. MINIMUM COVER HEIGHTS FOR PIPE SHALL BE 2 FEET. GAGE OF PIPE FOR COVER HEIGHTS LESS THAN 2 FEET SHALL BE THAT SHOWN FOR COVER HEIGHTS OF 30 FEET (SEE STD. SPECIFICATIONS FOR BACKFILL). HDPE AND PVC SHALL NOT BE PERMITTED FOR COVER HEIGHTS LESS THAN 2 FEET.

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b. GAGE OF CAP SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLE:

9. ALL CIRCULAR STRUCTURAL PLATE SHALL BE 5% VERTICALLY ELONGATED.

10. SEE CURRENT STANDARD DRAWING RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.

(11) SEE DETAIL SHEET "PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER REINFORCED CONC. PIPE" AND DETAIL SHEET "PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE" FOR RCP COVER HEIGHT AND BEDDING REQUIREMENTS.

<p align="center"><b>KENTUCKY</b>  <b>DEPARTMENT OF HIGHWAYS</b></p>	
<p align="center"><b>CULVERT, ENTRANCE &amp;  STORM SEWER PIPE TYPES  &amp; COVER HEIGHTS</b></p>	
<p>APPROVED _____</p>	<p>DATE <b>04-25-08</b></p>

PIPE DIA. (IN)	PIPE TYPE	CIRCULAR PIPE COVER HEIGHTS IN FEET (3)															
		2-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65			
27 & 30 (8)	27 3/4" x 1/2" CSPHS (1)	16 GA.				12 GA.				14 GA.				12 GA.			
	27 3/4" x 1/2" CSPLS (1)	16 GA.				14 GA.				12 GA.				10 GA.			
	27 3/4" x 1/2" CAPHS	16 GA.				14 GA.				12 GA.				10 GA.			
	SRS (1)	16 GA.				14 GA.				12 GA.				10 GA.			
	SRA	RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				FF			
	PVC	RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				FF			
	HDPE	RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				FF			
	RCP (10)	RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				FF			
36	27 3/4" x 1/2" CSPHS (1)	14 GA.				12 GA.				10 GA.				8 GA.			
	27 3/4" x 1/2" CSPLS (1)	14 GA.				12 GA.				10 GA.				8 GA.			
	27 3/4" x 1/2" CAPHS	14 GA.				12 GA.				10 GA.				8 GA.			
	SRS (1)	14 GA.				12 GA.				10 GA.				8 GA.			
	SRA	RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				FF			
	PVC	RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				FF			
	HDPE	RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				FF			
	RCP (10)	RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				FF			
42	27 3/4" x 1/2" CSPHS (1)	14 GA.				12 GA.				10 GA.				8 GA.			
	27 3/4" x 1/2" CSPLS (1)	14 GA.				12 GA.				10 GA.				8 GA.			
	27 3/4" x 1/2" CAPHS	14 GA.				12 GA.				10 GA.				8 GA.			
	SRS (1)	14 GA.				12 GA.				10 GA.				8 GA.			
	SRA	RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				FF			
	PVC	RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				FF			
	HDPE	RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				FF			
	RCP (10)	RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				RIBBED (PROFILE WALL)				FF			

- NOTES
- 1

GAGES FOR CORRUGATED STEEL PIPE ITEMS SHOWN ARE BASED ON ALUMINUM-COATED TYPE 2 STEEL AS PER AASHTO M-274. ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN PH RANGES OF 5 TO 9.
- 2

WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.
- 3

SEE CURRENT STANDARD DRAWING RDI-001 FOR EXPLANATION OF COVER HEIGHTS LESS THAN 2 FEET.
- 4

CSP, CAP, SRS AND SRA ARE SHOWN IN GAGE.
- 5

MAXIMUM COVER HEIGHT MEASURED FROM TOP OF PIPE TO SUB GRADE ELEVATION SHALL GOVERN GAGE OF PIPE TO BE USED FOR ENTIRE LENGTH OF PIPE INSTALLATION.
- 6

MINIMUM COVER HEIGHT FOR ENTRANCE PIPE SHALL BE 0.5 FEET.
- 7

ALL CIRCULAR STRUCTURAL PLATE SHALL BE 5% VERTICALLY ELONGATED.
- 8

ENTRANCE PIPE GREATER THAN 30" DIA. SHALL BE CULVERT PIPE.
- 9

SEE CURRENT STANDARD DRAWING RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.

COUNTY OF	ITEM NO.	SHEET
		5244

LEGEND

- CSPHS: CORRUGATED STEEL PIPE WITH HELICAL LOCK SEAM OR HELICAL WELDED SEAM (HELICAL CORR.)
- CSPLS: CORRUGATED STEEL PIPE WITH LONGITUDINAL RIVETED OR SPOT WELDED SEAM (ANNULAR CORR.)
- CAPHs: CORRUGATED ALUMINUM ALLOY PIPE WITH HELICAL LOCK SEAM (HELICAL CORR.)
- HDPE: HIGH DENSITY POLYETHYLENE PIPE
- PVC: POLYVINYL CHLORIDE
- SRS: SPIRAL RIB STEEL
- SRA: SPIRAL RIB ALUMINUM
- RCP: CIRCULAR REINFORCED CONCRETE PIPE
- FF: FLOWABLE FILL REQUIRED

NOTES CONTINUED

- 10 SEE DETAIL SHEET "PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER REINFORCED CONC. PIPE" AND DETAIL SHEET "PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE" FOR RCP COVER HEIGHT AND BEDDING REQUIREMENTS.

