

CALL NO. 303

CONTRACT ID. 112977

CLAY COUNTY

FED/STATE PROJECT NUMBER FE02 026 9006 B00062N

DESCRIPTION HAL ROGERS PARKWAY (MP 10.830)

WORK TYPE BRIDGE DECK RESTORATION & WATERPROOFING

PRIMARY COMPLETION DATE 11/15/2012

#### **LETTING DATE:** September 23, 2011

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME September 23, 2011. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

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

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### PART I SCOPE OF WORK

CLAY COUNTY FE02 026 9006 B00062N

CONTRACT ID - 112977

ADMINISTRATIVE DISTRICT - 11

PROJECT(S) IDENTIFICATION AND DESCRIPTION:

COUNTY - CLAY

PCN - MB02690061101

FE02 026 9006 B00062N

HAL ROGERS PARKWAY (MP 10.830) BRIDGE OVER LITTLE GOOSE CREEK ROAD 0.25 MILES EAST OF LAUREL-CLAY COUNTY LINE. BRIDGE DECK RESTORATION & WATERPROOFING. GEOGRAPHIC COORDINATES LATITUDE 37^06'56" LONGITUDE 83^55'24"

COMPLETION DATE(S):

COMPLETION DATE - November 15, 2012 APPLIES TO ENTIRE CONTRACT

30 CALENDAR DAYS APPLIES TO B00062N

#### **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. (<a href="www.transportation.ky.gov/contract">www.transportation.ky.gov/contract</a>)

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

#### JOINT VENTURE BIDDING

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

#### UNDERGROUND FACILITY DAMAGE PROTECTION

The contractor 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.

#### 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 <a href="mailto-kytc.projectquestions@ky.gov">kytc.projectquestions@ky.gov</a>. 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 (<a href="www.transportation.ky.gov/contract">www.transportation.ky.gov/contract</a>). The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

04/28/2011

#### SPECIAL NOTE FOR RECIPROCAL PREFERENCE

#### Reciprocal preference to be given by public agencies to resident bidders

By reference, KRS 45A.490 to 45A.494 are incorporated herein and in compliance regarding the bidders residency. Bidders who want to claim resident bidder status should complete the Affidavit for Claiming Resident Bidder Status along with their bid in the Expedite Bidding Program. Submittal of the Affidavit should be done along with the bid in Bid Express.

### SPECIAL NOTE FOR BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS

**I. DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2008 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

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

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

#### II. MATERIALS.

- **A. Latex Concrete.** See Section 606.03.17.
- **B.** Class "M" Concrete. Use either "M1" or "M2". See Section 601.
- C. Bituminous Asphalt. Use CL4 ASPH SURF 0.38A PG76-22.
- **D. Epoxy-Sand Slurry.** See Section 606.03.10.

#### III. CONSTRUCTION.

- **A. Remove Existing Overlay.** In addition to Section 606.03.03, totally remove the existing concrete overlay by milling. See Special Note for Use of Hydrodemolition Method.
- **B. Partial Depth Slab Repair.** Remove areas determined to be unsound by the Engineer via Hydrodemolition or <u>via hand held jackhammers weighing less than 40lbs</u>. No wrecking balls, drop hammers, or rig-mounted breakers are allowed. Repair/Replace all damaged or severely corroded reinforcing bars prior to partial depth repair operation. The Department will not measure material removal and will consider this work incidental to the bid item "PARTIAL DEPTH PATCHING".
- C. Asphalt Approach Pavement. Mill the existing asphalt pavement on each end of the bridge for a distance of 50'. Remove the bituminous material uniformly by making an edge key, so as to provide a smooth transition to the finished bridge when a new bituminous overlay of compacted depth of approximately 1½' is added to the approaches. The grinding depth may vary depending of the condition of the existing approach and final elevation of bridge end. Dispose of all removed material away from the site.
- **D. Surface Texturing.** Texture the concrete surface of the overlay in accordance with Section 609.03.10.

#### **IV. MEASUREMENT.** See Section 606 and the following:

**A. Latex Modified Concrete (1 1/2 inches thick).** The Department will measure the quantity in cubic yards using the theoretical volume as follows for each bridge:

026B00062N (188'x44'x1.5") = 38.3 cuyd

- **B.** Latex Modified Concrete for Partial Depth Patching. The Department will measure the quantity in cubic yards by deducting the theoretical volume of bridge deck overlay (LMC) from the total volume (as indicated by the batch quantity tickets) of Concrete required to obtain the finished grade shown on the Plans or established by the Engineer.
- **C. Remove Existing Overlay.** The Department will measure the removal of the existing overlay in square yards, which shall include all labor, equipment, and material needed to complete this work.
- **D. Steel Reinforcement.** The Department will measure any reinforcing steel necessary for the partial or full depth patch in pounds, which shall include all labor, equipment, and material needed to complete this work.
- **E. Asphalt Approach Pavement.** The Department will measure the quantity in square yards, which shall include all labor, equipment, and material needed to complete this work.
- **V. PAYMENT.** See Section 606 and the following:
  - **A.** Latex Modified Concrete (1 1/2 inches thick). The Department will make payment for the Latex Modified Concrete under bid item #08534 "CONCRETE OVERLAY LATEX" for the quantity in cubic yards complete in place.
  - **B.** Latex Modified Concrete for Partial Depth Patching. The Department will make payment for the Partial Depth Patching under bid item #24094EC "PARTIAL DEPTH PATCHING". Payment will be for the quantity per cubic yard complete in place.
  - **C. Remove Existing Overlay.** The Department will make payment for the removal of the existing overlay under bid item #08510 "REM EPOXY BIT FOREIGN OVERLAY". Payment will be for the square yard complete.
  - **D. Steel Reinforcement.** The Department will make payment for steel reinforcement, if necessary, under bid item #08150 "STEEL REINFORCEMENT". Payment will be at the unit price per pound.
  - **E. Asphalt Approach Pavement.** The Department will make payment for the completed and accepted quantity of this work under the bid item #03304 "BRIDGE OVERLAY APPROACH PAVEMENT".

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

1. **DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2008 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

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

#### 2. MATERIALS.

- **A. Class "M" Concrete.** Use either "M1" or "M2". See Section 601.
- **B. Structural Steel.** Use new, commercial grade steel suitable for welding. The Engineer will base acceptance on visual inspection. See Standard Drawing BJE-001, current edition.
- **C. Stud Anchors.** The armored edge stud anchors are <sup>3</sup>/<sub>4</sub>" x 6" embedded stud shear connectors conforming to ASTM A108, Grade 1015 (Nelson Studs or equal).
- **D. Steel Reinforcement.** Use Grade 60. See Section 602.
- **E. Epoxy Bond Coat.** See Section 511.

#### 3. EQUIPMENT.

- **A. Hammer.** Provide Power driven Hammers lighter than nominal 45 lb. class.
- **B.** Sawing Equipment. Sawing equipment shall be a concrete saw capable of sawing concrete to the specified depth.
- **C. Hydraulic Impact Equipment.** Hydraulic Impact/Skid Steer Type Equipment with a maximum rated striking Energy of 360 ft-lbs are permitted only in areas of concrete removal more than 6 inches away from boundaries of surface areas to remain in service. The Contractor is to provide data information to the engineer on the equipment they wish to utilize to ensure compliance with this note.

#### 4. CONSTRUCTION.

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

place the new Class "M" concrete to the original grade and finish with broom strokes drawn transversely from curb to curb.

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

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

- C. Additional Steel Reinforcement. Furnish for replacement, as directed by the Engineer, 1750 linear feet of #4 steel reinforcing bars in 20' lengths. Place these bars in areas deemed by the Engineer to require additional reinforcement. Field cutting and bending is permitted. Do not place any additional steel reinforcement above the height of the top row of Nelson Studs on the armored edges. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04 prior to pouring the new Class "M" concrete. Deliver unused bars to the Local County Maintenance Barn. Payment will be made in accordance with Section 602.
- **D. Stage Construction.** Installation of concrete and armored edges in two (or more if specified) stages is necessary. Join the armored edges at or near the centerline of the roadway or lane line, field weld and grind smooth.
- **E. Shop Plans.** Shop plans will <u>not</u> be required. The Contractor is responsible for obtaining field measurements and supplying properly sized materials to complete the work.

#### IV MEASUREMENT.

- **A. Armored Edge for Concrete.** The Department will measure the quantity in linear feet from gutterline to gutterline along the face of the bridge end.
- **B. Steel Reinforcement.** See Section 602.

#### V. PAYMENT.

- **A. Armored Edge for Concrete.** Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete and all incidental items necessary to complete the work (except the overlay material) within the specified pay limits as specified by this note and as shown on the attached detail drawings.
- **B. Steel Reinforcement.** See Section 602.

#### SPECIAL NOTE FOR ELIMINATING TRANSVERSE JOINTS ON BRIDGES

This Special Note 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 existing concrete and existing joint material to eliminate the transverse joint. Install additional reinforcing steel and place concrete.

#### 2.0 MATERIALS.

- **A.** Class "M" Concrete. Use either "M1" or "M2". See Section 601.
- **B. Steel Reinforcement.** Use Grade 60. See Section 602.
- **C. Epoxy Bond Coat.** See Section 511.

#### 3.0 EQUIPMENT.

- **A. Hammer.** Provide Power driven Hammers lighter than nominal 45 lb. class.
- **B.** Sawing Equipment. Sawing equipment shall be a concrete saw capable of sawing concrete to the specified depth.
- **C. Hydraulic Impact Equipment.** Hydraulic Impact/Skid Steer Type Equipment with a maximum rated striking Energy of 360 ft-lbs are permitted only in areas of concrete removal more than 6 inches away from boundaries of surface areas to remain in service. The Contractor is to provide data information to the engineer on the equipment they wish to utilize to ensure compliance with this note.

