



CALL NO. 311

CONTRACT ID. 131230

MORGAN COUNTY

FED/STATE PROJECT NUMBER FD04 SPP 088 0172 008-011

DESCRIPTION CROCKETT ROAD (KY 172)

WORK TYPE GRADE, DRAIN & SURFACE WITH BRIDGE

PRIMARY COMPLETION DATE 220 WORKING DAYS

LETTING DATE: December 13,2013

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN STANDARD TIME December 13,2013. Bids will be publicly announced at 10:00 AM EASTERN STANDARD TIME.

PLANS AVAILABLE FOR THIS PROJECT.

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

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PART I
SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 10

CONTRACT ID - 131230

FD04 SPP 088 0172 008-011

COUNTY - MORGAN

PCN - DE08801721330

FD04 SPP 088 0172 008-011

CROCKETT ROAD (KY 172) (MP 8.0) RECONSTRUCT KY-172 FROM MILEPOST 8.0 TO MILEPOST 10.4. (MP 10.4),
A DISTANCE OF 01.88 MILES.GRADE, DRAIN & SURFACE WITH BRIDGE SYP NO. 10-08301.00.
GEOGRAPHIC COORDINATES LATITUDE 37:57:16.00 LONGITUDE 83:08:20.00

COMPLETION DATE(S):

220 WORKING DAYS

APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

Bidder must use the Department's Expedite Bidding Program available on the Internet web site of the Department of Highways, Division of Construction Procurement. (www.transportation.ky.gov/construction-procurement)

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 PIPE INSPECTION

Contrary to Section 701.03.08 of the 2012 Standard Specifications for Road and Bridge Construction and Kentucky Method 64-114, certification by the Kentucky Transportation Center for prequalified Contractors to perform laser/video inspection is not required on this contract. It will continue to be a requirement for the Contractor performing any laser/video pipe inspection to be prequalified for this specialized item with the Kentucky Transportation Cabinet-Division of Construction Procurement.

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

Pursuant to KRS 176.085(1)(b), an agency, department, office, or political subdivision of the Commonwealth of Kentucky shall not award a state contract to a person that is a foreign entity required by [KRS 14A.9-010](#) to obtain a certificate of authority to transact business in the Commonwealth (“certificate”) from the Secretary of State under [KRS 14A.9-030](#) unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in [KRS 14A.9-010](#), the foreign entity should identify the applicable exception. Foreign entity is defined within [KRS 14A.1-070](#).

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

The Kentucky Division of Forestry has imposed a quarantine in Anderson, Boone, Bourbon, Boyd, Boyle, Bracken, Campbell, Carroll, Fayette, Franklin, Gallatin, Garrard,

Grant, Greenup, Hardin, Harrison, Henry, Jefferson, Jessamine, Kenton, Oldham, Owen, Pendleton, Scott, Shelby, Trimble, and Woodford Counties to prevent the spread of an invasive insect, the emerald ash borer. Hardwood cut in conjunction with the project may not be removed from the county of its origin. Chipping or burning on site is the preferred method of disposal.

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

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

10/29/12



Steven L. Beshear
Governor

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

Lori H. Flanery
Secretary

SECRETARY'S ORDER 11-004

FINANCE AND ADMINISTRATION CABINET

Vendor Document Disclosure

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

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

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

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

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

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

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

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.

03/01/2011

ASPHALT MIXTURE

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

INCIDENTAL SURFACING

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

FUEL AND ASPHALT PAY ADJUSTMENT

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

ASPHALT PAVEMENT RIDE QUALITY CATEGORY A

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

OPTION A

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

**SPECIAL NOTE FOR
HOLDING THE AWARD**

DUE TO PENDING PERMIT FROM THE USACOE, THE DATE THE CONTRACT WILL BE AWARDED WILL BE AT THE DISCRETION OF KYTC AND MAY BE HELD UNTIL THE AFOREMENTIONED PERMIT IS SECURED.

**SPECIAL NOTE CONCERNING
WATER QUALITY CERTIFICATION (WQC)**

&

CORPS OF ENGINEERS LETTER OF PERMISSION PERMIT (LOP)

**MORGAN COUNTY
RECONSTRUCT KY 172
ITEM NO. 10-8301.00**

**THIS SHALL SERVE AS A NOTICE TO THE CONTRACTOR THAT THE
CORPS OF ENGINEERS LOP PERMIT & KENTUCKY DIVISION OF WATER
WQC IS PENDING APPROVAL ON THIS PROJECT.**

**THE CONTRACTOR WILL NOT BE ABLE TO BEGIN WORK UNTIL THE
KENTUCKY TRANSPORTATION CABINET HAS SECURED THE
APPROPRIATE APPROVALS AND HAS PROVIDED COPIES OF THESE
APPROVALS TO THE CONTRACTOR.**

Right-of-Way Certification Form

Revised 2/22/11

Federal Funded

Original

State Funded

Re-Certification

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

Date: 29 October 2013

Project Name: West Liberty - Crockett Road (KY 172)

Letting Date: 13 December 2013

Project #: 1381 JL04 088 8300001R

County: Morgan

Item #: 10-8301.00

Federal #: _____

Description of Project: Reconstruct KY 172 from MP 8.0 to MP 10.4

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

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

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

Per 23 CFR 635.309, the KYTC hereby certify that all relocatees have been relocated to decent, safe, and sanitary housing or that KYTC has made available to relocatees adequate replacement housing in accordance with the provisions of the current FHWA directive(s) covering the administration of the Highway Relocation Assistance Program and that at least one of the following three conditions has been met. (Check those that apply.)

Condition 1. All necessary rights-of-way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Fair market value has been paid or deposited with the court.