27" PIPE - 42" PIPE

KENTUCKY  
DEPARTMENT OF HIGHWAYS  
CULVERT, ENTRANCE &  
STORM SEWER PIPE TYPES  
& COVER HEIGHTS

APPROVED  
DATE  
04-25-18  
014

CIRCULAR PIPE COVER HEIGHTS IN FEET 3

PIPE DIA. (IN)	PIPE TYPE	CIRCULAR PIPE COVER HEIGHTS IN FEET (3)																											
		2-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100-105	105-110	110-115	115-120				
48	27⁄8" x 1⁄2" CSPHS (1)	14 GA.														10 GA.													
	27⁄8" x 1⁄2" CSPLS (1)	14 GA.														12 GA.													
	27⁄8" x 1⁄2" CAPHS (1)	12 GA.														8 GA.													
	SRS (1)	14 GA.														12 GA.													
	SRA	12 GA.														10 GA.													
	PVC	RIBBED (PROFILE WALL)																											
	HDPE																												
54	RCP (9)																												
	27⁄8" x 1⁄2" CSPHS (1)	14 GA.														10 GA.													
	27⁄8" x 1⁄2" CSPLS (1)	14 GA.														12 GA.										10 GA.			
	3" x 1" CSPHS (1)	14 GA.														12 GA.										8 GA.			
	3" x 1" CSPLS (1)	14 GA.														10 GA.										10 GA.			
	5" x 1" CSPHS (1)	14 GA.														12 GA.										8 GA.			
	27⁄8" x 1⁄2" CAPHS (1)	12 GA.														10 GA.										8 GA.			
7	3" x 1" CAPHS (1)	14 GA.														10 GA.										8 GA.			
	SRS (1)	14 GA.														12 GA.													
	SRA	12 GA.														10 GA.													
	RCP (9)																												

LEGEND

- 1 GAGES FOR CORRUGATED STEEL PIPE ITEMS SHOWN ARE BASED ON ALUMINUM-COATED TYPE 2 STEEL AS PER AASHTO M-274. ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN PH RANGES OF 5 TO 9.

2 WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.

3 SEE CURRENT STANDARD DRAWING RDI-001 FOR EXPLANATION OF COVER HEIGHTS LESS THAN 2 FEET.

4 CSP, CAP, SRS AND SRA ARE SHOWN IN GAGE.

5 MAXIMUM COVER HEIGHT MEASURED FROM TOP OF PIPE TO SUBGRADE ELEVATION SHALL GOVERN GAGE OF PIPE TO BE USED FOR ENTIRE LENGTH OF PIPE INSTALLATION.

6 ALL CIRCULAR STRUCTURAL PLATE SHALL BE 5% VERTICALLY ELONGATED.

7 54" DIA. PIPE IS MINIMUM SIZE FOR COVER HEIGHTS GREATER THAN 65 FEET.

8 SEE CURRENT STANDARD DRAWING RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.

9 SEE DETAIL SHEET "PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER REINFORCED CONC. PIPE" AND DETAIL SHEET "PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE" FOR RCP COVER HEIGHT AND BEDDING REQUIREMENTS.
- CSPHS: CORRUGATED STEEL PIPE WITH HELICAL LOCK SEAM OR HELICAL WELDED SEAM (HELICAL CORR.)

CSPLS: CORRUGATED STEEL PIPE WITH LONGITUDINAL RIVETED OR SPOT WELDED SEAM (ANNULAR CORR.)

CAPHS: CORRUGATED ALUMINUM ALLOY PIPE WITH HELICAL LOCK SEAM (HELICAL CORR.)