#### 4.0 CONSTRUCTION.

- **A. Remove Existing Materials.** Remove the existing transverse joints, joint filler, and specified areas of concrete as shown on the plans or as directed by the Engineer. Clean and leave all existing steel reinforcement encountered in place. Damaged steel reinforcement will be repaired/replaced as directed by the Engineer at no additional cost to the Department. Dispose of all removed material entirely away from the job site. This work is incidental to the contract unit price for "Eliminate Transverse Joint".
- **B.** Additional Steel Reinforcement. Furnish for this work steel reinforcing bars as shown on the plans. Splice these bars to the existing longitudinal reinforcement in the deck and curb/sidewalk in the areas of removed concrete to tie the slabs together as shown on the plans. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04 prior to pouring the new Class "M" concrete.
- C. Place New Concrete. Blast clean all areas of existing concrete and structural steel to come in contact with new concrete until free of all laitance and deleterious substances immediately prior to the placement of the Class "M" Concrete. The surface areas of existing concrete to come in contact with the new Class "M" Concrete are to be coated with an epoxy bond coat immediately prior to placing new concrete in accordance with Section 511. The interfaces of the new and old concrete shall be as nearly vertical and horizontal as possible.

  Place new Class "M" Concrete to the specified grade and finish to receive the new overlay or as shown on the place. On the sidewalk and our place the new concrete to original grade.

as shown on the plans. On the sidewalk and curb, place the new concrete to original grade and finish to match the existing curb/sidewalk.

#### 5.0 MEASUREMENT.

- **A. Eliminate Transverse Joint.** The Department will measure the quantity in linear feet from plinth to plinth perpendicular to the centerline of the bridge.
- **B.** Steel Reinforcement. See Section 602.

#### 6.0 PAYMENT.

- **A. Eliminate Transverse Joint.** Payment at the contract unit price per linear foot is full compensation for furnishing equipment, labor, tools and materials needed to complete removal and disposal of the specified existing materials, cleaning and straighting of existing steel reinforcement, furnishing and installing the concrete, and all incidental items necessary to complete the work (except the overlay material if specified elsewhere in the contract) within the specified pay limits as indicated on the drawings.
- B. Steel Reinforcement. See Section 602.

#### SPECIAL NOTE FOR USE OF HYDRODEMOLITION METHOD

To be used if the Contractor chooses to use Hydrodemolition method to complete partial and full depth removal. Also see Section 606.03.03.

#### Description

This work consists of bridge surface deck preparation using Hydrodemolition to provide a uniform depth, highly bondable surface and to remove all variable depth, unsound material. This item also includes the removal and disposal of all concrete and debris, vacuuming, shielding, water control, additional jack hammering and all other aspects of work necessary to prepare the deck for the placement of the new latex modified concrete overlay.

#### Equipment

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

Mechanical Scarifying Equipment. The scarifying equipment shall be a power operated mechanical scarifier capable of uniformly scarifying or removing the old concrete or asphalt wearing surface from the bridge deck to the depths required in the plans or as directed by the Engineer. The equipment shall be self-propelled with sufficient power, traction and stability to maintain accurate depth of cut and slope. The equipment shall be capable of accurately and automatically establishing profile grades along each edge of the machine by referencing the existing bridge deck by means of a ski or matching shoe, or from an independent grade control; in addition, it shall be equipped with an integral loading means to remove the material being cut from the bridge deck and to discharge the cuttings into a truck all in a single operation.

Hydro-Demolition Equipment. The Hydrodemolition equipment shall consist of a filtering and pumping unit operating with a self-propelled computerized robot that utilizes a high pressure water jet capable of removing concrete to the depth specified on the plans or as directed by the Engineer and be capable of removing rust and concrete particles from reinforcing steel. The equipment shall provide a rough and bondable surface and remove all unsound concrete during the initial pass. The minimum water usage shall be 43 gal/min operating at 13,000 psi minimum.

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

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

Power Driven Hand Tools. Power driven hand tools and jackhammers will be permitted, but shall not be heavier than the nominal 35 lb class. Chipping hammers shall not be heavier than the nominal 15 lb class. Only hand chipping tools shall be used when removing concrete within 1 in. of reinforcing steel. Mechanically driven tools shall be operated at a maximum angle of 45 degrees from the bridge floor surface.

#### **Construction Methods**

General: Perform Hydrodemolition surface preparation over the entire top surface of the reinforced concrete bridge deck to provide a rough and bondable surface and to remove all unsound concrete during the initial Hydrodemolition surface preparation pass. The use of hand chipping tools, either hand or mechanically driven, shall be limited to trim work and areas inaccessible or inconvenient for the hydro-demolition equipment.

Description: This work shall consist of furnishing the necessary labor, materials and equipment to completely remove the top surface of the Portland cement concrete bridge deck surface in accordance with these Specifications and in reasonably close conformity with the grades, thickness, or sections shown on the Plans or as directed by the Engineer. This work shall include the removal of patches other than sound Portland cement concrete and all loose and unsound concrete by Hydrodemolition; preparation of the sound existing concrete surface; removal, forming and concrete for full depth repairs; blast cleaning or high pressure water cleaning the existing deck prior to placement of the modified concrete overlay; and all other operations necessary to complete this work according to these specifications and to the satisfaction of the Engineer.

#### Preparation of Existing Deck

No operations without reasonably available engineering controls that limit fugitive dust will be acceptable.

The Contractor shall be aware that there are federal, state, regional, and local government agencies that have requirements regarding the control of fugitive dust generated by concrete removal and blasting operations.

The Contractor is responsible for protecting traffic traveling adjacent to and under the work zone while removing bridge deck concrete.

Where the deck is sound for less than one third of its original depth, the concrete shall be removed full depth for limited areas as designated by the Engineer. Full depth repairs shall be completed as specified for Full Depth Repair.

#### Removal of Existing Asphaltic Concrete Overlays

If an existing asphaltic concrete overlay is present upon the original bridge deck surface to be prepared by Hydrodemolition, the overlay and any waterproofing material that was part of the deck must be removed, and the bridge deck cleaned, prior to commencement of the Hydrodemolition operation. The Contractor may utilize conventional scarifying equipment conforming to these specifications to remove the existing bituminous overlay and waterproofing material from the original bridge deck. Acceptable depth of scarification shall be the overlay and waterproofing material thickness plus ¼" below the original bridge deck surface. Additional removal depth of existing deck concrete is permitted by mechanical scarification provided. Total surface Hydrodemolition is used to provide a highly bondable surface and to remove partial depth deteriorated concrete.

If the use of mechanical scarifying equipment results in the snagging of the top mat of steel reinforcement, the scarifying equipment shall be immediately stopped and the depth of removal adjusted. Damaged or dislodged reinforcing steel shall be repaired or replaced at the Contractor's expense. Replacement shall include the removal of any additional concrete required to position the new reinforcing steel at the correct height and required lap splice lengths.

#### Removal of Existing Modified Concrete Overlays

If an existing modified concrete overlay is present upon the original bridge deck surface to be prepared by Hydrodemolition, the overlay material that was part of the deck must be removed, and the bridge deck cleaned, prior to commencement of the Hydrodemolition operation. The Contractor may utilize conventional scarifying equipment conforming to these specifications to remove the existing concrete overlay from the original bridge deck. Acceptable depth of scarification shall be the overlay thickness plus ¼" below the original bridge deck surface. Additional removal depth of existing deck concrete is permitted by mechanical scarification provided. Total surface Hydrodemolition is used to provide a highly bondable surface and to remove partial depth deteriorated concrete.

Existing overlay material which is sound and bonded may be left in patch areas with approval of the Project Engineer. If determined the existing patches are to be removed, jackhammers, not to be heavier than the nominal 35 lb class shall be used to remove debonded areas.

If the use of mechanical scarifying equipment results in the snagging of the top mat of steel reinforcement, the scarifying equipment shall be immediately stopped and the depth of removal adjusted. Damaged or dislodged reinforcing steel shall be repaired or replaced at the Contractor's expense. Replacement shall include the removal of any additional concrete.

#### Bridge Decks with No Existing Concrete Overlay

If Hydrodemolition is to be performed on an original bridge deck surface without a bituminous or concrete bridge deck overlay, the Contractor may use mechanical scarification equipment conforming to these specifications to remove an initial portion of the hydro-demolition depth. The scarification depth shall be ¼". Total surface Hydrodemolition is used to provide a highly bondable surface and to remove partial depth deteriorated concrete.

If the use of mechanical scarifying equipment results in the snagging of the top mat of steel reinforcement, the scarifying equipment shall be immediately stopped and the depth of removal adjusted. Damaged or dislodged reinforcing steel shall be repaired or replaced at the Contractor's expense. Replacement shall include the removal of any additional concrete required to position the new reinforcing steel at the correct height and required lap splice lengths.

#### Concrete Removal by Hydro-Demolition

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

With the use of Hydrodemolition surface preparation, the requirement to provide a minimum 3/4" clearance around all reinforcing steel that is more than 50% exposed is waived, providing that the existing concrete is sound. The amount of steel exposed shall be kept to a minimum.

Damaged or dislodged reinforcing steel shall be repaired or replaced at the Contractor's expense. Replacement shall include the removal of any additional concrete required to position the new reinforcing steel at the correct height and to provide the required lap splice lengths as required.

Calibration: Prior to commencement of the Hydrodemolition removal operation, the Hydrodemolition equipment shall be calibrated on an existing sound concrete surface as designated by the Engineer. The calibration area shall be a minimum of 7 feet wide by 7 feet long to demonstrate the desired result of this specification.

Move the Hydrodemolition equipment to a second area (7'x7') that is unsound as designated by the Engineer to demonstrate the desired result of this specification which is providing a highly rough and bondable surface and removing all unsound concrete during the initial pass is being achieved.