Condition 2. Although all necessary rights-of-way have not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Trial or appeal of some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Fair market value has been paid or deposited with the court for most parcels. Fair market value for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract. (See note 1 below.)

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

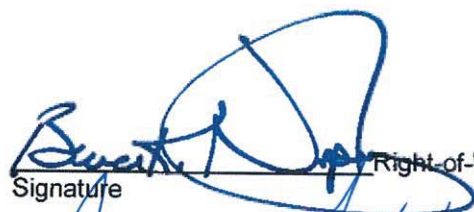
Right-of-Way Certification Form

Revised 2/22/11

Condition 3. The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. However, all remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. The KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary rights-of-way will not be fully acquired, and/or some occupants will not be relocated, and/or the fair market value will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction. A full explanation and reason for this request, including identification of each such parcel and dates on which acquisitions, payments, and relocations will be completed, is attached to this certification form for FHWA concurrence. (See note 2.)

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

Approved: Bruce K. Napier
Printed Name


Signature Right-of-Way Supervisor

Approved: DAVID L. ORR
Printed Name

 11/19/13
Signature KYTC, Director of ROW & Utilities

Approved: _____
Printed Name

Signature _____ FHWA, ROW Officer (when applicable)

Right-of-Way Certification Form

Revised 2/22/11

Date: 29 October 2013

Project Name: West Liberty - Crockett Road (KY 172)
 Project #: 1381 JL04 088 8300001R County: Morgan
 Item #: 10-8301.00 Federal #: _____
 Letting Date: 13 December 2013

This project has 11 total number of parcels to be acquired, and 6 total number of individuals or families to be relocated, as well as _____ total number of businesses to be relocated.

- 7 Parcels where acquired by a signed fee simple deed and fair market value has been paid
- _____ Parcels have been acquired by IOJ through condemnation and fair market value has been deposited with the court
- 4 Parcels have not been acquired at this time (*explain below for each parcel*)
- _____ Parcels have been acquired or have a "right of entry" but fair market value has not been paid or has not been deposited with the court (*explain below for each parcel*)
- 2 Relocatees have not been relocated from parcels 12, 13, _____, _____, _____, _____, and _____ (*explain below for each parcel*)

Parcel #	Name/Station	Explanation for delayed acquisition, delayed relocation, or delayed payment of fair market value	Proposed date of payment or of relocation
8	T. Hill	Suit filed. Waiting on Judge to appoint Commissioners.	12/12/13
9	A. Whitt	Suit filed. Waiting on Judge to appoint Commissioners.	12/12/13
11	J. Ball	Suit filed. Waiting on Judge to appoint Commissioners.	12/12/13
14	S. Patrick	Assigned to attorney. Upon filing, we will be waiting on Judge to appoint Commissioners.	12/12/13
12	Keeton	process of purchasing new home	12/10/13
13	Burke	Paid; Finishing move now	11/10/13

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

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

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

SPECIAL NOTES FOR UTILITY CLEARANCE

IMPACT ON CONSTRUCTION

MORGAN COUNTY

JL04 088 83000 01 U

Crocket Road (KY 172)

10-8301.00

GENERAL PROJECT NOTE ON UTILITY PROTECTION

None when applicable)

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

LVRECC estimated relocation and removal of their electrical facilities at the following stations listed below:

- 20' Rt. CL. Sta. 245+00 to 30' Rt. CL. Sta. 245 + 50 to 40' Rt. CL. Sta. 255 + 50.
- 100' Lft. CL. Sta. 259 +50 to CL. Sta. 264 + 00 to 10' Lft. CL. Sta. 264 + 50 to 20' Rt. CL. Sta. 268 +77 to 20' Rt. CL. Sta. 273 + 70 to 27' Lft. CL. Sta. 275 + 80 to 20' Rt. CL. Sta. 278 +10 to 25' Rt. CL. Sta. 281 + 90 to 42' Rt. CL. Sta. 285 + 00.
- 20' Rt. CL. Sta. 301+30 to 20' Lft. CL. Sta. 304 + 20 to 40' Lft. CL. Sta. 305 + 40 to 25' Lft. CL. Sta. 308 + 50 to 61' Lft. CL. Sta. 310 + 10 to 10' Lft. CL. Sta. 312 +25 to (40' Lft. and 25' Rt.) CL. Sta. 313 + 70 to 45' Rt. CL. Sta. 318 + 87.
- 50 Rt. CL. Sta. 352 +00 to 65' Lft. CL. Sta. 332 + 20 to 190' Lft. CL. Sta.334.00 to 90' Lft. CL. Sta. 335 + 80 to 5' Rt. CL. Sta. 337 + 90 to 140' Lft. CL. Sta. 339 +00.

LVRECC estimated relocation April 30, 2013 in accordance to 12/12/13 Proposed ROE.

Mountain Telephone estimated relocation and removal of their electrical facilities at the following stations listed below:

- 20'Rt. CL. Sta. 245+00 to 30' Rt. CL. Sta. 245 + 50 to 40' Rt. CL. Sta. 255 + 50.
- 100' Lft. CL. Sta. 259 +50 to CL. Sta. 264 + 00 to 10' Lft. CL. Sta. 264 + 50 to 20' Rt. CL. Sta. 268 +77 to 20' Rt. CL. Sta. 273 + 70 to 27' Lft. CL. Sta. 275 + 80 to 20' Rt. CL. Sta. 278 +10 to 25' Rt. CL. Sta. 281 + 90 to 42' Rt. CL. Sta. 285 + 00.
- 20' Rt. CL. Sta. 301+30 to 20' Lft. CL. Sta. 304 + 20 to 40' Lft. CL. Sta. 305 + 40 to 25' Lft. CL. Sta. 308 + 50 to 61' Lft. CL. Sta. 310 + 10 to 10' Lft. CL. Sta. 312 +25 to (40'Lft. and 25' Rt.) CL. Sta. 313 + 70 to 45' Rt. CL. Sta. 318 + 87.
- 80' Rt. CL. Sta. 321+00 to 25' Rt. CL. Sta. 322 +36 to 10' Rt. CL. Sta. 325 + 00 to 50' Lft. CL. Sta. 326 + 90 to 40' Lft. CL. Sta. 330 +00 to 60' Lft. CL. Sta. 333 + 20 to 70' Lft. CL. Sta. 335 + 00 to 60' Lft. CL. Sta. 336 + 18 to 5' Rt. CL. Sta. 337 + 90 to 22' Rt. CL. Sta. 339 + 00 to 35' Rt. CL. Sta. 341 +00 to 20" Rt. CL. Sta. 343 + 00 to 15' Rt. CL. Sta. 344 + 50.