HDPE: HIGH DENSITY POLYETHYLENE PIPE

PVC: POLYVINYL CHLORIDE

SRS: SPIRAL RIB STEEL

SRA: SPIRAL RIB ALUMINUM


RCP: CIRCULAR REINFORCED CONCRETE PIPE

48" PIPE - 54" PIPE

KENTUCKY  
DEPARTMENT OF HIGHWAYS

CULVERT &  
STORM SEWER PIPE TYPES  
& COVER HEIGHTS

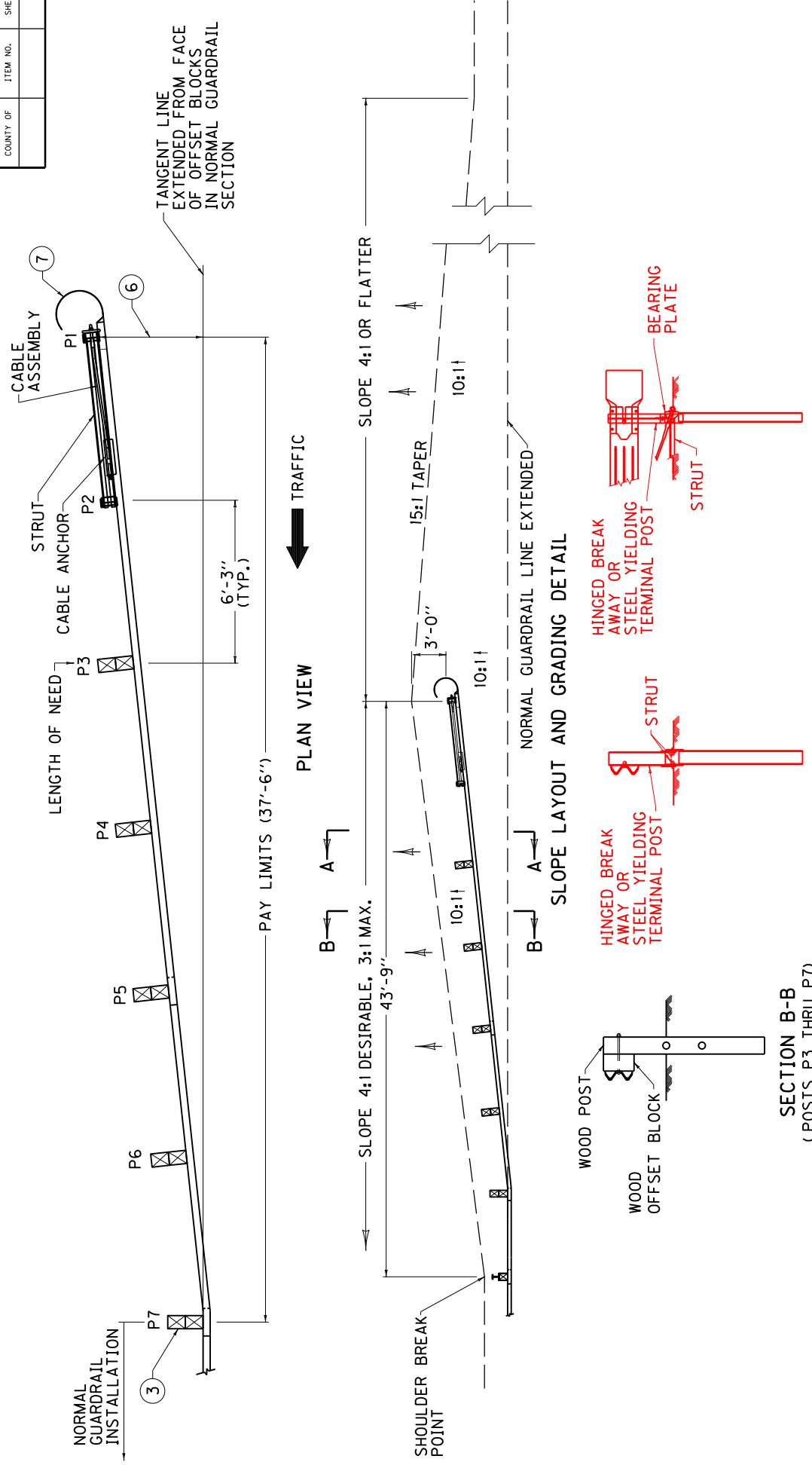
APPROVED

  
DAVID J. BLEVINS  
STATE ENGINEER OF DESIGN

04-25-08  
DATE

SHEET 3 OF 8

OII



1. BID ITEMS AND UNIT TO BID:  
A. GUARDRAIL END TREATMENT TYPE 4A - EACH  
B. MATERIAL USED TO CONSTRUCT WIDENING SHALL BE BID AS ROADWAY OR BORROW EXCAVATION OR EMBANKMENT-IN-PLACE AT THE CONTRACT UNIT PRICE PER CUBIC YARD.

2. INTENDED USE: AREAS WITH ADEQUATE VEHICLE RECOVERY ZONE BEHIND GUARDRAIL.

3. POST P7 SHALL BE A CRT BREAKAWAY WOOD POST.

4. GUARDRAIL END TREATMENT TYPE 4A IS A PATENTED (ONE SOURCE) PRODUCT MANUFACTURED BY TRINITY INDUSTRIES, INC. OF DALLAS, TX. OR ROAD SYSTEMS, INC. OF BIG SPRING, TX.

5. THE MANUFACTURER SHALL FURNISH TWO (2) SETS OF SHOP PLANS TO THE CONTRACTOR WITH EACH INSTALLATION.

6. SYSTEM OFFSET OF 4'-0" SHALL BE MEASURED FROM FACE OF OFFSET BLOCK AT NORMAL GUARDRAIL SECTION TO FACE OF POST AT P1.

7. OBJECT MARKER TYPE 3 (SEE CURRENT MUTCD MANUAL FOR DETAILS).
- KENTUCKY  
DEPARTMENT OF HIGHWAYS

GUARDRAIL  
END TREATMENT  
TYPE 4A

APPROVED  
DIRECTOR OF DESIGN  
03-13-09  
DATE
- ENLARGED VIEW P1
- SECTION A-A  
(POST P2)
- SECTION B-B  
(POSTS P3 THRU P7)



## **PART III**

### **EMPLOYMENT, WAGE AND RECORD REQUIREMENTS**

REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS

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ATTACHMENTS

- A. Employment Preference for Appalachian Contracts  
(included in Appalachian contracts only)

I. GENERAL

1. 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.
2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.
3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.
4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:
- Section I, paragraph 2;  
Section IV, paragraphs 1, 2, 3, 4, and 7;  
Section V, paragraphs 1 and 2a through 2g.
5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 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 DOL, or the contractor's employees or their representatives.
6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

- a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or
- b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) 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 Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:
- a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.
- b. The contractor will accept as his operating policy the following statement:
- "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."
2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.
3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
- a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

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

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

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 minority groups 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 minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group 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, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

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

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

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

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

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his 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 his avenues of appeal.