The Engineer shall verify the following settings:

- 1. Water pressure gauge (13,000 psi minimum)
- 2. Machine staging control (step)
- 3. Nozzle size
- 4. Nozzle speed (travel)
- 5. Depth of removal
- 6. Minimum water usage (43 gallons per minute)

During the Hydrodemolition operations of any or all of the above settings may be modified in order to achieve removal of all unsound concrete and to provide a highly bondable surface. The settings may be changed by the Contractor to achieve total removal of unsound concrete, but the Engineer must be notified of all changes. The Engineer may change any or all of the settings in order to achieve the desired results with Hydrodemolition. The removals and depth shall be verified, as necessary, and at least every

30 feet along the cutting path. The readings shall be documented and, if necessary, the equipment recalibrated to insure the Hydrodemolition process achieves the desired results and removal of unsound concrete.

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

Debris and Fluid Containment: Prior to commencement of the Hydrodemolition operation, the Contractor shall submit a plan for approval to the engineer for control and filtering of all water discharged during operation. The Contractor, at a minimum, shall block all drains on the deck and install aggregate dams every 150 feet; 6 inches high by 1 foot wide minimum, to strain runoff. The deck shall be used as a settlement basin within itself unless an alternate method of water control, satisfactory to the Engineer and meeting the environmental requirements of any associated Regulatory Agency, is required.

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

#### Cleaning

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

#### Resounding

After the Hydrodemolition operation has completed the removal, and the deck is cleaned and allowed to dry, the deck shall be resounded to assure that the all unsound concrete deck material has been removed. The final sounding of the deck shall be done by the Engineer and shall be performed only when the entire deck is completely dry. In no case shall the final sounding be made unless the deck is dry and frost-free. Final sounding shall consist of as many successive resounding as required to ensure that all deteriorated and fractured concrete has been removed. Additional removal shall be performed with 35 lb maximum weight jackhammers operated at an angle of no more than 45 degrees from horizontal. Aerosol spray paint for outlining and sounding chains shall be provided by the Contractor.

#### Full Depth Repair

Where the deck is sound for less than one third of its original depth, the concrete shall be removed full depth except for limited areas as may be designated by the Engineer. Forms shall be provided to support concrete placed in full depth repair areas. The forms for areas of up to 4 square feet may be suspended from wires from the reinforcing steel. For areas greater than 4 square feet, the forms shall be suspended from the primary members of the superstructure or by shoring below. Areas of full depth repair shall have the concrete faces and reinforcing steel cleaned. Only those areas marked in the field by the Engineer as full depth repair will be paid for as full depth repair.

#### Preparation Prior to Overlay Placement

Vehicles other than approved construction equipment will not be permitted on those sections of the deck where Hydrodemolition has begun. Contamination of the deck by construction equipment or from any other source shall be prevented.

#### Method of Measurement

Wearing Course Removed Asphalt shall be measured as the actual square yards of the existing asphalt wearing course and waterproofing material removed and shall include all labor, materials and equipment required to complete the work.

Existing Modified Concrete Overlay Removed shall be measured as the actual square yards of the existing concrete overlay removed and shall include all labor, materials and equipment required to complete the work.

Surface Preparation Using Hydrodemolition shall be measured as the actual deck area in square yards overlaid and shall include the costs of surface preparation, Hydrodemolition, ¼" (min.) milling into the original concrete bridge deck surface, removal of the surface preparation debris, cleaning, any incidental materials, and all labor and equipment as necessary to complete the work as described in this specification, but not specifically included in other items for payment.

Full Depth Repair when encountered on a bridge deck and marked in the field by the Engineer, full depth repair shall be paid for per Cubic Yard of Class M Concrete used.

#### **Basis of Payment**

Payment for completed and accepted quantities as measured above will be made at the contract price for one of the following:

Item Unit Description

08510 Square yard Rem Epoxy Bit Foreign Overlay

24094EC Cubic yard Partial Depth Patching

Removal of existing flexible (asphalt) concrete overlays and rigid modified concrete overlays are included as parts of this work if the above bid items are part of the project plans:

#### NOTES FOR BRIDGE PIER AND EXTERIOR BEAM CONCRETE PATCHING

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

**I. DESCRIPTION.** Perform all work in accordance with the Department's 2008 Standard Specifications, and applicable Supplemental Specifications, the attached sketches, and these Notes. Section references are to the Standard Specifications.

This work consists of: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing spalled/delaminated concrete; (3) Prepare the existing surface for concrete patching; (4) Place hook fasteners and welded wire fabric over surfaces to be repaired (where applicable); (5) Apply concrete patching as specified by this note and as shown on the attached detail drawings; (6) Finish and cure the new Concrete Patches; (7) Maintain & control traffic; and, (8) Any other work specified as part of this contract.

#### II. MATERIALS.

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

#### III. CONSTRUCTION.

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

Concrete removal shall be accomplished by chipping with hand picks, chisels or light duty pneumatic or electric chipping hammers (not to exceed 15 lbs.). If sound concrete is encountered before existing reinforcing steel is exposed, the surface shall be prepared and repaired without further removal of the concrete. When corroded reinforcing steel is exposed, concrete removal shall continue until there is a minimum ¾ inch clearance around the exposed, corroded reinforcing bar. Care shall be taken to not damage bond to adjacent non-exposed reinforcing steel during concrete removal processes.

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

After all deteriorated concrete has been removed; the repair surface to receive concrete patching shall be prepared by abrasive blast cleaning. Abrasive blast

cleaning shall remove all fractured surface concrete and all traces of any unsound material or contaminants such as oil, grease, dirt, slurry, or any materials which could interfere with the bond of freshly placed concrete.

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

**B. Steel Reinforcement.** All corroded reinforcing steel exposed during concrete removal shall have corrosion products removed by abrasive grit blasting or wire brush whichever is more appropriate. Furnish for replacement, as directed by the Engineer, 200 linear feet of steel reinforcing bars ½" diameter by 20-foot lengths. Place these bars in areas deemed by the Engineer to require additional reinforcement. Field cutting and bending is permitted. Deliver unused bars to the nearest County Maintenance Barn. Payment will be made in accordance with Section 602.

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

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

Welded wire fabric (WWF) shall be provided as shown on the attached sketches and at each repair area larger than 1 square foot if the depth of the repair exceeds 3 inches from the original dimension of the repaired member. Sheets of adjoining WWF shall be lapped by at least one and one-half spaces at all intersections, in both directions, and be securely fastened. WWF fabric shall be supported no closer than ½ inch to the prepared concrete surface and shall have a minimum concrete cover of 1.5 inches.

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

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

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

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

- **D.** Concrete Patching. Place and finish the new concrete for the patching area in accordance with the manufacturer's recommendations, as shown on the attached detail drawings, or as directed by the Engineer. The Engineer shall approve the Contractor's method of placing and consolidating the concrete prior to the beginning of this operation.
- **E**. **Curing.** On completion of finishing operation, patching concrete shall immediately be prevented from drying out and cracking by fogging, wetting, and/or any appropriate method approved by the Engineer. Curing shall continue for duration recommended by the product manufacturer.

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

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

#### IV. MEASUREMENT

- **A. Concrete Patching.** The Department will measure the quantity per cubic feet of each area restored.
- **B. Steel Reinforcement.** See Section 602.
- C. Welded Wire Fabric & Hook Fasteners. Welded Wire Fabric and Hook Fasteners will not be measured for payment, but shall be considered incidental to "Concrete Patching Repair".

#### V. PAYMENT

- A. Concrete Patching Repair. Payment at the contract unit price per square feet is full compensation for the following: (1) Furnish all labor, materials, tools, equipment; (2) preparation of specified bents including removing and disposing of specified existing materials; (3) place, finish and cure new concrete patches; and (4) all incidentals necessary to complete the work as specified by this note and as shown on the attached detail drawings.
- **B. Steel Reinforcement.** See Section 602.

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

## SPECIAL NOTE FOR CONTRACT COMPLETION DATE AND LIQUIDATED DAMAGES ON BRIDGE REPAIR CONTRACTS

**I. COMPLETION DATE.** The Contractor has the option of selecting the starting date for this Contract. Once selected, notify the Department in writing of the date selected at least two weeks prior to beginning work. All work is to be completed by November 15, 2012. An allotted number of Calendar days are assigned to each structure in this contract as shown below.

STRUCTURE NO. OF CALENDAR DAYS COMPLETION DATE

026B00062N 30 November 15, 2012

Contrary to Section 108.07.02, the Engineer will begin charging calendar days for a structure on the day the Contractor starts work or sets up traffic control on that particular structure.

**II. LIQUIDATED DAMAGES**. Liquidated damages will be assessed the Contractor in accordance with the Transportation Cabinet, Department of Highway's 2008 Standard Specifications for Road and Bridge Construction, Section 108.09, when either the allotted number of calendar days or the November 15, 2012 date is exceeded.

Contrary to the Standard Specifications, liquidated damages will be assessed the Contractor during the months of December, January, February and March when the contract time has expired on any individual bridge or bridges. Contract time will be charged during these months.

All construction must be completed in accordance with the weather limitations specified in Section 606 and/or Section 601 as applicable. No extension of Contract time will be granted due to inclement weather or temperature limitations that occur due to starting work on the Contract or a structure late in the construction season.

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

#### I. TRAFFIC CONTROL GENERAL

Except as provided herein, traffic shall be maintained in accordance with the 2008 Standard Specifications, Section 112. 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 new condition, at the beginning of the work and maintained in like new condition until completion of the work.

#### II. TRAFFIC COORDINATOR

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

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

#### III. SIGNS

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

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

#### IV. TEMPORARY PAVEMENT STRIPING

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

#### V. PROJECT PHASING & CONSTRUCTION PROCEDURES

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

Structure Clear Lane Width 026B00062N 13 feet

The Contractor shall phase the work so that the joint between concrete pours is located on the centerline of the Parkway.