Mountain Telephone estimated relocation June 30, 2013 in accordance to 12/12/13 Proposed ROE.

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

SPECIAL NOTES FOR UTILITY CLEARANCE IMPACT ON CONSTRUCTION

MORGAN COUNTY
JL04 088 83000 01 U
Crocket Road (KY 172)
10-8301.00

THE FOLLOWING COMPANIES ARE RELOCATING/ADJUSTING THEIR UTILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

None when applicable)

THE FOLLOWING COMPANIES HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE COMPANY OR THE COMPANY'S SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT

Morgan County Water District will implement the following Utility relocation with the awarded roadway contract/contractor; listed below:

12,100 LF. of 6" C-900, 600 LF. of 12" steel casing, 100 LF of creek crossing directional bore, 1,000 LF of ¾ service tubing, 100 LF of gravel replacement driveways, Six (6) 6" gate valves, two (2) 3-nozzle blow off hydrant, six (6) new meter installations, seven (7) tapping sleeve and valve, one thousand (1,000) Tons of crushed stone as called for in the project work.

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

None when applicable)

SPECIAL NOTES FOR UTILITY CLEARANCE

IMPACT ON CONSTRUCTION

MORGAN COUNTY
JL04 088 83000 01 U
Crocket Road (KY 172)
10-8301.00

SPECIAL CAUTION NOTE – PROTECTION OF UTILITIES

The contractor will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs.

The utility facilities as noted in the previous section(s) have been determined using data garnered by varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities defined may not be inclusive of all utilities in the project scope and are not Level A quality, unless specified as such. It is the contractor's responsibility to verify all utilities and their respective locations before excavating.

BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

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

SPECIAL NOTES FOR UTILITY CLEARANCE
IMPACT ON CONSTRUCTION

MORGAN COUNTY
JL04 088 83000 01 U
Crocket Road (KY 172)
10-8301.00

AREA UTILITIES CONTACT LIST

<u>Utility Company/Agency</u>	<u>Contact Name</u>	<u>Contact Information</u>
<u>Mountain Telephone</u>	<u>Rick Pelfrey</u>	<u>(606) 743-3121</u>
<u>LVRECC</u>	<u>Wes McKinney</u>	<u>(606) 743-3179</u>
<u>Cann Tech. LLC (Morgan County Water District Engineer)</u>	<u>Greg Smith</u>	<u>(502) 859.0907</u>

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TECHNICAL SPECIFICATIONS

SECTION A

GENERAL INFORMATION AND REQUIREMENTS

1. GENERAL

1.1 These technical specification include descriptions of materials which may or may not be used on this project.

1.1.1 The Contractor shall carefully read the Special Provisions for statements concerning other specifications which may be applicable to the Project.

1.2 Materials shall be of the types and constructed on the materials specified herein when identified on Plans, Bid Form or Measurement for Payment. Materials and accessories shall be of new and unused material and shall be installed in accordance with manufacturer's specification and/or as shown on the plans.

1.3 The Contractor shall be responsible for the safe storage and handling of all material furnished to or by him, and accepted by him, until it has been incorporated into the completed project and the project has been accepted by the Owner.

1.3.1 The Contractor shall handle all materials and equipment in such manner to avoid damage. All material and equipment whether moved by hand, skidways, hoists or other means shall be handled in such a manner to avoid dropping or bumping against other material or equipment.

1.3.2 In distributing material at the site of work, each piece shall be unloaded as near as possible to final installation point to minimize the number of times it must be handled.

2. PROTECTION OF UNDERGROUND AND SURFACE STRUCTURES AND OTHER PROPERTY

2.1 GENERAL

Temporary support, adequate protection and maintenance of all underground and surface utility structures, drains, sewers, and other obstruction encountered in the progress of the work shall be furnished at the Contractor's expense incidental to the project.

2.2 Obstruction by Other Utilities

2.2.1 Existing underground utilities shown on the plans are shown in approximate locations based on information furnished by others. Prior to beginning construction of proposed facilities the Contractor shall accurately locate existing underground utilities

by whatever means necessary including excavation where required. The Contractor shall notify the Engineer where utilities, so located will interfere with proposed construction.

2.2.2 Where the limits of construction of the proposed work enhances work encroaches upon existing utilities, the Contractor, where possible, shall provide temporary support or protection satisfactory to the owner of the utility

to permit continuation of proposed construction and no additional payment authorized.

- 2.2.3 Where existing utilities are encountered which prohibit construction of proposed facilities unless relocated the Contractor shall so notify the Engineer unless the plans provide for their relocation. Relocation shall be accomplished in a manner acceptable to the owner of the utility, and shall be furnished at the Contractor's expense incidental to the project.