#### 6. **Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

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. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

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 minority group and women employees 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 his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. 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 best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

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

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA 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 minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin,

age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) 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 SHA.

**8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

- a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.
- b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.
- c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

**9. 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 completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

- a. The records kept by the contractor shall document the following:
  - (1) The number 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;
  - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
  - (4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA 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. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

**III. NONSEGREGATED FACILITIES**

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

**IV. PAYMENT OF PREDETERMINED MINIMUM WAGE**

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

**1. General:**

a. All mechanics and laborers 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 (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) 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. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, 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 paragraphs 4 and 5 of this Section IV.

b. 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.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

## **2. Classification:**

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification 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 DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour 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.

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

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

## **3. Payment of Fringe Benefits:**

a. 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 or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a 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.

## **4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:**

### **a. Apprentices:**

(1) 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 DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/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 Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees 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 employee 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 listed in 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 or subcontractor 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-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) 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 journeyman-level 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 for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

**b. Trainees:**

(1) 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 DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. 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.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level 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-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor 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. Helpers:**

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under an approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

**5. Apprentices and Trainees (Programs of the U.S. DOT):**

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of

Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**6. Withholding:**

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor 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, as 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 SHA contracting officer 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.

**7. Overtime Requirements:**

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

**8. Violation:**

**Liability for Unpaid Wages; Liquidated Damages:** In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her 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, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

**9. Withholding for Unpaid Wages and Liquidated Damages:**

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies 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 8 above.

**V. STATEMENTS AND PAYROLLS**

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

**1. Compliance with Copeland Regulations (29 CFR 3):**

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

**2. Payrolls and Payroll Records:**

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof 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. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found 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 and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such 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 the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. 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 2d of this Section V.

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

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, 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 SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions 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.

**VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR**

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

## VII. SUBLETTING OR ASSIGNING THE CONTRACT

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 State. 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).

a. "Its own organization" shall be construed to include only workers employed and paid directly 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, assignee, or agent of the prime contractor.

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 on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA 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 SHA 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 SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

## VIII. SAFETY: ACCIDENT PREVENTION

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

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

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. 333).

## IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

### NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

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

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

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

*Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;*

*Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both."*

## X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:



1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

#### **XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

##### **1. Instructions for Certification - Primary Covered Transactions:**

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary 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 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 primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

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

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which

this proposal is submitted for assistance in obtaining a copy of those regulations.

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

g. The prospective primary 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 Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. 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.

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.

\* \* \* \* \*

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions**

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
- a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
  - b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement 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;
  - c. 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 1b of this certification; and
  - d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

**2. Instructions for Certification - Lower Tier Covered Transactions:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- 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 may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:**

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

**XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

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

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

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and

submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she 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.

**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 (between forty and seventy); 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 (between forty and seventy). 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, disability or age (between forty and seventy), except that such notice or advertisement may indicate a preference, limitation, or specification based on religion, or national origin when religion, or national origin 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 (between forty and seventy), 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: 12-3-92

## 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 (6) provides:

No present or former public servant shall, within six (6) months of 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 the state in matters in which he was directly involved during 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, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved 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.

KRS 11A.040 (8) states:

A former public servant shall not represent a person in a matter before a state agency in which the former public servant was directly involved, 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, Room 136, Capitol Building, 700 Capitol Avenue, Frankfort, Kentucky 40601; telephone (502) 564-7954.

General Decision Number: KY120125 04/13/2012 KY125

Superseded General Decision Number: KY20100211

State: Kentucky

Construction Type: Highway

Counties: Anderson, Bath, Bourbon, Boyd, Boyle, Bracken, Breckinridge, Bullitt, Carroll, Carter, Clark, Elliott, Fayette, Fleming, Franklin, Gallatin, Grant, Grayson, Greenup, Hardin, Harrison, Henry, Jefferson, Jessamine, Larue, Lewis, Madison, Marion, Mason, Meade, Mercer, Montgomery, Nelson, Nicholas, Oldham, Owen, Robertson, Rowan, Scott, Shelby, Spencer, Trimble, Washington and Woodford Counties in Kentucky.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Modification Number	Publication Date
0	01/06/2012
1	01/13/2012
2	01/20/2012
3	04/13/2012

BRIN0004-003 06/01/2011

BRECKENRIDGE COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 24.11	10.07
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BRKY0001-005 06/01/2011

BULLITT, CARROLL, GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, & TRIMBLE COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 24.11	10.07
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BRKY0002-006 06/01/2011

BRACKEN, GALLATIN, GRANT, MASON & ROBERTSON COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 26.57	10.26
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BRKY0007-004 06/01/2011

BOYD, CARTER, ELLIOT, FLEMING, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 28.29	16.80

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BRKY0017-004 06/01/2009

ANDERSON, BATH, BOURBON, BOYLE, CLARK, FAYETTE, FRANKLIN,  
HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS,  
OWEN, SCOTT, WASHINGTON & WOODFORD COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 24.11	9.97

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CARP0064-001 07/01/2011

	Rates	Fringes
CARPENTER.....	\$ 25.95	13.26
Diver.....	\$ 39.30	13.26
PILEDRIVERMAN.....	\$ 26.20	13.26