Parkway lane closures will not be permitted on these days:

Easter Weekend (Thursday-Sunday)

Memorial Day Weekend (Friday-Monday)

Independence Day, when July 4th is on Tuesday, Wednesday, or Thursday; or

Independence Day Weekend, when July 4<sup>th</sup> is on Monday (Saturday-Monday) or Friday (Friday-Sunday)

Labor Day Weekend (Friday-Monday)

#### VI. BARRIER WALL

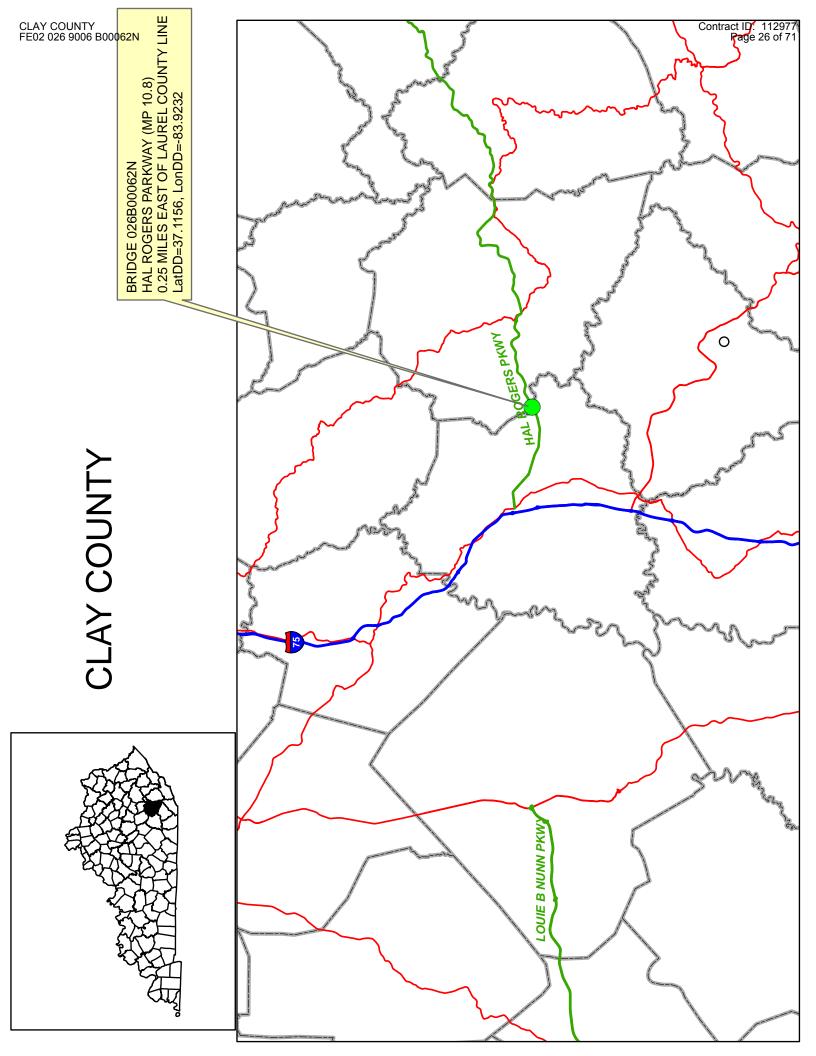
Payment of the contract unit price per linear foot for "CONCRETE BARRIER WALL TYPE 9T" shall be full compensation for furnishing, installing, maintaining, adjusting alignment as needed, removing the barrier when no longer needed, and all incidental items necessary to complete the work.

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

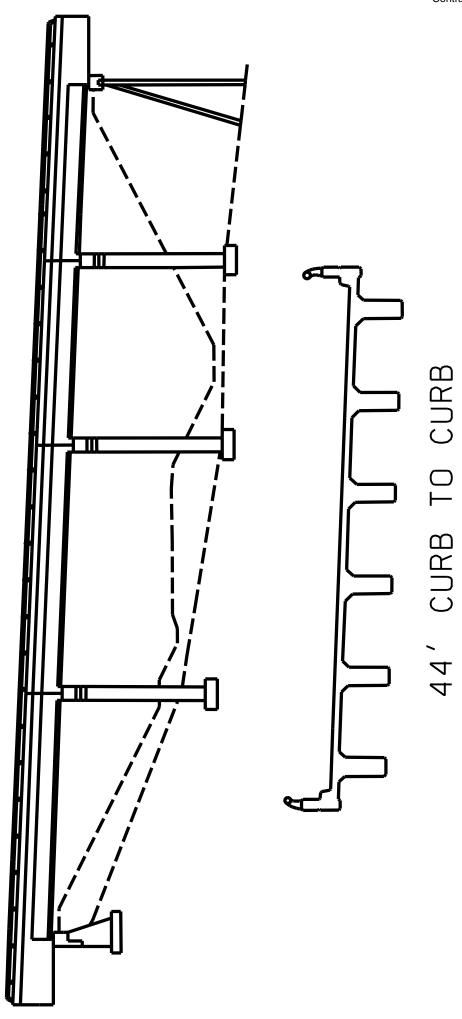
#### VII. CRASH CUSHION / END TREATMENTS

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

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

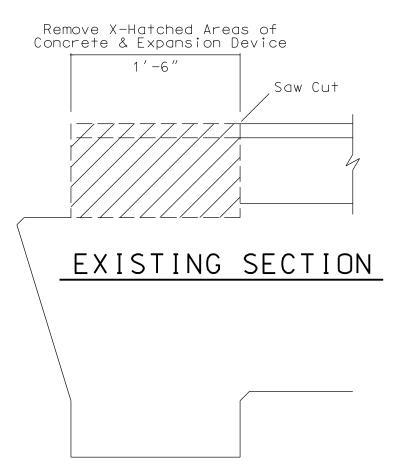


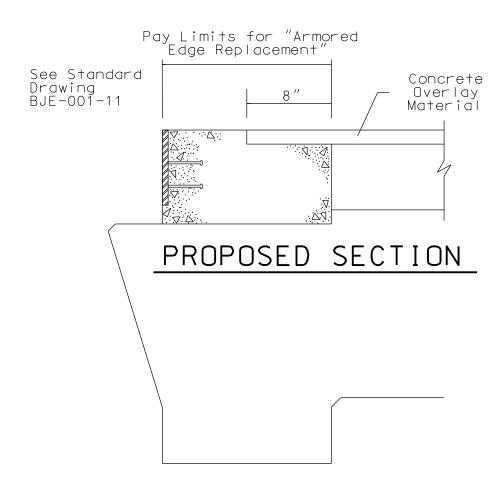
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CLAY COUNTY FE02 026 9006 B00062N Contract ID: 112977 Page 28 of 71

### ARMORED EDGE DETAIL

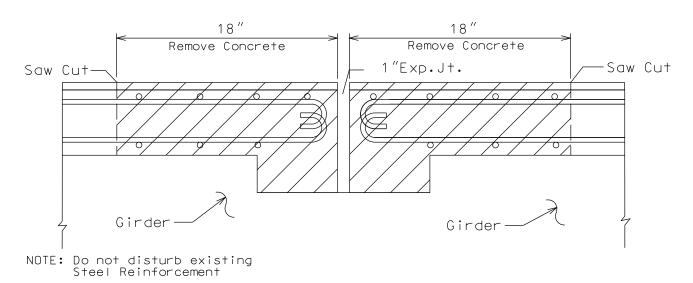




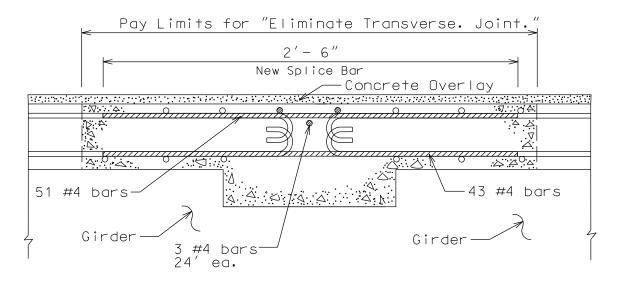
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FE02 026 9006 B00062N

ELIMINATE TRANSVERSE JOINT DETAIL

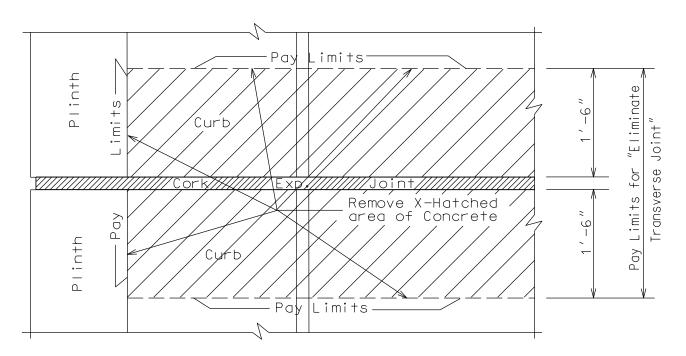


## EXISTING SECTION e Transverse Joint

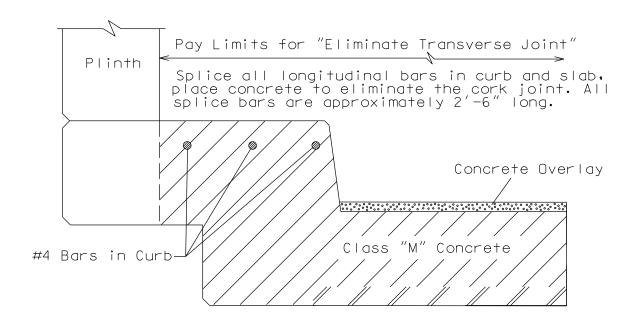


PROPOSED SECTION @ Transverse Joint

## ELIMINATE TRANSVERSE JOINT DETAIL



#### EXISTING PLAN VIEW @ CURB



PROPOSED SECTION @ CURB

#### SPECIAL NOTE FOR PRE-BID CONFERENCE CLAY COUNTY HAL ROGERS PARKWAY (MP 10.8) CID 112977

The Department will conduct a **Non-mandatory** Pre-Bid Conference for the subject project September 13, 2011 at 9:00 AM. at;

Transportation Cabinet Building 200 Mero Street Frankfort, Ky 40622

Any company that is interested in bidding on the subject project or being part of a joint venture is encouraged to attend.