2.3 Property Protection

- 2.3.1 Extreme care shall be taken to protect trees, fences, poles, crops and all other property from damage unless their removal is authorized by the Engineer. Any damaged property shall be restored to as good or better than original condition and shall meet with the approval of the Engineer and Owner.
- 2.3.2 The Contractor has the right to fully utilize the easement unless specifically stated otherwise on the plans or by the Engineer. If any irreplaceable trees, fences, poles or crops, such as tobacco, corn, soy beans and such (excluding pasture land), occur on the easement the Contractor shall obtain the engineer's and Owner's approval prior to removing or otherwise causing damage to any of these items.
- 2.3.3 Beyond the limits of the easement the contractor shall be responsible for any damage caused by his operation and/or his personnel.

3. INCIDENTAL ITEMS OF CONSTRUCTION

3.1 Barricades, Guards, and Safety Provisions

- 3.1.1 To protect the public from injury and to avoid property damage, adequate barricades, construction signs, warning lights and guards shall be placed and maintained by the Contractor during the progress of construction work until it is safe for the public to use the construction site.
- 3.1.2 The Contractor shall provide and maintain all safety facilities and devices required by the Occupational Safety and Health Act (OSHA). The Engineer is not responsible for safety provisions furnished or used by the Contractor nor will the Engineer advise or direct safety operation of the Contractor.

3.2 Traffic and Utility Control

- 3.2.1 All excavations shall be conducted in a manner to cause the least interruption to traffic. The Contractor shall provide suitable bridges at streets and driveways where traffic must cross excavated areas.
- 3.2.2 Driveways and other private and public access routes shall not be kept blocked or closed by the Contractor for more than a reasonable period of time without prior written approval from the property owner or controlling authority.
- 3.2.3 Existing fire hydrants, valve pit covers, valve boxes, meter boxes, curb-stop boxes, fire or police call boxes or other utility controls shall be kept unobstructed and accessible during the construction period.

3.3 Maintenance of Utility Service and Flow of Drains

3.3.1 Adequate provisions shall be made for the maintenance of flow in sewers (storm or sanitary), drains, water lines and gas lines and electrical lines encountered during construction.

3.3.2 No valve, switch or other control device of any utility system within the construction, area shall be operated by the Contractor without approval of the utility except in cases of an emergency. All utility customers which will be affected by the operation of any utility valve or control device shall be notified by the Contractor in sufficient time for each customer to make arrangements for the period of no service. Each customer shall be advised as to the time service will be off and probable time when it will be resumed.

3.4 Fencing

3.4.1 When the pipe line is being constructed through fields where livestock is being held the contractor shall provide, either temporary fencing or stationing of personnel, adequate protection to livestock from machinery and open trenches. The Contractor shall take all precautions necessary to insure that all animals are not isolated.

3.4.2 Where pipe line crosses fences in good condition and the work area is easily accessible through gates, the Contractor shall excavate or tunnel beneath the fences.

3.4.3 When it is necessary to cut existing fences, new end posts shall be installed one each side of the construction easement and old fence thoroughly stapled to these new posts before cutting fence.

After pipe is installed at this point and backfill is completed, a new fence of galvanized wire (No. 9 guage) shall be stretched between the new posts and thoroughly stapled to existing post

and any new intermediate posts necessary to provide a good fence. Replacement of fences shall be on an in kind basis and shall be considered incidental to installation of the pipe line.

4. SUMMARY

4.1 The Contractor shall furnish at the site of Work, all materials, labor and equipment necessary to complete the Work in accordance with the terms of the Contract and as required hereunder. He shall make the required excavation for installing the water lines and all other appurtenant structures: do all ditching, diking, pumping, bailing and draining or otherwise lowering and disposing of water encountered in the excavation necessary for rendering the foundation firm, dry and adequate for installing the water lines and appurtenances; do, as required, all sheeting, shoring, bracing, coffer damming and supporting; provide all lighting, barricades, signs, flagmen and watchmen: make all provisions necessary to maintain and protect, buildings, paved surfaces, fences, trees, shrubs, piles, water pipes, gas pipes, sewers, water courses, surface drains, railroads, railways and other structures in, on, across or adjacent to the Work and repair all damage done to them where and as required; provide all temporary bridges, detours or other means of maintaining travel, both vehicular and pedestrian; construct all concrete, brick and like work; lay all water connections; set in place all iron and other metal work; backfill all trenches; restore walks, grass pots, shrubs, trees, flowers, fences, paved surface, etc. damaged or disturbed; clear away all rubbish and surplus materials; furnish all materials,

tools, implements, machines, tracks, pumps, forms, supplies and labor required to build and put in complete and acceptable working order the water lines and appurtenances covered by the Contract Documents and described by the plans and specifications.

TECHNICAL SPECIFICATIONS

SECTION B

RELATED PIPING MATERIALS AND EQUIPMENT

1. GENERAL DESCRIPTION

1.1 All materials necessary for the completion of the work shall be furnished by the Contractor , as approved by the engineer to meet the requirements of the Plans and Specifications. Any materials found to be defective or not meeting the Specifications shall be rejected and replaced by approved materials at no additional cost to the Owner.

1.2 Concrete Materials

Materials used in all concrete construction shall be governed by the Concrete Section of these Technical Specifications.

2. BACKFILL MATERIALS

2.1 General

The following materials shall be used to backfill any trenches so designated and in any situation shown on the Plans where such materials are specified.

2.2 Sand or Sandy Materials

Sandy backfill in trenches for water lines, property service connection, and structures within the limits of existing or proposed paved surfaces and sand or sandy materials for other miscellaneous construction purposes not specified herein shall consist of natural, crushed, or conglomerate sand containing not more than twenty (20) percent clay.

2.3 Coarse Aggregates

Coarse aggregates shall conform to Kentucky Bureau of highways Standard Specifications (Latest Edition) Section 806, and shall be of the size and type as indicated on the Plans or Specifications.

