

**KENTUCKY TRANSPORTATION CABINET**  
**CID 14-4207 - SAFETY IMPROVEMENTS ON US 68 IN MERCER COUNTY**  
**MANDATORY PRE-BID CONFERENCE**  
**FRIDAY, NOVEMBER 14, 2014**

**CONTRACTORS REPRESENTED:**

<b><u>Name</u></b>	<b><u>Representing</u></b>
Will Hinkle	Hinkle Environmental Services
Bobby Upchurch	Mago Construction
Wes Moore	Hinkle Environmental Services
Vincent Lemieux	The Allen Company
Kris Mullins	The Allen Company

**OTHERS ATTENDING:**

<b><u>Name</u></b>	<b><u>Representing</u></b>
Michael Vaughn	KYTC
Keith Damron	American Engineers, Inc.
Gary Sharpe	Palmer Engineering
David Durman	KYTC
Tracy Lovell	KYTC
Peter Overmohle	American Engineers, Inc.
Randi Vint	KYTC D-7
Matt Simpson	KYTC D-7
Joe Norris	American Engineers, Inc.
Robert Nunley	KYTC D-7
Steve Horn	KYTC D-7
Randy Crawford	KYTC – CP





## MINUTES

The meeting began at approximately 9:10 am. Matt Simpson began the meeting by giving an overview of the Pre-Bid Conference and discussing a few important items concerning the subject project. The following comments were made:

### **A. Pre-Bid Conference Overview**

- Statements and responses to questions received from Contractors at the Pre-Bid Conference will be transcribed as minutes of the conference and made available to Contractors on the Division of Construction Procurement's web page prior to the bid letting.
- The written minutes will take precedence over any verbal comments made at the Pre-Bid Conference. In case of discrepancy between the minutes and the official proposal, the minutes will govern.
- The Department will accept bids only from Contractors represented at the Pre-Bid Conference.

### **B. Starting & Completion Dates**

- Bids will be opened at the Department's regular November 21, 2014 letting. Award of the contract and Notice to Proceed will follow the Departments normal process, so we anticipate a start date in January.
- This contract has an ultimate fixed completion date of November 1, 2015.
- There are Tree Cutting restrictions. All tree cutting must be completed prior to April 1, 2015.

### **C. Liquidated Damages**

- There are Liquidated Damages associated with the Tree Cutting restrictions. The proposal states that failure to adhere to the tree cutting restrictions will result in Liquidated Damages of \$283.50 per affected tree AND the Department will NOT make payment for any trees cut in violation of the tree cutting restrictions.
- The proposal contains Liquidated Damages for various other items, such as road closures occurring beyond the timeframes allowed. Please review all the Liquidated Damages carefully.
- All Liquidated Damages will be assessed as listed in the proposal.

### **D. Traffic Control and Coordination of with the Department**

- The Department will issue Press Releases pertaining to the daily road closures and the 2 week road closure. The Contractor will need to submit the dates of proposed road closures to the Engineer in advance. Daily road closures that are allowed between 9 am and 3 pm must be requested at least 7 calendar days in advance. The 2 week road closure must be requested at least 14 calendar days in advance. These time frames are so the Engineer can review & approve the proposed dates/times, and so the Public Information Officer will have time to draft and send out Press Releases.
- There is a list of dates in the Traffic Control Plan of when NO lane closures or road closures will be allowed. An addendum updating the Traffic Control Plan

and these dates was issued on November 12, 2012.

- Please read the Traffic Control Plan carefully.

**E. Overview of the Plans** – A presentation of the design and project development process was given by Keith Damron, of American Engineers, Inc. (KYTC's Design Consultant for the project). The following items were discussed:

- The primary Project Scope is to improve safety, due to a high number of crashes along the corridor.
- The following were the Project Criteria:
  - 1) **Stay within Right of Way (ROW).** There was very limited information as to where the exact ROW limits are. For most of the project, the ROW was assumed to be 20' from centerline on each side, unless a fence or rock wall was closer than 20' from centerline, and in those situations the ROW was assumed to be just inside of the fence or rock wall.
  - 2) **Improve the Superelevation up to a desirable cross slope of 8% for the curves along the corridor.** How much superelevation improvement can be achieved will depend on the amount of ROW and being able to tie-in the new ditch slopes or fill slopes within existing ROW. Thirty-five (35) curves are identified in the plans and in the summary sheets; thirty-two (32) curves are proposed to have superelevation improvements. Curves are numbered on the plan sheets.
  - 3) **Construct an 18" DGA Shoulder and improve ditching.**
  - 4) **Flatten roadside slopes to 3:1 or flatter, when possible.** This will also depend on the available ROW.
- Plans were developed with limited survey data, so it is noted that the plans are informational only. The construct notes and quantities shown on the plans are estimates based on limited survey data and are informational only. Also, the quantities could change due to field conditions. The Summary Sheets in the proposal correlates to the construct notes and quantities shown on the plans.
- Geotech drilling was not done.
- One to two cross sections were obtained per curve along with pipe sections, centerline and edge lines to prepare the plan sheets. A DTM (Digital Terrain Model) was not created for the project.
- The Plans do not contain disturb limits.
- It was noted that the contractor is to make every effort to NOT disturb any standing section of rock fence.
- It was noted that there was an identified wetland at the inlet end of the existing pipe at Station 863+34. This wetland is NOT to be disturbed.
- Roadway Stations are based on Mile Point:  $\text{Station Number} \div 5280 = \text{Mile Point}$
- The project consists of 12 primary roadway improvements that are shown on the summary sheets:
  - 1) **Ditching** – the ditch shown on the Typical is desirable. Some areas may have limited ROW and the ditches may have to be modified to fit within ROW. There is a Paved Ditch Type 2 being proposed on the left side from approx. Station 948+50 to 1042+69. This ditch was chosen over the Type 1 due to width. A pavement wedge is to be installed, as a separate operation, between

- the edge of pavement and the Paved Ditch Type 2, instead of DGA, to prevent erosion.
- 2) **Shouldering** – the existing shoulders need to be re-graded along the corridor. The Typical shows 4 inches of DGA on the shoulders with a Double Asphalt Seal Coat. Shouldering in the Shakertown Town section is to help correct the erosion under the guardrail. Shoulders will consist of both earth shoulder and DGA as shown on the typical. Any compacted earth needed to re-grade the shoulder to the proposed dimensions shall be incidental to the bid item Shouldering, as indicated
  - 3) **Guardrail improvements** – remove and replace guardrail along the corridor with guardrail delineators.
  - 4) **Pipe extensions** – some existing pipes are in good condition, but need to be extended.
  - 5) **Pipe replacements** – many pipes are being replaced with longer pipes to extend them out to near the ROW limits. Because of limited ROW, headwalls are not proposed for many pipes, but in some cases headwalls are to be installed when ROW allows.
  - 6) **Drop Box Inlets** – there are several pipe inlet locations where DBI's are being proposed to eliminate the existing "hole" or drop off. Standard DBI's were proposed whenever possible, but some DBI's will have to be field designed and modified. This could include reducing the grate size.
  - 7) **Tree removal** – the intent is to remove the trees that present a higher risk to drivers. Trees close to the edge of pavement on the outside of curves are the majority of the trees to be removed.
  - 8) **Tree trimming & clearing** – remove and trim trees within 5' of the edge of pavement to a height of 35' vertically. The intent is to allow more sunlight onto the roadway.
  - 9) **Rock outcrop removal** – the intent is to hoe ram the rock outcrop areas (no blasting) and lay it back to provide more sight distance for driver comfort. Also, the rock needs to be removed to provide space for the Paved Ditch Type 2. The rock outcrop limits identified in the plans are for identification purposes only.
  - 10) **Embankment failure** – along the downhill section, the shoulder needs to be reconstructed to give a more standardized section for guardrail. In some areas repairs are needed to stabilize the roadside slope where it is slipping/failing. Two different repair types are being proposed. One is drilled railroad steel and cribbing. This is proposed in the steeper areas. No Geotech borings were obtained. Based on field observations, it is assumed that the railroad steel will be 8'-12' in height. Please reference the Special Note. The other slope repair type uses gabion retaining wall. This option has been proposed when the slope height was less than 6'.
  - 11) **Superelevation improvement** – the intent is to improve the pavement cross slope of the curves up to 8%. For some curves, an 8% superelevation may not be able to be achieved and stay within ROW. Lesser superelevation rates will have to be used for several curves because of this. While the intent is to have 3:1 slopes, flatter slopes are encouraged if they can be tied-in within ROW. In

some cases, the ditch back slope will have to be steeper than 2:1 to stay within ROW.

- 12) **High Friction Surface treatment** – for the curves near Chinn’s Curve, high friction surface is being proposed. New asphalt surface must cure a minimum of 30 days before applying the high friction surface treatment.

**F. Questions and Answers** – At the conclusion of the presentation by Keith Damron, the contractors were allowed to ask questions. The following is a summary of the Q&A:

- 1) What will the As-Built drawings entail?

We do not want to survey the entire “as-built” roadway. Primarily, we want to record what the superelevation of the revised curves ends up being. Also, once field work begins, it may be found that some pipes can be moved or modified from what is shown in the plans to provide a better fit or better product. So, we want a record of the drainage structures actually installed.