Meeting minutes will be provided on the Department's website for those unable to attend.

The purpose of the conference is to familiarize all prospective bidders with the contract requirements.

Department of Highways officials present at the conference will answer questions concerning the projects.

### PART II

#### SPECIFICATIONS AND STANDARD DRAWINGS

#### **SPECIFICATIONS REFERENCE**

Any reference in the plans or proposal to 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 July15, 2011 Letting)

CLIDGECTION	101.02 All models
SUBSECTION: REVISION:	101.02 Abbreviations.  Insert the following abbreviation and text into the section:
REVISION.	insert the following above viation and text into the section.
	KEPSC Kentucky Erosion Prevention and Sediment Control
SUBSECTION:	101.03 Definitions.
REVISION:	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.
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SUBSECTION: REVISION:	102.03 Contents of the Bid Proposal Form.  Replace the first sentence of the first paragraph with the following:
REVISION.	The Bid Proposal form will be available on the Department internet website
	(http://transportation.ky.gov/contract/).
	Delete the constant and a second
	Delete the second paragraph.
	Delete the last paragraph.
SUBSECTION:	102.04 Issuance of Bid Proposal Form.
REVISION:	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.
SUBSECTION: REVISION:	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.
SUBSECTION: REVISION:	102.07.01 General.
REVISION:	Replace the first sentence with the following:
	Submit the Bid Proposal on forms furnished on the Bid Express Bidding Service website (www.bidx.com).
	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 July15, 2011 Letting)

SUBSECTION:	102.07.02 Computer Bidding.
REVISION:	Replace the first paragraph with the following:
	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.
	Delete the second and third paragraph.
SUBSECTION: REVISION:	102.08 Irregular Bid Proposals.  Delete the following from the first paragraph: 4) fails to submit a disk created from the Highway Bid Program.
	Replace the second paragraph with the following: The Department will consider Bid Proposals irregular and may reject them for the following reasons:
	<ol> <li>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>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>any failure to comply with the provisions of Subsection 102.07; or</li> <li>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>
SUBSECTION: REVISION:	102.09 Bid Proposal Guaranty. Insert the following after the first sentence:
	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.
SUBSECTION: REVISION:	102.10 Delivery of Bid Proposals. Replace paragraph with the following:
	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.
SUBSECTION: REVISION:	102.11 Withdrawal or Revision of Bid Proposals. Replace the paragraph with the following:
	Bid Proposals can be withdrawn in accordance the requirements of the Bid Express Bidding Service prior to the time of the Letting.

# Supplemental Specifications to The Standard Specifications for Road and Bridge Construction, 2008 Edition (Effective with the July15, 2011 Letting)

GT:DGT:GTT:GT:	Locate Data Control
SUBSECTION:	102.13 Public Opening of Bid Proposals.
REVISION:	Replace Heading with the following: 102.13 Public Announcement of Bid Proposals.
	102.13 I done Almodification of Bid I toposais.
	Replace the paragraph with the following:
	The Department will publicly announce all Bid Proposals at the time indicated in the Notice to
	Contractors.
SUBSECTION:	103.02 Award of Contract.
REVISION:	Replace the first sentence of the third paragraph with the following:
	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.
CIDCECTION	105 02 Diagrand Washing Descriptor
SUBSECTION: REVISION:	105.02 Plans and Working Drawings.  Insert the following after the fourth paragraph:
REVISION.	insert the following after the fourth paragraph.
	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.
	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.
	are 211.5500 511 mining. 20 not organ work and shop drawings are 10110 wed and approved.
SUBSECTION:	105.03 Record Plans.
REVISION:	Replace the section with the following:
	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 of 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.
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#### **Supplemental Specifications to The Standard Specifications for Road and Bridge Construction, 2008 Edition**

(Effective with the July15, 2011 Letting)

#### SUBSECTION: REVISION:

105.12 Final Inspection and Acceptance of Work.

Insert the following paragraphs after the first paragraph:

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.

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.

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.

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.

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.

Replace the following in the second sentence of the second paragraph:

Replace Section 213 with Section 212.

Delete the fifth paragraph from the section.

#### SUBSECTION: REVISION:

105.13 Claim Resolution Process.

Replace the last sentence of the 3. Bullet with the following:

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.

Delete the last paragraph from the section.

#### **Supplemental Specifications to The Standard Specifications for Road and Bridge Construction, 2008 Edition**

(Effective with the July15, 2011 Letting)

#### SUBSECTION: REVISION:

106.04 Buy America Requirement.

Replace the section with the following:

**106.04 Buy America Requirement.** 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:

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

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

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

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

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

Use foreign materials only under the following conditions:

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

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

#### SUBSECTION: REVISION:

106.10 Field Welder Certification Requirements.

Insert the following sentence before the first sentence of the first paragraph:

All field welding must be performed by a certified welder unless otherwise noted.

#### SUBSECTION: REVISION:

108.02 Progress Schedule.

Insert the following prior to the first paragraph:

Specification 108.02 applies to all Cabinet projects except the following project types:

- Right of Way Mowing and/or Litter Removal
- Waterborne Paint Striping
- Projects that contain Special Provision 82
- Projects that contain the Special Note for CPM Scheduling

Insert the following paragraph after paragraph two:

Working without the submittal of a Written Narrative is violation of this specification and additionally voids the Contractor's right to delay claims.

Insert the following paragraph after paragraph six:

The submittal of bar chart or Critical Path Method schedule does not relieve the Contractor's requirement to submit a Written Narrative schedule.

	Insert the following at the beginning of the first paragraph of A) Written Narrative.:
	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> ).
	Replace Part A) Written Narrative 1. And 2. with the following:
	<ol> <li>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>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>
SUBSECTION: REVISION:	109.07.01 Liquid Asphalt. Add the following to the Adjustable Contract Items:  Stone Matrix Asphalt for Base Stone Matrix Asphalt for Surface
SUBSECTION: REVISION:	110.01 Mobilization. Replace paragraph three with the following:
	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.
SUBSECTION: REVISION:	110.02 Demobilization. Replace the third paragraph with the following:
	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.
SUBSECTION: REVISION:	110.04 Payment.  Insert the following paragraph following the demobilization payment schedule (4 <sup>th</sup> paragraph):
	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.

SUBSECTION: REVISION:	112.03.01 General Traffic Control. Replace paragraph three with the following:
	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.
SUBSECTION:	112.03.11 Temporary Pavement Markings.
PART: REVISION:	B) Placement and Removal of Temporary Striping. Replace the 2 <sup>nd</sup> sentence of the first paragraph with the following:
THE VISION	
	On interstates and parkways, and other roadways approved by the State Highway Engineer, install pavement striping that is 6 inches in width.
SUBSECTION:	112.03.12 Project Traffic Coordinator (PTC).
REVISION:	Add the following at the end of the subsection:
	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.
SUBSECTION: REVISION:	112.03.15 Non-Compliance of Maintain and Control of Traffic. Add the following section:
	112.03.15 Non-Compliance of Maintain and Control of Traffic. 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.
	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.
	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:
	A) Long-term stationary work that occupies a location more than 3 days.
	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.
	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.
	7 Days after Notification \$2,000 daily penalty or double the contract liquidated damages daily charge rate in Section 108.09, whichever is greater.

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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.

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.

C) Short-term stationary is work that occupies a location for more than 1 hour within a single 24-hour period.

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.

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.

#### SUBSECTION:

206.03.02 Embankment

**REVISION:** 

Replace the last paragraph with the following:

When rock roadbed is specified, construct the upper 2 feet of the embankment according to Subsection 204.03.09 A).

#### SUBSECTION: REVISION:

213.03.03 Inspection and Maintenance.

Replace the last sentence of the second paragraph with the following:

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.

Insert the following paragraph after the second paragraph:

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.

SUBSECTION: PART: REVISION:	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 (Setaria italica), 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.
SUBSECTION: PART:	213.03.05 Temporary Control Measures. F) Temporary Mulch.
REVISION:	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 in installed.
SUBSECTION: REVISION:	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.
SUBSECTION: PART:	401.02.04 Special Requirements for Dryer Drum Plants. F) Production Quality Control.
REVISION:	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.
SUBSECTION: REVISION:	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:  1) Injection equipment computer controls are automatically coupled to the plants controls (manual operation is not permitted);  2) Injection equipment has provided a controls that introduce water ratios based on production.
	Injection equipment has variable controls that introduce water ratios based on production rates of mixtures;
	<ul> <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> </ul>
SUBSECTION: REVISION:	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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#### SUBSECTION: REVISION:

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:

MIXING AND LAYING TEMPERATURES (°F)						
Material		Minimum	Maximum			
Aggregates		240	330			
Aggregates used with Recycle (RAP)	d Asphalt Pavement	240	_			
Asphalt Binders	PG 64-22	230	330			
	PG 76-22	285	350			
Asphalt Mixtures at Plant	PG 64-22 HMA	250	330			
(Measured in Truck)	PG 76-22 HMA	310	350			
	PG 64-22 WMA	230	275			
	PG 76-22 WMA	250	300			
Asphalt Mixtures at Project	PG 64-22 HMA	230	330			
(Measured in Truck	PG 76-22 HMA	300	350			
When Discharging)	PG 64-22 WMA	210	275			
	PG 76-22 WMA	240	300			

#### SUBSECTION: REVISION:

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.

#### SUBSECTION REVISION:

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.

#### SUBSECTION: REVISION:

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.

#### SUBSECTION: REVISION:

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 sublot and average the sublot 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.