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ELEC0212-008 05/31/2011

BRACKEN, GALLATIN and GRANT COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 26.11	14.94

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ELEC0212-014 06/27/2011

BRACKEN, GALLATIN & GRANT COUNTIES:

	Rates	Fringes
Sound & Communication Technician.....	\$ 21.55	8.46

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ELEC0317-012 06/01/2011

BOYD, CARTER, ELLIOT & ROWAN COUNTIES:

	Rates	Fringes
Electricians:		
Cable Splicer.....	\$ 32.68	18.13
Electrician.....	\$ 31.87	19.96

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ELEC0369-007 06/01/2011

ANDERSON, BATH, BOURBON, BOYLE, BRECKINRIDGE, BULLITT, CARROLL,  
CLARK, FAYETTE, FRAONKLIN, GRAYSON, HARDIN, HARRISON, HENRY,  
JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER,  
MONTGOMERY, NELSON, NICHOLAS, OLDHAM, OWEN, ROBERTSON, SCOTT,  
SHELBY, SPENCER, TRIMBLE, WASHINGTON, & WOODFORD COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 29.27	13.33
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ELEC0575-002 05/30/2011		

FLEMING, GREENUP, LEWIS & MASON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 30.69	13.32
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ENGI0181-018 07/01/2011		

	Rates	Fringes
Operating Engineer:		
GROUP 1.....	\$ 26.50	13.00
GROUP 2.....	\$ 24.08	13.00
GROUP 3.....	\$ 24.46	13.00
GROUP 4.....	\$ 23.82	13.00

# 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; Gurries; Heavy Equipment Robotics Operator/Mechanic; High Lift; Hoe-Type Machine; Hoist (Two or More Drums); Hoisting Engine (Two or More Drums); Horizontal Directional Drill Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau; Locomotive; Mechanic; Mechanically Operated Laser Screed; Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel Bucket; Overhead Crane; Piledriver; Power Blade; Pumpcrete; Push Dozer; Rock Spreader, attached to equipment; Rotary Drill; Roller (Bituminous); Rough Terrain Crane; Scarifier; Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom; Telescoping Type Forklift; Tow or Push Boat; Tower Crane (French, German & other types); Tractor Shovel; Truck Crane; Tunnel Mining Machines, including Moles, Shields or similar types of Tunnel Mining Equipment

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft.); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (When used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted 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 leads equals or exceeds 150 ft. - \$1.00 over  
Group 1 rate

EMPLOYEES ASSIGNED TO WORK BELOW GROUND LEVEL ARE TO BE PAID  
10%

ABOVE BASIC WAGE RATE. THIS DOES NOT APPLY TO OPEN CUT WORK.

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IRON0044-009 06/01/2011

BRACKEN, GALLATIN, GRANT, HARRISON, ROBERTSON,  
BOURBON (Northern third, including Townships of Jackson,  
Millersburg, Ruddel Mills & Shawhan);  
CARROLL (Eastern third, including the Township of Ghent);  
FLEMING (Western part, excluding Townships of Beechburg, Colfax,  
Elizaville, Flemingsburg, Flemingsburg Junction, Foxport,  
Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills,  
Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar  
Plains, Ringos Mills, Tilton & Wallingford);  
MASON (Western two-thirds, including Townships of Dover,  
Lewisburg, Mays Lick, Maysville, Minerva, Moranburg,  
Murphysville, Ripley, Sardis, Shannon, South Ripley &  
Washington);  
NICHOLAS (Townships of Barefoot, Barterville, Carlisle,  
Ellisville, Headquarters, Henryville, Morningglory, Myers &  
Oakland Mills);  
OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook,  
Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New  
Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita &  
Wheatley);  
SCOTT (Northern two-thirds, including Townships of Biddle,  
Davis, Delaplain, Elmville, Longlick, Muddy Ford, Oxford,  
Rogers Gap, Sadieville, Skinnersburg & Stonewall)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 22.92	17.20
Structural.....	\$ 25.50	17.20

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IRON0070-006 06/01/2011

ANDERSON, BOYLE, BRECKINRIDGE, BULLITT, FAYETTE, FRANKLIN,  
GRAYSON, HARDIN, HENRY, JEFFERSON, JESSAMINE, LARUE, MADISON,

MARION, MEADE, MERCER, NELSON, OLDHAM, SHELBY, SPENCER,  
TRIMBLE, WASHINGTON & WOODFORD  
BOURBON (Southern two-thirds, including Townships of Austerlity,  
Centerville, Clintonville, Elizabeth, Hutchison, Littlerock,  
North Middletown & Paris);  
CARROLL (Western two-thirds, including Townships of Carrollton,  
Easterday, English, Locust, Louis, Prestonville & Worthville);  
CLARK (Western two-thirds, including Townships of Becknerville,  
Flanagan, Ford, Pine Grove, Winchester & Wyandotte);  
OWEN (Eastern eighth, including Townships of Glenmary, Gratz,  
Monterey, Perry Park & Tacketts Mill);  
SCOTT (Southern third, including Townships of Georgetown, Great  
Crossing, Newtown, Stampeling Ground & Woodlake);

	Rates	Fringes
IRONWORKER.....	\$ 25.77	18.28
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* IRON0372-006 01/01/2012		