2.4 Selected Excavated Materials

Backfill in trenches for water lines, property service connections, and structures outside the limits of existing or proposed paved surfaces, and in other specified locations shall be made with selected excavated materials taken from the trench excavation. The specified makeup of this material shall be governed by the Plans or Section e-1.17 of these Technical Specifications.

3. PAVING MATERIALS

3.1 General

All materials used for pavement replacement shall conform to requirements and regulations of the local governments and to Sections 401 and 806 of the Kentucky Bureau of Highways Standard Specification (Latest Edition) except for basis of payment.

3.2 Concrete Surface

Materials used in the construction of the concrete surface shall conform to Section 501.02 of the Kentucky Bureau of Highways Standard Specifications (Latest Edition).

3.3 Bituminous Concrete Surface

Materials used in construction of the bituminous concrete surface shall conform to Section 402.02 of the Kentucky Bureau of Highways Standard Specifications (Latest Edition).

3.4 Bituminous Concrete Base

Materials used in construction of the bituminous concrete base shall conform to Section 403.02 of the Kentucky Bureau of Highways Standard Specifications (Latest Edition).

3.5 Bituminous Tack Coat

The material for the bituminous tack coat shall be type SS-1h and shall conform to Section 806 of the Kentucky Bureau of Highways Standard Specifications (Latest Edition).

3.6 DGA Base

Materials used for the compacted dense graded aggregate base shall conform to Section 303.02 of the Kentucky Bureau of Highways Standard Specifications (Latest Edition).

TECHNICAL SPECIFICATIONS

SECTION C

PIPE MATERIALS

1. GENERAL

1.1 These Specifications describe several types of pipe which may or may not apply to the current project. All types listed herein will be acceptable alternates if no indication is other wise given either on the Plans or in other sections of these Specifications.

1.2 Selected pipe materials will be identified either on the Plans, or Bid Form, in Special provision, or in Measurement for Payment. The Contractor shall thoroughly familiarize himself with each of the items identified above and base his bid on the pipe material given therein.

1.3 Handling of Pipe and Accessories

1.3.1 Pipe and accessories shall be unloaded at the point of delivery, hauled to, and distributed at the site of the Project by Contractor in such a manner to avoid damage to the materials. Whether moved by hand, skidways, or hoists, materials shall not be dropped or bumped against pipe or accessories already on the ground or against any other object.

1.3.2 In distributing material at the construction site, each piece shall be unloaded as near the installation point as possible.

1.3.3 Pipe shall be handled in such a manner as to avoid damage to the ends. When such damaged pipe cannot be repaired to the Engineer' satisfaction, it shall be replaced at the Contractor's expense. The interior of all pipe and accessories shall be kept free from dirt and foreign matter at all times. The interior of all pipe and accessories shall checked for dirt and debris and, if necessary, thoroughly cleaned before use in the Project.

2. ASBESTOS CEMENT PRESSURE PIPE

2.1 Scope

This article covers the design, manufacturer, and testing of asbestos cement pressure pipe for sizes four (4") inch through forty-two (42") inch, nominal inside diameter.

2.1.1 The Contractor shall review the Plans and Bid Forms for information describing the Type, Class, and size of asbestos cement pressure pipe require on the Project.

2.2 Specific Requirements

2.2.1 Scope

The design, manufacturer, and inspection of asbestos cement pressure pipe shall conform to all requirements of AWWA Standard Specification designation AWWA C400 latest revision for sizes four (4") inch through sixteen (16") inch and designation AWWA C402 latest revision for sizes eighteen (18") inch through forty-two (42") inch.

3. CAST IRON PIPE AND FITTINGS

3.1 Scope

This article covers the design, manufacture and testing of cast iron pipe centrifugally cast in metal molds and cast iron fittings for pipe sizes three (3") inch through forty-eight (48") inch.

3.2 Specific Requirements

Cast iron pipe shall be centrifugally cast in metal molds and shall be furnished cement lined unless otherwise noted on the Plans or in other sections of the Specification. Cast iron pipe shall be furnished with rubber-gasket push-on joints except as may other wise be noted on the Plans or in difficult working areas and approval of the Engineer.

3.2.1 Thickness design of cast iron shall conform in all aspects to the requirements of ANSI-AWWA C101 latest revision.

3.2.2 Manufacture and testing of cast iron pipe centrifugally cast in metal molds shall comply with the requirements of the National Standard Institute and American Water Works Association designation A 21.6/AWWA C106 latest revisions.

3.2.3 Cement mortar lining shall conform to the requirements of ANSI/AWWA C104/A 21.4, latest revision for Cement-Mortar Lining for Ductile Iron Pipe and Gray Iron Pipe and Fittings for Water.

3.2.4 Fittings and joints for cast iron pipe shall conform to the latest revisions of ANSI/AWWA C110 "Cast Iron and Ductile Iron Fittings, Three (3") Inches through Forty-Eight (48") Inches, for Water and Other Liquids", ANSI/AWWA C111/A 21.11 "Rubber-Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings", and ANSI/AWWA C115 21.15 "Flanged Cast Iron and Ductile Iron Pipe with Threaded Flanges".

4. DUCTILE IRON PIPE AND FITTINGS

4.1 Scope

This article covers the design manufacture, and testing of ductile iron centrifugally cast in metal molds and ductile iron fittings.

4.2 Specific Requirements

Ductile iron pipe shall be centrifugally cast in metal molds and shall be furnished cement lined unless otherwise noted on the Plans or in other sections of these Specifications. Ductile iron pipe shall be furnished with rubber gasket push-on joints except as may otherwise be noted on the Plans or in difficult working areas with approval of the Engineer.

4.2.1 Thickness design of ductile iron shall conform in all aspects to the requirements of ANSI/AWWA C150/A 21/50 latest revision.