SUBSECTION:	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP.				
PART: REVISION:	C) Conventional and RAP Mixtures Placed on Shoulders. Replace Title and Text with the following:				
112 / 20101 (					
	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.				
SUBSECTION:	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP.				
PART:	D) Conventional and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge.				
REVISION:	Replace the title with the following:  D) HMA, WMA, and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge.				
	b) Tivil 1, with 1, and full infinites Traced Profit including as Tisphare Favorione weage.				
	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.				
	Department win pay as manimic inficure out use a 1100 pay value for an properties.				
SUBSECTION:	402.05.02 Asphalt Mixtures for Temporary Pavement.				
PART: REVISION:	E) Asphalt Mixtures for Temporary Pavement.  Replace E) Asphalt Mixtures for Temporary Pavement with the following:				
RE VISIOI (					
	D) Asphalt Mixtures for Temporary Pavement.				
SUBSECTION:	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP.				
PART: TABLES:	Lot Pay Adjustment Schedule, Compaction Option A, Base and Binder Mixtures VMA				
REVISION:	Replace the VMA table with the following:				
	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.				
	(I) > 1.0 below min.				
SUBSECTION:	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP.				
PART:	Lot Pay Adjustment Schedule, Compaction Option A, Surface Mixtures				
TABLES:	VMA				
REVISION:	Replace the VMA table with the following:				
	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.				

SUBSECTION: PART: TABLE: REVISION:	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:							
			V	MA		1		
			Pay Value	De	viation	1		
				From	Minimum			
			0.95		n. VMA	4		
				1	min.			
			(2)	0.00	below min.			
				> 1.0 t	elow min.			
SUBSECTION: PART: NUMBER:	403.03.03 Prep C) Mix Design 1) Preliminary	Criteria.	ture.					
REVISION:			s of the paragraph ar	nd table	with the f	ollowing:		
	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:							
						er of Gyr		]
		Class 2	ESAL's (millio	ons)	N <sub>initial</sub>	$N_{ m design}$ 50	$N_{\text{max}}$ 75	-
		3	3.0 to < 30.0	)	7	75	115	-
		4	≥ 30.0		8	100	160	]
SUBSECTION: PART: REVISION:	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.							
SUBSECTION: PART:	403.03.09 Leveling and Wedging, and Scratch Course.  B) Scratch Course.							
REVISION:	· /		of the first paragraph	with the	e followii	ng:		
	Conform to the gradation requirements (control points) of AASHTO M 323 for base, binder, or surface as the Engineer directs.							
SUBSECTION: REVISION:	407.01 DESCRIPTION.  Replace the first sentence of the paragraph with the following:							
REVISION:	Replace the first sentence of the paragraph with the following:  Construct a pavement wedge composed of a hot-mixed or warm-mixed asphalt mixture.							
SUBSECTION:	409 01 DESCR	IPTION						
REVISION:	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.							
SUBSECTION: REVISION:	410.01 DESCRIPTION. Delete the second sentence of the paragraph.							