BRACKEN, GALLATIN, GRANT, HARRISON and ROBERTSON  
BOURBON (Northern third, including Townships of Jackson,  
Millersburg, Ruddel Mills & Shawhan);  
CARROLL (Eastern third, including the Township of Ghent);  
FLEMING (Western part, Excluding Townships of Beechburg, Colfax,  
Elizaville, Flemingsburg, Flemingsburg Junction, Foxport,  
Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills,  
Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar  
Plains,  
Ringos Mills, Tilton & Wallingford);  
MASON (Western two-thirds, including Townships of Dover,  
Lewisburg, Mays Lick, Maysville, Minerva, Moranburg,  
Murphysville, Ripley, Sardis, Shannon, South Ripley &  
Washington);  
NICHOLAS (Townships of Barefoot, Barterville, Carlisle,  
Ellisville, Headquarters, Henryville, Morningglory, Myers &  
Oakland Mills);  
OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook,  
Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New  
Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita &  
Wheatley);  
SCOTT (Northern two-thirds, including Townships of Biddle,  
Davis, Delaplain, Elmville, Longlick, Muddy Ford, Oxford, Rogers  
Gap, Sadieville, Skinnersburg & Stonewall) COUNTIES

	Rates	Fringes
IRONWORKER, REINFORCING Beyond 30-mile radius of Hamilton County, Ohio Courthouse.....	\$ 26.75	17.55
Up to & including 30-mile radius of Hamilton County, Ohio Courthouse.....	\$ 26.50	17.55
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IRON0769-007 06/01/2011		

BATH, BOYD, CARTER, ELLIOTT, GREENUP, LEWIS, MONTGOMERY & ROWAN

CLARK (Eastern third, including townships of Bloomingdale, Hunt, Indian Fields, Kiddville, Loglick, Rightangele & Thomson);  
FLEMING (Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummerville, Plummerville Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford);  
MASON (Eastern third, including Townships of Helena, Marshall, Orangeburg, Plumville & Springdale);  
NICHOLAS (Eastern eighth, including the Township of Moorefield Sprout)

	Rates	Fringes
IRONWORKER.....	\$ 30.96	18.07
ZONE 1.....	\$ 29.59	18.07
ZONE 2.....	\$ 31.36	18.07
ZONE 3.....	\$ 32.96	18.07

    ZONE 1 - Up to 10 mi. radius of union hall, Ashland, Ky.,  
    1643 Greenup Avenue  
    ZONE 2 - 10 to 50 mi. radius of union hall;  
    ZONE 3 - 50 mi. radius and beyond

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LABO0189-003 07/01/2011

BATH, BOURBON, BOYD, BOYLE, BRACKEN, CARTER, CLARK, ELLIOTT, FAYETTE, FLEMING, FRANKLIN, GALLATIN, GRANT, GREENUP, HARRISON, JESSAMINE, LEWIS, MADISON, MASON, MERCER, MONTGOMERY, NICHOLAS, OWEN, ROBERTSON, ROWAN, SCOTT, & WOOLFORD COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 20.81	10.85
GROUP 2.....	\$ 21.06	10.85
GROUP 3.....	\$ 21.11	10.85
GROUP 4.....	\$ 21.71	10.85

LABORERS CLASSIFICATIONS

- GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup
- GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; 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; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

LABO0189-008 07/01/2011

ANDERSON, BULLITT, CARROLL, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 21.26	10.40
GROUP 2.....	\$ 21.51	10.40
GROUP 3.....	\$ 21.56	10.40
GROUP 4.....	\$ 22.16	10.40

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; 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; 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

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LABO0189-009 07/01/2011

# BRECKINRIDGE & GRAYSON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 21.51	10.15
GROUP 2.....	\$ 21.76	10.15
GROUP 3.....	\$ 21.81	10.15
GROUP 4.....	\$ 22.41	10.15

## LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement  
Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter  
Tender; Cement Mason Tender; Cleaning of Machines;  
Concrete; Demolition; Dredging; Environmental - Nuclear,  
Radiation, Toxic & Hazardous Waste - Level D; Flagperson;  
Grade Checker; Hand Digging & Hand Back Filling; Highway  
Marker Placer; Landscaping, Mesh Handler & Placer; Puddler;  
Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail  
& Fence Installer; Signal Person; Sound Barrier Installer;  
Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper;  
Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer);  
Brickmason Tender; Mortar Mixer Operator; Scaffold Builder;  
Burner & Welder; 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; 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

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PAIN0012-005 06/11/2005

BATH, BOURBON, BOYLE, CLARK, FAYETTE, FLEMING, FRANKLIN,  
HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS,  
ROBERTSON, SCOTT & WOODFORD COUNTIES:

	Rates	Fringes
PAINTER		
Bridge/Equipment Tender		
and/or Containment Builder..\$ 18.90		5.90
Brush & Roller.....\$ 21.30		5.90
Elevated Tanks;		
Steeplejack Work; Bridge &		
Lead Abatement.....\$ 22.30		5.90
Sandblasting &		
Waterblasting.....\$ 22.05		5.90
Spray.....\$ 21.80		5.90

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PAIN0012-017 05/02/2011

BRACKEN, GALLATIN, GRANT, MASON & OWEN COUNTIES:

	Rates	Fringes
PAINTER (Heavy & Highway		
Bridges - Guardrails -		
Lightpoles - Striping)		
Bridge Equipment Tender		
and Containment Builder.....\$ 20.27		8.10
Brush & Roller.....\$ 23.85		8.10
Elevated Tanks;		
Steeplejack Work; Bridge &		
Lead Abatement.....\$ 23.85		8.10
Sandblasting & Water		
Blasting.....\$ 24.60		8.10
Spray.....\$ 24.35		8.10

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PAIN0118-004 05/01/2010

ANDERSON, BRECKINRIDGE, BULLITT, CARROLL, GRAYSON, HARDIN,  
HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY,  
SPENCER, TRIMBLE & WASHINGTON COUNTIES:

	Rates	Fringes
PAINTER		
Brush & Roller.....\$ 18.50		10.30
Spray, Sandblast, Power		
Tools, Waterblast & Steam		

Cleaning.....	\$ 19.50	10.30
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PAIN1072-003 12/01/2011

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS and ROWAN COUNTIES

	Rates	Fringes
Painters:		
Bridges; Locks; Dams;		
Tension Towers & Energized		
Substations.....	\$ 29.33	14.20
Power Generating Facilities.	\$ 26.09	14.20

PLUM0248-003 06/01/2011

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
Plumber and Steamfitter.....	\$ 32.00	16.24

PLUM0392-007 09/01/2011

BRACKEN, CARROLL (Eastern Half), GALLATIN, GRANT, MASON, OWEN & ROBERTSON COUNTIES:

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 29.30	15.74

PLUM0502-003 08/01/2011

BRECKINRIDGE, BULLITT, CARROLL (Western Half), FRANKLIN (Western three-fourths), GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES

	Rates	Fringes
PLUMBER.....	\$ 31.00	16.13

SUKY2010-160 10/08/2001

	Rates	Fringes
Truck drivers:		
GROUP 1.....	\$ 16.57	7.34
GROUP 2.....	\$ 16.68	7.34
GROUP 3.....	\$ 16.86	7.34
GROUP 4.....	\$ 16.96	7.34

TRUCK DRIVER CLASSIFICATIONS

- GROUP 1 - Mobile Batch Truck Tender
- GROUP 2 - Greaser; Tire Changer; & Mechanic Tender

GROUP 3 - Single Axle Dump; Flatbed; Semi-trailer or Pole  
Trailer when used to pull building materials and equipment;  
Tandem Axle Dump; Distributor; Mixer; & Truck Mechanic

GROUP 4 - Euclid & Other Heavy Earthmoving Equipment &  
Lowboy; Articulator Cat; 5-Axle Vehicle; Winch & A-Frame  
when used in transporting materials; Ross Carrier; Forklift  
when used to transport building materials; & Pavement  
Breaker

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WELDERS - Receive rate prescribed for craft performing  
operation to which welding is incidental.

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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)).

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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 union or non-union.

#### Union Identifiers

An identifier enclosed in dotted lines beginning with  
characters other than "SU" denotes that the union  
classification and rate have found to be prevailing for that  
classification. Example: PLUM0198-005 07/01/2011. The  
first four letters , PLUM, indicate the international union and  
the four-digit number, 0198, that follows indicates the local  
union number or district council number where applicable ,  
i.e., Plumbers Local 0198. The next number, 005 in the  
example, is an internal number used in processing the wage  
determination. The date, 07/01/2011, following these  
characters is the effective date of the most current  
negotiated rate/collective bargaining agreement which would be  
July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any  
changes in the collective bargaining agreements governing the  
rate.

#### Non-Union Identifiers

Classifications listed under an "SU" identifier were derived  
from survey data by computing average rates and are not union  
rates; however, the data used in computing these rates may  
include both union and non-union data. Example: SULA2004-007  
5/13/2010. SU indicates the rates are not union rates, LA



indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

These rates are listed pursuant to the Kentucky Determination No. CR-11-III- HWY dated August 04, 2011

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contractor shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

**TO: EMPLOYERS/EMPLOYEES**

**PREVAILING WAGE SCHEDULE:**

**The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.**

**OVERTIME:**

**Overtime is to be paid after an employee works eight (8) hours a day or forty (40) hours a week, whichever gives the employee the greater wages. At least time and one-half the base rate is required for all overtime. A laborer, workman or mechanic and an employer may enter into a written agreement or a collective bargaining agreement to work more than eight (8) hours a calendar day but not more than ten (10) hours a calendar day for the straight time hourly rate. Wage violations or questions should be directed to the designated Engineer or the undersigned.**

Ryan Griffith, Director  
Division of Construction Procurement  
Frankfort, Kentucky 40622

**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:

<b>GOALS FOR MINORITY PARTICIPATION IN EACH TRADE</b>	<b>GOALS FOR FEMALE PARTICIPATION IN EACH TRADE</b>
2.9%	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 Boyd County.