4.2.2 Manufacture and testing of ductile iron pipe shall conform in all respects to the requirements of the latest revisions of ANSI/AWWA C151/A 21.51.

4.2.3 Cement Mortar Lining – See ART. 3.2.3 above.

4.2.4 Fittings and Joints – See ART. 3.2.4 above.

5. PVC (POLYVINYL CHLORIDE) PRESSURE PIPE

5.1 Scope

This article covers the design, manufacture and testing of PVC 1120 manufactured of Class 12454-A or Class 12454-B resin material with a hydrostatic-design-basis (HDB) rating of 4,000 psi at 73.4 degree F (23 degree

5.2 Specific Requirements

PVC pressure pipe shall be furnished, constructed of materials and to the specifications of this section. The types of PVC pipe permitted for use on the Project will be as noted on the Plans, Bid Documents or other sections of these Specifications. The selected pipe will be designated either as PVC (ASTM) or PVC (AWWA) followed by an appropriate pressure rating. The Contractor shall thoroughly review the Plans and other sections of these Specifications for the type of PVC pipe selected for the Project. All PVC pipe shall be NSF approved.

5.2.1 PVC (ASTM) pipe shall be furnished and installed when designated on the Plans or in the Bid Documents. When selected, by the Engineer, for use on the Project PVC (ASTM) pipe shall be designated, manufactured and tested to conform with the latest revision of the American Society for Testing and Materials designated ANSI/ASTM D-2241.

5.2.2 PVC (AWWA) pipe shall be furnished and installed when designated on the Plans or in the Bid Documents. When selected, by the Engineer, for use on the Project, PVC (AWWA) pipe shall be designated, manufactured, and tested in conformance to the latest revision of the American Waterworks Association designation AWWA C900

5.2.3 PVC pipe joints shall be rubber gasket push-on joints either constructed integrally with the pipe or as a separate coupling constructed on the same material and to the same pressure Specifications as the pipe.

5.2.4 PVC (ASTM) pipe shall be furnished as SDR 26, 21, and 17 for Class 160 psi, 200 psi and 250 psi respectively.

5.2.5 PVC (AWWA) pipe shall be furnished as SDR 25, 18, and 14 for Class 100 psi, 150 psi and 200 psi respectively.

5.2.6 PVC (AWWA) pipe shall be furnished with outside dimensions (O.D.) equal to that for ductile iron and cast iron pipe.

5.2.7 Fittings for PVC (ASTM) pipe may be either PVC, cast or ductile iron. Those for PVC (AWWA) pipe shall be ductile iron.

6. POLYETHYLENE PIPE AND FITTINGS

6.1 Scope

This section covers the design, manufacture and testing of polyethylene high density pressure pipe manufactured of grade P34 resin material with a hydrostatic – design basis (HDB) rating of 1,600 psi at 73.4 degree F (23 degrees C)

6.2 Specific Requirements

The Contractor shall furnish and install high density polyethylene pipe meeting these Specifications at the locations indicated on the Plans and in other sections of these Specifications.

6.2.1 High density polyethylene pipe shall be manufactured and tested in conformance to the requirements of the latest revision of the American Society for Testing and Materials designation ASTM D-3350 "Polyethylene Plastic Pipe and Fittings Materials".

6.2.2 High density Polyethylene pipe shall have a grade designation of PE 3406 and a cell classification designation of PE 355434C.

6.2.3 High density polyethylene pipe shall be joined by means of butt fusion.

6.2.4 Fittings for high density polyethylene pipe shall be manufactured of the same materials as the pipe. Unless otherwise indicated, all fittings shall be joined to the pipe by butt fusion techniques.

7. BALL AND SOCKET RIVER CROSSING PIPE

7.1 Scope

This article covers the design, manufacture, and testing of Ductile Iron Ball and Socket River Crossing pipe.

7.2 Specific Requirements

Joints for ductile iron river crossing pipe shall be flexible, ball and socket type, boltless joints with rubber gaskets conforming to the ANSI Specification for "Rubber-Gasket joints for Ductile Iron Pressure Pipe and Fittings", A 21.11 (AWWAC11), Latest Revision.

TECHNICAL SPECIFICATIONS

SECTION D

PIPING APPURTENANCES

1. CRADLES AND ENCASEMENT

1.1 General

The cradle or encasement, as required to support the pipe, shall be of crushed stone or concrete and shall be installed as specified in the Pipe Work Section of these Specifications, and as shown on the Plans.

1.2 Crushed Stone Cradle

In all cases where the bedding is not specified the pipe is to be laid in crushed stone cradle. The crushed stone to be used shall be Kentucky Highway No. 9 or No. 78 Crushed Stone, as specified by the Kentucky Bureau of Highways Standard Specifications (Latest Revision).

1.3 Concrete Cradle, Encasement, or Cap

Where a concrete cradle, encasement, or cap is required, concrete shall conform to the Concrete Section of these Technical Specifications. Dimensions shall be as shown on the plans.

1.4 Concrete Thrust Blocks and Anchor Blocks

Where concrete thrust blocks and anchor blocks are required (i.e. at all pipe bends and fittings), concrete as specified in the Concrete Section of these Technical Specifications shall be used.

1.5 Special Concrete Structures and Vaults

Cast in place concrete structures shall be constructed of concrete conforming to the Concrete Section of these Technical Specifications to the dimensions and grades as shown on the Plans.

1.6 Valves and Related Appurtenances

1.6.1 General

All valves and related appurtenances shall be installed as shown on the Plans and specified in these Technical Specifications. Material Specifications shall be as described below. Any materials found defective, not meeting the specifications, or improperly installed, shall be rejected and so marked and shall be replaced by materials approved by the Engineer, at no additional cost to the Owner.