- 2) Other projects that have cribbing typically include a list of anticipated cribbing depths at each location. The proposal does not contain such information and there is not a bid item for installing the cribbing. Is there an average depth of cribbing or could a bid item for installing the cribbing be added?

The Department anticipates cribbing heights to be 4’-6’. A bid item for cribbing will be added to the proposal through an Addendum. The Department will assume 6’ cribbing heights for estimate purposes.

- 3) Tree canopy clearing may need to be cut higher than 35 feet for the equipment used to drill the railroad steel. Would this be allowable?

Yes, if additional tree trimming is needed to accommodate the drilling equipment that will be acceptable. However, additional trimming that is necessary to accommodate equipment will occur at no additional cost to the Department.

- 4) Can the road be closed between 9 am to 3 pm on multiple consecutive days (e.g. Monday, Tuesday, and Wednesday) and these not count against the 2 week closure?

Yes, as long as the days are requested and approved by the engineer at least 7 days in advance.

- 5) There is some rock fence that is close to where the rock outcrop removal is. How is this to be handled?

The only section with rock fence that is very critical not to disturb is the standing rock fence near the Chinn’s Curve area, as this is a very historic area. The contractor should also try not to disturb any rock fence that is in relatively good condition. Areas where there are only remnants of rock fence are not as critical. This would be rock fence that is only 2’ high or less. The Department also understands that during the rock outcrop removal operation, some sections of rock fence may accidentally get damaged. Due to this, the Department has made an agreement with the SHPO to build up to 200 feet of dry laid rock fence as mitigation to any damage that may occur to the existing standing sections of rock fence.

- 6) If the rock from the remnants of rock fence is disturbed will the contractor have to stack this rock on pallets?

No, only the standing sections of rock wall fence that gets knocked over will have to be stacked on pallets.

7) Where is Chinn's Curve?

Chinn's Curve can be found on the plan sheet on page 111 of 268 in the proposal. There is an abandoned 2-story, stone house on top of the cliff on the inside of Chinn's Curve. The center of the curve is near Station 982+70. There is a cross section for Station 982+70 on page 143 of 268 in the proposal.

8) The Typical Section on Page 90 says that DGA is incidental to Excavation & Backfill. But everywhere else on the project, DGA is being paid for. Why is this?

The bid item Excavation & Backfill is used in the Embankment Repair areas involving the drilled railroad steel and cribbing. The DGA that is needed to reconstruct the shoulder in these areas has been grossly overrun on occasions in the past. Therefore, the Department typically makes the DGA for these areas incidental. For this project, the Department will consider changing this, so that all DGA is paid for by the TON. If the decision is made to make this change an Addendum will be issued.

9) Detail A on page 90 shows the Pavement Wedge including the 18" paved shoulder. The Pavement Wedge is to be placed as a separate operation. Can the 18" of paved shoulder be paved monolithic?

A 1" surface course along the 18" of paved shoulder shown in Detail A on page 90 can be placed monolithically with the asphalt surface, if the contractor so chooses.

10) The shoulder is to be re-graded along much of the project. In some of the guardrail areas, for example, around the Shaker Village area, the shoulder is very eroded. In this situation the work involves removing the guardrail, re-grading the shoulder, installing the DGA, and installing new guardrail. This work will likely not be able to be completed within a day. Can the guardrail be removed and the slope be left unprotected for more than 24 hours?

The Department will allow a shoulder closure in these situations, since the guardrail is approx. 8'-10' from the edge of pavement. All of the typical shoulder closure signage and barrels will be required. The Department expects the work in these situations to be completed as expeditiously as possible.

11) Is all the work from MP 17.5 to 20.0 supposed to occur within the 14 days?

No. Work from MP 17.5 to 20.0 can occur before and after the 14 day road closure, following the guidelines in the Traffic Control Plan. The idea behind the 14 day closure was that there is very little room to work in the downhill section from MP 17.5 to 20.0. Therefore, a 14 day period was chosen to allow full closure of the roadway to expedite as much of the work in that area as possible. Also, the steep drop off behind the guardrail in the downhill section is such that if sections of guardrail have to be removed for long periods of time in order to accomplish certain aspects of the work, having the road closed would be better than having traffic driving adjacent to the unprotected drop off. The Department envisions the majority of the work can be accomplished without removing the existing guardrail until it is near the time to install the new guardrail. For the railroad steel and cribbing, the drilling equipment should be able to be set up such that the drilled railroad steel and cribbing can be installed behind the existing guardrail without having to remove the existing guardrail. Therefore, some of the drilling may be

able occur using a single lane closure and flagger. In this set up the drilling equipment will likely block the entire width of the roadway when swung around to drill. The Traffic Control Plan does allow for traffic to be stopped for 20 minutes or less to allow for instances where the roadway must be blocked while working.