## **PART IV**

## **INSURANCE**

## INSURANCE

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

- 1) Commercial General Liability-Occurrence form – not less than \$2,000,000 General aggregate, \$2,000,000 Products & Completed Aggregate, \$1,000,000 Personal & Advertising, \$1,000,000 each occurrence.
- 2) Automobile Liability- \$1,000,000 per accident
- 3) Employers Liability:
  - a) \$100,000 Each Accident Bodily Injury
  - b) \$500,000 Policy limit Bodily Injury by Disease
  - c) \$100,000 Each Employee Bodily Injury by Disease
- 4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
  - a) "policy contains no deductible clauses."
  - b) "policy contains \_\_\_\_\_ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."
- 5) KENTUCKY WORKMEN'S COMPENSATION INSURANCE. The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

**PART V**

**BID ITEMS**

KENTUCKY TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS  
FRANKFORT, KY 40622CONTRACT ID: 124011  
COUNTY: BOYD  
PROPOSAL: HSIP 5244 (014)PAGE: 1  
LETTING: 05/18/12  
CALL NO: 106

LINE NO	ITEM	DESCRIPTION	APPROXIMATE UNIT QUANTITY	UNIT PRICE	AMOUNT
SECTION 0001 ROADWAY					
0010	00001	DGA BASE	2,000.000 TON		
0020	00190	LEVELING & WEDGING PG64-22	50.000 TON		
0030	00212	CL2 ASPH BASE 1.00D PG64-22	70.000 TON		
0040	01982	DELINEATOR FOR GUARDRAIL-WHITE	165.000 EACH		
0050	02014	BARRICADE-TYPE III	8.000 EACH		
0060	02351	GUARDRAIL-STEEL W BEAM-S FACE	12,725.000 LF		
0070	02360	GUARDRAIL TERMINAL SECTION NO 1	30.000 EACH		
0080	02363	GUARDRAIL CONNECTOR TO BRIDGE END TY A	7.000 EACH		
0090	02367	GUARDRAIL END TREATMENT TYPE 1	5.000 EACH		
0100	02373	GUARDRAIL END TREATMENT TYPE 3	3.000 EACH		
0110	02381	REMOVE GUARDRAIL	8,475.000 LF		
0120	02391	GUARDRAIL END TREATMENT TYPE 4A	18.000 EACH		
0130	02460	REMOVE TREES OR STUMPS	10.000 EACH		
0140	02562	SIGNS	150.000 SQFT		
0150	02575	DITCHING AND SHOULDERING	35,904.000 LF		
0160	02650	MAINTAIN & CONTROL TRAFFIC KY 5	( 1.00) LS		
0170	02671	PORTABLE CHANGEABLE MESSAGE SIGN	2.000 EACH		
0180	02726	STAKING KY 5	( 1.00) LS		
0190	03270	TREE AND BRUSH REMOVAL	36,390.000 LF		
0200	05950	EROSION CONTROL BLANKET	39,895.000 SQYD		



KENTUCKY TRANSPORTATION CABINET  
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PAGE: 2  
LETTING: 05/18/12  
CALL NO: 106

LINE NO	ITEM	DESCRIPTION	APPROXIMATE UNIT QUANTITY	UNIT PRICE	AMOUNT
0210	06510	PAVE STRIPING-TEMP PAINT-4 IN	500.000 LF		
0220	21415ND	EROSION CONTROL KY 5	( 1.00) LS		
SECTION 0002 DRAINAGE					
0230	00462	CULVERT PIPE-18 IN	4.000 LF		
0240	00464	CULVERT PIPE-24 IN	120.000 LF		
0250	00468	CULVERT PIPE-36 IN	100.000 LF		
0260	00498	CULVERT PIPE-42 IN EQUIV	140.000 LF		
0270	00499	CULVERT PIPE-48 IN EQUIV	40.000 LF		
0280	00500	CULVERT PIPE-54 IN EQUIV	80.000 LF		
0290	02187	SITE PREPARATION	3.000 EACH		
0300	02403	REMOVE CONCRETE MASONRY	1.500 CUYD		
0310	02483	CHANNEL LINING CLASS II	550.000 TON		
0320	02731	REMOVE STRUCTURE MP 0.225 (3'X3' BOX)	( 1.00) LS		
0330	02731	REMOVE STRUCTURE MP 1.714 (4'X3' BOX)	( 1.00) LS		
0340	02731	REMOVE STRUCTURE MP 4.912 (4'X3' BOX)	( 1.00) LS		
0350	02731	REMOVE STRUCTURE MP 5.137 (ALUM BOX)	( 1.00) LS		
0360	02731	REMOVE STRUCTURE MP 5.994 (4'X2' BOX)	( 1.00) LS		
0370	02731	REMOVE STRUCTURE MP 6.075 (5'X2' BOX)	( 1.00) LS		
0380	08003	FOUNDATION PREPARATION MP 5.137 (ALUM BOX)	( 1.00) LS		
0390	08003	FOUNDATION PREPARATION MP 5.464 (4'X2' BOX)	( 1.00) LS		
0400	08003	FOUNDATION PREPARATION MP 5.522 (8'X5' BOX)	( 1.00) LS		

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PROPOSAL: HSIP 5244 (014)

PAGE: 3  
LETTING: 05/18/12  
CALL NO: 106

LINE NO	ITEM	DESCRIPTION	APPROXIMATE UNIT QUANTITY	UNIT PRICE	AMOUNT
0410	08100	CONCRETE-CLASS A	65.240 CUYD		
0420	08150	STEEL REINFORCEMENT	5,888.000 LB		
0430	20694EN	ALUMINUM STRUCTURAL PLATE BOX CULVERT	40.500 LF		
SECTION 0003 DEMOBILIZATION					
0440	02569	DEMOBILIZATION (AT LEAST 1.5%)	LUMP		
		TOTAL BID			