1.7 Gate Valves

Gate valves shall be non-rising stem, iron body, bronze mounted, double disc, parallel seat type with o-ring stem seals. Unless otherwise specified the valves shall be suitable for 0-150 PSI operating pressures. Valves which are to be buried for outside use shall be furnished with a 2 inch operating nut and shall have mechanical joint ends. Other valves shall have either flanged or mechanical joint ends and shall be operated by handwheel or chain-wheel operator as shown on the Plans. All valves shall conform to the AWWA Standard C 500, Latest Revision, relative to materials, manufacture, dimensions, inspections, testing, and markings.

1.8 Gate Valves Boxes

Each buried gate valve shall be provided with a 5 ¼" shaft, slide-type, two-piece cast iron valve box. The box shall be of the length as necessary to conform to the depth of the valve. Any extension sections necessary shall be provided with the valve box. Unless shown otherwise on the Plans, the valve box cover shall be marked "Water".

1.9 Check Valves

Check valves shall be iron body, bronze mounted. They shall be outside weight and lever type (unless specified otherwise by the Engineer or indicated as such on the Plans) with bronze seat, hinge and guide busting. Unless otherwise indicated, check valves for interior use shall be flanged and those for exterior use shall be mechanical joint.

1.10 Automatic Air Release Valves

Air release valves shall be of the type, which will automatically release air which accumulates in the pipe system. The body and cover shall be case iron and the float shall be stainless steel. Unless otherwise indicated the valves shall be suitable for use in lines having an average working pressure of 150 psi. **ALL AIR RELEASE VALVE ASSEMBLIES TO HAVE PRESSURE GAUGES.**

1.11 Manual Air Release Valves

See "Detail Sheet" Plan Sheet for description of the manual air release valves.

1.12 Air Valve Pit

Air valves shall be installed in a pit as shown on the Plan Details.

1.13 Blowoff Assemblies

Blowoff assemblies shall be installed in accordance with the details and Specifications at the locations shown on the Plans or as directed by the Engineer for the purpose of removing any obstacles or impurities from the main. The blowoff assembly shall be connected to the main with a typical tapping saddle and corporation stop. The piping shall be 2 inch VC installed as shown in the details with a 2 inch iron body bronze mounted gate valve and 2 piece case iron valve box and lid marked "Water". The lid shall be secured with a pentagon lock nut.

1.14 Fire Hydrants (MUELLER)

New fire hydrants shall be of the dry barrel type and be installed where indicated on the Drawings or otherwise directed by the Engineer. Hydrants shall be installed in such a manner as to be completely accessible and in such a position as to minimize possibilities for damage from vehicles or to pedestrians. Hydrants shall be set plumb with nozzles at least 18" above grade. The barrel shall be turned so that the pumper nozzle will face the street. When placed behind curb, the hydrant shall be set so the nozzle will be at least 12 inches from the gutter face of the curb, or at least 5 feet from the edge of the street or road where no curb exists.

Hydrants shall be supported upon a poured-in-place block of concrete as detailed. Such block shall not interfere with joint maintenance nor with proper hydrant drainage, but shall insure zero movement between the hydrant and the main.

Fire hydrants shall conform in all respects to the current Standards of the AWWA. They shall have a 6" inlet and be equipped with two (2) 2-1/2" hose nozzles and one (1) pumper nozzle; nozzles shall be standard to local governmental agencies' requirements. Each hydrant shall be equipped with traffic damage repair kits and hydrant wrenches provided for every five (5) hydrants.

1.15 Service Piping

Unless otherwise noted on plans service piping shall be high density 3/4" Polyethylene (PE 3408) tubing or approved equal.

The piping shall be Type III C 5 P 34 as designated in ASTM-D-1248 ("Polyethylene Plastics Molding and Extrusion Materials") and shall be classified as a PE 335433 according to ADTM D-3350 ("Polyethylene Plastics Pipe and Fittings Materials").

1.16 Connection to Main

Service pipe connections to the main shall be made with a tapping saddle and corporation stop as shown in the Plans.

1.17 Setters

Setters shall be Ford 70 Series with 90° brass angle meter valve and 90° coupling sized for 5/8" x 3/4" and 3/4" meter, or approved equal.

1.18 Meters

All water meters shall be 5/8" x 3/4", plastic or bronzed bodied, of the magnetic oscillating piston or rotating piston type with a working pressure of 150 psi and shall conform to the AWWA specifications for Cold Water Meters.

The main case shall be frost-proof with a single, hinged lid cover with raised characters indicating the direction of flow and manufacturers serial number. Strainers with an effective area at least double that of the main case inlet shall be of a non-corrosive material and should fit tightly against the main case.

The measuring chamber shall be of a non-corrosive material and shall be securely positioned in the main casing. Discs shall be straight reading U.S. Gallons type with a measuring capacity of 999,999 gallons. All parts shall be as non-corrosive as possible and completely encased and hermetically sealed.

Measuring accuracy shall conform to AWWA Standard C 700, latest edition. Testing will be done at Engineers request and any meter found defective shall be returned to the manufacturer for replacement or repair at manufacturer's expense.

11.19 Meter Boxes and Covers

All meters shall be installed in new concrete boxes unless otherwise shown on the plans or approved by the Engineer.

The box shall be a precast concrete vault 18" I.D. and 24" in height. The cast iron lid shall have an 11 1/2" minimum opening with "Water Meter" stamped on top.

1.20 Back Flow Preventers

Back Flow preventers shall be angle check valves installed on customer side of meter. Such valves shall be brass or ductile iron with stainless steel spring. Type shall be Ford, Mueller, or approved equal.

1.21 Connection to Customer Service Line

All connections to the customers existing service line shall be made at the meter Setter connection only unless otherwise directed by the Engineer.