- 12) Are embankment repairs needed in the area where the soil nail wall was recently constructed?

No. But, please note that approximately 300 feet of existing guardrail was encased in the shotcrete soil nail wall during the recent slide repair project. The guardrail posts within this 300 feet of guardrail will not be able to be pulled up, but will have to be cut off, and new holes will have to be drilled for the new guardrail posts, off-set from the old, cut off posts. There is not a special bid item for this; the contractor needs to account for this in the bid price for installing guardrail.

- 13) Is there milling set up in the downhill section?

Extra milling quantities have been set up for removing some of the pavement thickness along the downhill section where previous slides have occurred. The intent would be to remove some of the extra weight from the asphalt patches. The majority of the milling quantities were set up for the superelevation improvements. The amount of milling that can be accomplished for each curve revision will need to be determined in the field on a case by case basis.

- 14) Is the High Friction Surface to be applied in one continuous stretch or is it just in the curves and not along the tangent sections?

The High Friction Surface is to be applied in one continuous stretch from approximately MP 18.34 to 18.69. Generally, the Department prefers the high friction surface to extend 50'-100' past the beginning and ending points of curvature onto the tangent sections. The section of roadway from MP 18.34 to 18.69 has several sharp curves in very close proximity to one another, with virtually no tangent sections, so it is proposed to apply the high friction surface through the entire MP range of these curves. The exact limits will need to be determined in the field. The Department advises that the new asphalt surface must cure a minimum of 30 days before the High Friction Surface can be applied.

- 15) Near Chatham Lane there is a very large, very old tree. This tree may be within 5 feet of the edge of pavement and the canopy would be within those limits. Trimming or cutting of this tree may raise concerns from the public. Does the Department expect this tree to be cut or trimmed?

The Department realizes that there are certain trees that may fall within the general areas for tree trimming or removal, but there may be valid reasons for not cutting those trees. The intent of the tree removal is to remove the more hazardous tree. However, if there are trees within the 5' clearing limits that the Engineers directs NOT to be removed, the reason or justification for not removing the tree needs to be documented.

- 16) It appears that the bid items of Rock Removal and Excavation-Unclassified overlap and cover the same area of excavation above the Paved Ditch Type 2. Wouldn't it be simpler to have 1 bid item instead of Rock Removal and Excavation-Unclassified?

The Department agrees that the quantities set up for Rock Removal and Excavation-Unclassified do overlap in the area of excavation above the Paved Ditch Type 2. The Department will discuss this and consider eliminating the bid item Rock Removal, and

estimating all the excavation quantity under the bid item Excavation-Unclassified. If the Department makes this change an Addendum will be issued.

- 17) Can the Department clarify how the quantity for the bid item Excavation & Backfill was estimated? Does the contractor get paid for the volume excavated and then the volume backfilled?

Excavation & Backfill is measured and paid only once. The volume that is paid is the larger of the excavation volume or the backfill volume. For this project, on the right side of the downhill section, the existing roadside slope has settled downward and there is virtually no shoulder. This area needs to be reconstructed and built back up to provide a minimum shoulder for guardrail. Therefore, for this project it is expected that the backfill volume will always be the larger volume.

- 18) The bid item Excavation & Backfill is generally only used in areas for railroad steel and cribbing. Why is the Department using Excavation & Backfill in areas that are NOT getting railroad steel and cribbing? Why not use a more traditional bid item, such as embankment in place?

The Department will update the Excavation & Backfill bid item quantity to only include the areas for the railroad steel and cribbing, and will create a bid item for Embankment In Place to cover the benching and embankment work that is needed in the downhill section. An addendum will be issued.

- 19) The Typical says "Varies" for the lane widths. What is the average lane width?

The lanes vary from 10'-12'. For a majority of the project paving will only occur in the curves proposed for superelevation improvement. Some curve widening may be possible in some curves, but the Department realizes this may not be possible due to limited ROW. If some widening is possible, the lanes should be striped to maintain a lane width that matches the lane widths prior to and after these curves. The entire section of roadway from MP 17.56 to the Bridge will be resurfaced. The total pavement width may vary through this section. However, in this section the Department wants a consistent lane width. We don't want the white lines to be placed so that we have no shoulder. The narrower points of the roadway need to be measured and used to establish the lane width that can be striped consistently, leaving a varying width paved shoulder. The contractor should coordinate with the Traffic Section when laying out the striping, so that the final product will be what the Department wants.

**G. Additional Questions** – At the conclusion of the Question & Answer period, Matt Simpson informed everyone:

- The written minutes will take precedence over any verbal comments that were made. The minutes will be compiled and will be posted to Construction Procurements as soon as possible.
- If there are any questions that come up after the Pre-Bid Conference, send those questions to the Department's Division of Construction Procurement in the usual manner.