SUBSECTION:	410.03.01 Corrective Work.				
REVISION:	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.				
	in respect to texture, appearance, and skid resistance.				
~~~~					
SUBSECTION: PART:	410.03.02 Ride Quality. B) Requirements.				
NUMBER:	1) Category A.				
REVISION:	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.				
SUBSECTION:	410.03.02 Ride Quality.				
PART:	B) Requirements.				
NUMBER: REVISION:	2) Category B.  Replace the second and third sentence of the first paragraph with the following:				
KE VISIOIV.	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.				
	of \$\psi \text{of per off lame time section may be applied in field of corrective work.}				
SUBSECTION:	410.05 PAYMENT.				
REVISION:	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.				
SUBSECTION:	413.05.02 CL3 SMA BASE 1.00D PG76-22.				
REVISION:	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.				
GLIDGE GETON	442.07.02 GV.0.014 D.4.07 1.00D DG 54.02				
SUBSECTION: TABLE:	413.05.02 CL3 SMA BASE 1.00D PG 76-22. JOINT DENSITY TABLE				
REVISION:	Replace the joint density table with the following:				
	A A ME DENOMAL				
	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				
	(I) < 91.0 or > 97.5				
GLIDGE CETAL	412.05.02.01.2.01.4.01.DE.0.50.4.DC.76.20. 1.01.2.01.4.01.DE.0.20.4.DC.76.20.				
SUBSECTION: REVISION:	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 establish the Let Department of the United States of				
	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.				
	F.D				
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SUBSECTION: TABLE: REVISION:	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:				
			DENSITY		ı
		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	1
		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		]
SUBSECTION: REVISION:	501.05.02 Ride ( Add the followin		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.				
SUBSECTION: REVISION:	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.				
SUBSECTION: REVISION:	505.04.04 Detect Replace the para	table Warnings.	llowing:		
	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.				
SUBSECTION: REVISION:	505.05 PAYMENT. Add the following to the bid item table:				
	<u>Code</u> 23158ES505	Pay Item Detectable W	Pay Unit Square Foot	t	
SUBSECTION: REVISION:	509.01 DESCRII Replace the seco	PTION. nd paragraph with	n the following:		
	Research Program the Standard Dra length, material,	m (NCHRP) 350 wings. Obtain the drain slot dimenset or less from the	e of similar units that conf Test Level 3 (TL-3) require Engineers approval priorions and locations typical ENCHRP 350 TL-3 for Te	rements and the typical r to use. Ensure the bar features are met and the	features depicted by rier wall shape, e reported maximum

SUBSECTION: REVISION:	601.03.02 Concrete Producer Responsibilities. Replace the first sentence with the following:
	Obtain the concrete from producers that are in compliance with KM 64-323 and on the Department's List of Approved Materials.
	Add the following to the first paragraph:
	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.
SUBSECTION: PART: REVISION:	601.03.02 Concrete Producer Responsibilities. B) Certified Personnel. Replace the second sentence with the following:
	Ensure that the concrete technicians are certified as ACI Level I (Level I) and KRMCA Level II (Level II).
SUBSECTION: PART:	601.03.02 Concrete Producer Responsibilities. C) Quality Control.
REVISION:	Replace the second sentence with the following:
	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.
SUBSECTION: PART:	601.03.02 Concrete Producer Responsibilities. D) Producer Testing.
REVISION:	Replace with the following:
	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.
SUBSECTION: PART:	601.03.02 Concrete Producer Responsibilities. E) Trip Tickets.
REVISION:	Replace the second sentence with the following:
	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.
SUBSECTION: PART: NUMBER: REVISION:	601.03.03 Proportioning and Requirements. C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures 2) Mineral Admixtures. Replace the second sentence with the following:
	Reduction of the total cement content by a combination of mineral admixtures will be allowed, up to a maximum of 40 percent.

CLIDCE CTION.	(01.02.02 Proportioning and Propring and
SUBSECTION: PART:	601.03.03 Proportioning and Requirements. C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures
NUMBER:	2) Mineral Admixtures.
LETTER:	a) Fly Ash.
REVISION:	Delete the last sentence of the third paragraph.
	1 6 .1
SUBSECTION:	601.03.03 Proportioning and Requirements.
PART:	C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures
NUMBER:	2) Mineral Admixtures.
LETTER:	b) Ground Granulated Blast Furnace Slag (GGBF Slag).
REVISION:	Delete the second sentence of the third paragraph.
SUBSECTION:	601.03.03 Proportioning and Requirements.
PART:	E) Measuring.
REVISION:	Add the following sentence:
	Conformate the individual insurations we take the technique telegraphs in American
	Conform to the individual ingredient material batching tolerances in Appendix A.
SUBSECTION:	601.03.09 Placing Concrete.
PART:	A) General.
REVISION:	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.
	Tongaio groater than 20 reet.
	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.
CTIP CTI CTITO I	(05.00.05 F
SUBSECTION:	605.02.05 Forms. Delete the last sentence.
REVISION:	Defete the fast sentence.
SUBSECTION:	605.03.04 Tack Welding.
REVISION:	Replace with the following:
	The Department does not allow tack welding.
SUBSECTION:	606.02.11 Coarse Aggregate.
REVISION:	Replace with the following:
	1
	Conform to Section 805, size No. 8 or 9-M.
CLIDCE CTION.	609.03.04 Expansion and Fixed Joints.
SUBSECTION: PART:	D) Preformed Neoprene Joint Seals.
REVISION:	Replace the last sentence of paragraph seven with the following:
112 / 1010111	
	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.
SUBSECTION:	609.03.09 Finish with Burlap Drag.
REVISION:	Delete the entire section.
SUBSECTION:	609.04.06 Joint Sealing.
REVISION:	Replace Subsection 601.04 with the following:
112 / 1010111	replace successful out of man the following.
	Subsection 606.04.08.

GLIDGEGETON	(00.05 P
SUBSECTION: REVISION:	609.05 Payment. Replace the Pay Unit for Joint Sealing with the following:
KEVISION:	Replace the Lay Onit for Joint Scannig with the following.
	See Subsection 606.05.
SUBSECTION:	701.03.06 Initial Backfill.
REVISION:	Replace the first sentence of the last paragraph with the following:
	When the Contract specifies, perform quality control testing to verify compaction according to KM 64-
	512.
SUBSECTION:	701.03.08 Testing of Pipe.
REVISION:	Replace and rename the subsection with the following:
	<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.
	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.
	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.  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.
	The Cabinet may elect to conduct Quality Assurance verifications of any pipe inspections.
SUBSECTION:	701.04.07 Testing.
REVISION:	Replace and rename the subsection with the following:
	•
	<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.

SUBSECTION: 7 TABLE: H	701.05 PAYMENT PIPE DEFLECTION DETERMII				
		23131ER701 Pipeline Video Inspection Linear Foot  701.05 PAYMENT PIPE DEFLECTION DETERMINED BY CAMERA TESTING Replace this table with the following table and note:			
		PIPE DEFLE	CTION		
	Amount of Deflection	(%)	Payment		
	0.0 to 5.0		100% of the Unit Bid Price		
	5.1 to 9.9		50% of the Unit Bid Price (1)		
	10 or greater		Remove and Replace		
'	(1) Provide Structural Analysi allowed to remain in place at the		Based on the structural analysis, pipe may be		
TABLE: HEVISION: I	701.05 PAYMENT PIPE DEFLECTION DETERMINED BY MANDREL TESTING Delete this table.				
	713.02.01 Paint.				
REVISION:	Replace with the following:				
	Conform to Section 842 and Section 846.				
	713.03 CONSTRUCTION.				
REVISION:	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.				
	713.03.03 Paint Application. Replace the second paragraph with the following table:				
[	Material	Paint Application			
	4 inch waterborne paint	Min. of 16.5 gallon			
	6 inch waterborne paint	Min. of 24.8 gallons			
SUBSECTION: 7	6 inch durable waterborne paint 713.03.04 Marking Removal.	Min. of 36 gallons/r	mile Min. of 6 pounds/gallon		
	Replace the last sentence of the p	aragraph with the follo	wing:		
7	Vacuum all marking material and removal debris concurrently with the marking removal operation.				
SUBSECTION: 7	713.05 PAYMENT.				
REVISION:	Insert the following codes and page	y items below the Pave	ment Striping – Permanent Paint:		
	Code Pay Item		Pay Unit		
		orne Marking – 6 IN V			
		orne Marking – 6 IN Y			
2	24191ER Durable Waterb	orne Marking – 12 IN	W Linear Foot		

SUBSECTION: REVISION:	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.
SUBSECTION: REVISION:	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.
SUBSECTION: REVISION:	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.
SUBSECTION:	716.02.01 Roadway Lighting Materials.
REVISION:	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.
SECTION: REVISION:	717 – THERMOPLASTIC INTERSECTION MARKINGS. Replace the section name with the following:
KEVISION.	
	INTERSECTION MARKINGS.
SUBSECTION: REVISION:	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.
SUBSECTION: REVISION:	717.02 MATERIALS AND EQUIPMENT. Insert the following subsection:
KEVISION.	
	717.02.06 Type I Tape. Conform to Section 836.
SUBSECTION: REVISION:	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.

SUBSECTION:	717.03.05 Proving Period.						
PART:	A) Requirements.						
REVISION:	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.						
SUBSECTION: REVISION:		e paragraph with the following:					
	Vacuum all marking material and	nd removal debris concurrently with the marking remo	oval operation.				
SUBSECTION: REVISION:	717.05 PAYMENT. Insert the following bid item co	des:					
SUBSECTION: REVISION:	miscellaneous metal v For the SCI100GM fe		to ASTM A 123. SCI100GM fender				
SUBSECTION: REVISION:	725.02.04 Type VII Class C. Replace bullet 2) with the follor 2) The SCI100GM Syste miscellaneous metal v For the SCI100GM fe		Illinois. For all to ASTM A 123. SCI100GM fender				
SUBSECTION: REVISION:		e first paragraph and add the following to the second p SO <sub>3</sub> content above the value in table I of ASTM C 150					
		SO <sub>3</sub> content above the value in table I of ASTM C 150 ay expansion test data for the supplied SO <sub>3</sub> content on					

SUBSECTION:	805.01 GENERAL.
REVISION:	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.
	Class B Folish-Resistant Aggregate Sources, and the Concrete Restriction List.
SUBSECTION:	805.04 CONCRETE.
<b>REVISION:</b>	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.
SUBSECTION:	805.04 CONCRETE.
<b>REVISION:</b>	Replace the "AASHTO T 160" reference in first sentence of the third paragraph with "KM 64-629"
SUBSECTION:	805.15 GRADATION ACCEPTANCE OF NON-SPECIFICATION COARSE AGGREGATE.
TABLE:	AGGREGATE SIZE USE
PART:	Cement Concrete Structures and Incidental Construction
REVISION:	Replace "9-M for Waterproofing Overlays" with "8 or 9-M for Waterproofing Overlays"

# Supplemental Specifications to The Standard Specifications for Road and Bridge Construction, 2008 Edition

(Effective with the July15, 2011 Letting)

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

					S	IZES (	SIZES OF COARSE AGGREGATES	RSE AC	GREG	ATES							
	Sieve		Al	STNDOM	FINER TH	AN EACH	AMOUNTS FINER THAN EACH LABORATORY SIEVE (SQUARE OPENINGS) PERCENTAGE BY WEIGHT	ORY SII	EVE (SQU/	ARE OPEN	INGS) PEI	CENTAG	E BY WEI	GHT			
Aggregate Size	Nominal (3)  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 ½ 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				
$10^{(2)}$	No. 4										100	85-100				10-30	
11(2)	No. 4										100	40-90	10-40			0-5	
DENSE GRADED AGGREGATE (1)	3/4 inch							100	70-100		50-80	30-65			10-40		4-13
ii .	1 ½ inch				100		90-100		60-95		30-70	15-55			5-20		0-8
(I) Cradation	C = 111 = OTHS V = 003 /3 MA == 1: 1: 1: 11 = 27		17114	000	111111	9 11 5	1										

3 2

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.

Gradation performed by wet steve KM 04-050 or AASH1O 1-11/1-27.

Sizes shown for convenience and are not to be considered as coarse aggregates.

Nominal Maximum Size is the largest sieve on the gradation table for an aggregate size on which any material may be retained.

CLIDGECTION	005 16 GAMBI BIG AND TEGTING					
SUBSECTION: REVISION:	805.16 SAMPLING AND TESTING.  Penloog the "AASHTO T 160" method with the "VA	M 64-629" method for the Concrete Beam Expansion				
KEVISION.	Test.	vi 04-029 illetilod for the Concrete Beam Expansion				
	Test.					
	Replace the "ASTM D 3042" method with the "KM	64-625" method for Insoluble Residue				
		o i o <u>z</u> o momow for mootwore registro.				
SUBSECTION:	810.04.01 Coating Requirements.					
REVISION:	Replace the "Subsection 806.07" references with "So	ubsection 806.06"				
	1					
SUBSECTION:	810.06.01 Polyvinyl Chloride (PVC) Pipe.					
PART:	B) Culvert and Entrance Pipe.					
<b>REVISION:</b>	Replace the title with the following:					
	B) Culvert Pipe, Storm Sewer, and Entrance Pipe.					
SUBSECTION:	823.02 LIQUID MEMBRANE FORMING COMPO	MINDS				
REVISION:	Add the following:	JUNDS.				
REVISION.	rad the following.					
	Effective July 1, 2011, to remain on or be added to the	he Department's approved list, products must have				
	completed testing or been submitted for testing throu	igh the National Transportation Product Evaluation				
	Program (NTPEP) for Concrete Curing Compounds.					
SUBSECTION:	837.03 APPROVAL.					
REVISION:	Replace the last sentence with the following:					
	The Department will sample and evaluate for approv	val each lot of thermonlastic material delivered for				
	use per contract prior to installation of the thermopla					
	thermoplastic material until it has been approved by					
	minimum of 10 working days to evaluate and approx					
		•				
SUBSECTION:	837.03.01 Composition.					
REVISION:	COMPOSITION Table:					
	Replace Lead Chromate	0.0 max. 4.0 min.				
	with	0.0 max. 4.0 mm.				
	Heavy Metals Content	Comply with 40 CFR 261				
SUBSECTION:	842.02 APPROVAL.					
TABLE:	PAINT COMPOSITION					
REVISION:	Revise the following in the table:					
	D 1 4 204E* 1 14 411 14 404E*	C 1 d V 11 1 1 1 1 1 d d				
	Replace the $2.0\Delta E^*$ values in the table with $4.0\Delta E^*$	for both Yellow and White Paint on both the				
	Daytime and Nighttime Color Spectrophotometer.					
SECTION:	DIVISION 800 MATERIAL DETAILS					
REVISION:	Add the following section in Division 800					
	SECTION 846 – DURABLE WATERBO	ORNE PAINT				
	846.01 DESCRIPTION This section services	k-drying durable waterborne pavement striping paint				
		ly-mixed, one-component, 100% acrylic waterborne				
	striping paint suitable for application on such tra	effic-bearing surfaces as Portland cement concrete,				
	bituminous cement concrete, asphalt, tar, and previous	usly painted areas of these surfaces.				
	<b>846.02 Approval.</b> Select materials that conform to					
	independent analysis data and certification for each f					
		etermination, and compliance to 40 CFR 261 for				
	heavy metal present, the test method used for each d leachable heavy metals content. Submit initial samp					

#### **Supplemental Specifications to The Standard Specifications for Road and Bridge Construction, 2008 Edition**

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

**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 W	ATERBORN	IE PAVEME	NT STRIPIN	G PAINT RI	EDUCTION S	CHEDULE
Non- conforming Property	Resin	Color	Contrast	TiO <sub>2</sub>	VOC	Heavy Metals Content
Reduction Rate	60%	10%	10%	10%	60%	60%

APPENDIX A:	TABLUATION OF CONSTRUCTION TOLERANCES.
PART:	601.03.03
REVISION:	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
APPENDIX A: PART: REVISION:	TABLUATION OF CONSTRUCTION TOLERANCES. 601.03.03 C) 2) Delete

#### STANDARD DRAWINGS THAT APPLY

#### TRAFFIC ~ TEMPORARY ~

TRAFFIC CONTROL

LANE CLOSURE MULTI-LANE HIGHWAY CASE II TTC-120

**DEVICES** 

POST SPLICING DETAIL TTD-110

**BRIDGES** 

MISCELLANEOUS STANDARDS

BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS BGX-009-04

**JOINTS** 

NEOPRENE EXPANSION DAMS AND ARMORED EDGES BJE-001-11

#### **PART III**

#### EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

#### TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

#### LABOR AND WAGE REQUIREMENTS APPLICABLE TO OTHER THAN FEDERAL-AID SYSTEM PROJECTS

- I. Application
- II. Nondiscrimination of Employees (KRS 344)
- III. Payment of Predetermined Minimum Wages
- IV. Statements and Payrolls

#### I. APPLICATION

- 1. These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work or by subcontract. The contractor's organization shall be construed to include only workmen employed and paid directly by the contractor and equipment owned or rented by him, with or without operators.
- 2. The contractor shall insert in each of his subcontracts all of the stipulations contained in these Required Provisions and such other stipulations as may be required.
- 3. A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

#### II. NONDISCRIMINATION OF EMPLOYEES

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 administrating agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

#### III. PAYMENT OF PREDETERMINED MINIMUM WAGES

- 1. These special provisions are supplemented elsewhere in the contract by special provisions which set forth certain predetermined minimum wage rates. The contractor shall pay not less than those rates.
- 2. The minimum wage determination schedule shall be posted by the contractor, in a manner prescribed by the Department of Highways, at the site of the work in prominent places where it can be easily seen by the workers.

#### IV. STATEMENTS AND PAYROLLS

- 1. All contractors and subcontractors affected by the terms of KRS 337.505 to 337.550 shall keep full and accurate payroll records covering all disbursements of wages to their employees to whom they are required to pay not less than the prevailing rate of wages. Payrolls and basic records relating thereto will be maintained during the course of the work and preserved for a period of one (1) year from the date of completion of this contract.
- 2. The payroll records shall contain the name, address and social security number of each employee, his correct classification, rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid.
- 3. The contractor shall make his daily records available at the project site for inspection by the State Department of Highways contracting office or his authorized representative.

Periodic investigations shall be conducted as required to assure compliance with the labor provisions of the contract. Interrogation of employees and officials of the contractor shall be permitted during working hours.

Aggrieved workers, Highway Managers, Assistant District Engineers, Resident Engineers and Project Engineers shall report all complaints and violations to the Division of Contract Procurement.

The contractor shall be notified in writing of apparent violations. The contractor may correct the reported violations and notify the Department of Highways of the action taken or may request an informal hearing. The request for hearing shall be in writing within ten (10) days after receipt of the notice of the reported violation. The contractor may submit

records and information which will aid in determining the true facts relating to the reported violations.

Any person or organization aggrieved by the action taken or the findings established as a result of an informal hearing by the Division of Contract Procurement may request a formal hearing.

- 4. The wages of labor shall be paid in legal tender of the United States, except that this condition will be considered satisfied if payment is made by a negotiable check, on a solvent bank, which may be cashed readily by the employee in the local community for the full amount, without discount or collection charges of any kind. Where checks are used for payments, the contractor shall make all necessary arrangements for them to be cashed and shall give information regarding such arrangements.
- 5. No fee of any kind shall be asked or accepted by the contractor or any of his agents from any person as a condition of employment on the project.
- 6. No laborers shall be charged for any tools used in performing their respective duties except for reasonably avoidable loss or damage thereto.
- 7. Every employee on the work covered by this contract shall be permitted to lodge, board, and trade where and with whom he elects and neither the contractor nor his agents, nor his employees shall directly or indirectly require as a condition of employment that an employee shall lodge, board or trade at a particular place or with a particular person.
- 8. Every employee on the project covered by this contract shall be an employee of either the prime contractor or an approved subcontractor.
- 9. No charge shall be made for any transportation furnished by the contractor or his agents to any person employed on the work.
- 10. No individual shall be employed as a laborer or mechanic on this contract except on a wage basis, but this shall not be construed to prohibit the rental of teams, trucks or other equipment from individuals.

No Covered employee may be employed on the work except in accordance with the classification set forth in the schedule mentioned above; provided, however, that in the event additional classifications are required, application shall be made by the contractor to the Department of Highways and (1) the Department shall request appropriate classifications and rates from the proper agency, or (2) if there is urgent need for additional classification to avoid undue delay in the work, the contractor may employ such workmen at rates deemed comparable to rates established for similar classifications provided he has made written application through the Department of Highways, addressed to the proper agency, for the supplemental rates. The contractor shall retroactively adjust, upon receipt of the supplemental rates schedule, the wages of any employee paid less than the established rate and may adjust the wages of any employee overpaid.

- 11. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic in any work-week in which he is employed on such work, to work in excess of eight hours in any calendar day or in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one half times his basic rate of pay for all hours worked in excess of eight hours in any calendar day or in excess of forty hours in such work-week. 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. This agreement shall be in writing and shall be executed prior to the employee working in excess of eight (8) hours, but not more than ten (10) hours, in any one (1) calendar day.
- 12. Payments to the contractor may be suspended or withheld due to failure of the contractor to pay any laborer or

mechanic employed or working on the site of the work, all or part of the wages required under the terms of the contract. The Department may suspend or withhold payments only after the contractor has been given written notice of the alleged violation and the contractor has failed to comply with the wage determination of the Department of Highways.

13. Contractors and subcontractors shall comply with the sections of Kentucky Revised Statutes, Chapter 337 relating to contracts for Public Works.

Revised 2-16-95

#### **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.

#### **Kentucky Equal Employment Opportunity Act of 1978**

The requirements of the Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) shall not apply to this Contract.

## TRANSPORTATION CABINET DIVISION OF CONSTRUCTION PROCUREMENT COMPLIANCE SECTION PROJECT WAGE RATES

WORKERS	MINIMUM HOURLY
<b>RATE\$</b>	7.25

Note: Parts III and IV of "Labor and Wage Requirements Applicable to Other Than Federal-Aid System Projects" do not apply to this project.

Federal-State Sheet 1 of 1

## EMPLOYEE RIGHTS UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

#### **FEDERAL MINIMUM WAGE**

\$7.25

PER HOUR

**BEGINNING JULY 24, 2009** 

#### **OVERTIME PAY**

At least  $1\frac{1}{2}$  times your regular rate of pay for all hours worked over 40 in a workweek.

#### **CHILD LABOR**

An employee must be at least **16** years old to work in most non-farm jobs and at least **18** to work in non-farm jobs declared hazardous by the Secretary of Labor.

Youths **14** and **15** years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs under the following conditions:

#### No more than

- 3 hours on a school day or 18 hours in a school week;
- 8 hours on a non-school day or 40 hours in a non-school week.

Also, work may not begin before **7 a.m.** or end after **7 p.m.**, except from June 1 through Labor Day, when evening hours are extended to **9 p.m.** Different rules apply in agricultural employment.

#### **TIP CREDIT**

Employers of "tipped employees" must pay a cash wage of at least \$2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee's tips combined with the employer's cash wage of at least \$2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.

#### **ENFORCEMENT**

The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.

Employers may be assessed civil money penalties of up to \$1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to \$11,000 for each employee who is the subject of a violation of the Act's child labor provisions. In addition, a civil money penalty of up to \$50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to \$100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.

## ADDITIONAL INFORMATION

- Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions.
- Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands.
- Some state laws provide greater employee protections; employers must comply with both.
- The law requires employers to display this poster where employees can readily see it.
- Employees under 20 years of age may be paid \$4.25 per hour during their first 90 consecutive calendar days of employment with an employer.
- Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.



#### **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**

#### Contract ID: 112977 Page 70 of 71

#### KENTUCKY TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS FRANKFORT, KY 40622

CONTRACT ID: 112977
COUNTY: CLAY

PROPOSAL: FE02 026 9006 B00062N

PAGE: 1 LETTING: 09/23/11 CALL NO: 303

APPROXIMATE UNIT UNIT AMOUNT QUANTITY PRICE LINE | ITEM DESCRIPTION \_\_\_\_\_\_ SECTION 0001 BRIDGE 0010 | 02003 RELOCATE TEMP CONC BARRIER 460.000 LF 0020 | 02562 SIGNS 149.000 SQFT 0030 | 02650 MAINTAIN & CONTROL TRAFFIC ( 1.00) LS APPLIES TO B00062 0040 | 02653 LANE CLOSURE 2.000 EACH 0050 | 02775 ARROW PANEL 1.000 EACH CONCRETE BARRIER WALL TYPE 9T 460,000 LF 0070 03299 ARMORED EDGE FOR CONCRETE 88.000 LF 0080 | 03300 ELIMINATE TRANSVERSE JOINT 135.750 LF 0090 | 03304 BRIDGE OVERLAY APPROACH PAVEMENT 671.000 LF 0100 | 06514 PAVE STRIPING-PERM PAINT-4 IN 0110 | 06549 PAVE STRIPING-TEMP REM TAPE-B 650.000 LF 0120 | 06550 PAVE STRIPING-TEMP REM TAPE-W 2,200.000 LF 0130 | 08150 STEEL REINFORCEMENT 1.169.000 LB 0140 | 08504 EPOXY SAND SLURRY 99.000 SQYD 0150 | 08510 REM EPOXY BIT FOREIGN OVERLAY 919.000 SQYD 0160 | 08526 CONC CLASS M FULL DEPTH PATCH 5.000 CUYD 0170 | 08534 CONCRETE OVERLAY-LATEX 38.300 CUYD 0180 | 08549 BLAST CLEANING 1,018.000 SQYD -----0190 23428EC CONCRETE PATCHING REPAIR 20.000 CUFT 0200 | 24094EC PARTIAL DEPTH PATCHING 25.500 CUYD SECTION 0002 DEMOBILIZATION

#### Contract ID: 112977 Page 71 of 71

#### KENTUCKY TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS FRANKFORT, KY 40622

CONTRACT ID: 112977
COUNTY: CLAY

PAGE: 2
LETTING: 09/23/11

PROPOSAL: FE02 026 9006 B00062N CALL NO: 303

NO		I	QUANTITY	PRICE	AMOUNT
0210   02569 DE	EMOBILIZATION	(AT LEAST 1.5%)	LUMP		
	TOTAL BID				