TECHNICAL SPECIFICATIONS

SECTION E

PIPING WORKMANSHIP AND CONSTRUCTION METHODS

1. EXCAVATIONS AND GRADING

1.1 General

This section shall include all clearing and grubbing, site preparation, excavating of earth and other material, filling, site restoration and grading, and other allied work necessary for the construction required for the project.

Any construction methods not specifically outlined in these specifications will be governed by the Kentucky Bureau of Highway Standard Specifications (Latest Revision)

1.2 Site Preparation

Prior to commencing construction operations the contractor shall make all the provisions necessary to assure the protection of all existing improvements, both public and private. He shall protect trees, shrubs, plantings, and grassed areas and shall make provisions for maintaining public travel in an acceptable manner.

1.3 Protection of Existing Improvements

Before any excavation is started, adequate protection shall be provided for all lawns, trees, shrubs, landscape work, fences, sidewalks, hydrants, utility poles, streets, alley and driveway paving, curbs, storm sewers, ditches, headwalls, catch basins, surface inlets and all other improvements that are to remain in place. Such protection shall be provided as long as necessary to prevent damage from Contractor's operations. Shrubs, bushes, small trees and flowers, which have to be removed to permit excavation for the water lines, shall be protected and replanted or replaced when backfill is complete.

The Contractor shall exercise every precaution to prevent damage to property within the outside easements. He shall remove all debris and rock from the site and restore the ground surfaces, replace or repair all driveways, buildings, fences, retaining walls, etc., which are removed or damaged during construction.

Repairs, restoration or replacement of any improvements damaged or removed, whether shown on the plans or not, shall be the obligation of the Contractor at no additional cost to the owner.

1.4 Maintenance of Public Travel

Maintenance of all traffic shall be in accordance with any requirements of the local road department(s) and/or the Kentucky Department of Transportation . It is the responsibility of the Contractor coordinate all work with and notify the above-named agencies, and to provide all necessary signs, barricades, lights, flagmen, and other items for maintenance of traffic.

Public travel shall be maintained, unrestricted, wherever and whenever possible. Detours shall be provided when so directed by the appropriate agency. Adequate precautions shall be taken to provide for the safety of both vehicular and pedestrian traffic. Emergency vehicles shall be provided access to construction area at all times.

Unless specifically directed otherwise by the Engineer, no more than five hundred (500') feet of trench shall be opened ahead of the pipe laying, and not more than five hundred (500') feet of open ditch shall be left behind the pipe laying. All barricades, lanterns, watchmen, and other such signs and signals as may be necessary to warn the public of the dangers in connection with open trenches, excavations and other obstructions, shall be provided by and at the expense of the contractor.

When so required, or when directed by the Engineer, only one-half (1/2) of the street crossing and road crossings shall be excavated before placing temporary bridges over the side excavated for the convenience of the traveling public.

All backfilled ditches shall be maintained in such manner that they will offer no hazard to the traveling public and the property owners abutting the improvements shall be taken into considerations. All public or private drives shall be promptly backfilled or bridged at the direction of the Engineer. Excavated materials shall be disposed of as to cause the least interference, and in every case the disposition of excavated materials shall be satisfactory to the Engineer.

1.5 Drainage

The Contractor shall make provisions for handling all flows in existing creeks, ditches, sewers and trenches by pipes, flumes or other approved methods at all times when natural functioning of said creeks, ditches, sewers and drains. The Contractor shall at all times during construction provide and maintain sufficient equipment for the disposal of all water which enters the excavation, both in open cut trenches and in tunnels, to render such excavation firm and dry, until the structures to be built thereon are completed.

1.6 Excavation

1.6.1 General

Materials of excavation shall be unclassified and shall include whatever materials are encountered to the depth of the plans, stated in the specifications, or directed by the Engineer.

1.7 Disposal of Unsuitable Materials

Excavated materials which are either surplus and not required or are unsuitable for backfilling shall be removed from the site of operations as soon as excavated.

All excavated materials so removed shall be disposed of, at no additional cost to the owner, on sites acquired by the Contractor and approved by the Engineer.

1.8 Storage of Suitable Materials

Excavated materials suitable and required for backfill shall be stored in neat piles adjacent to the excavation in a manner so as to interfere as little as possible with traffic, but shall not be placed at such heights above or closeness to the sidewalls of the excavation to endanger such operations due to slides or cave-ins.

1.9 Open Cut Excavation for Structures

In excavation for masonry and concrete structures, the required width shall be such as to permit forms to be constructed in the proper manner and to permit proper backfilling on completion of the structures.

Depth of excavation for footings shall be as shown on the drawings and/or as directed by the Engineer to obtain sufficient bearing.

1.10 Open Cut Excavation for Pipeline Trenches

Open Cut excavation, either in earth or rock, shall be safely supported and of sufficient width and depth to provide adequate room for the construction or installation of the work to the lines and dimensions called for by the plans.

Before laying the pipe, the trench shall be opened far enough ahead to reveal obstructions that may be necessitate changing the alignment of the pipeline.

1.11 Trench Dimension

Excavations for water pipe in both earth and rock shall have a minimum allowance trench width as shown on the details which will permit good workmanship in laying the pipe and fittings, boring and jacking and compaction of backfill at he sides of the pipe, and shall be subject to the approval of the Engineer.

The maximum allowance trench width shall be no greater than 2' - 0" + the outside pipe diameter except where such dimensions may prohibit any other construction such as the boring and jacking of service connections under paved surfaces.

Subgrade – the depth of excavation below the pipe – shall be 3" minimum in earth trench and 6" in rock trench unless other wise stated in the plans and Specifications or approved by the Engineer.

1.12 Shoring, Sheering and Bracing

The Contractor shall furnish, place, and maintain adequate sheeting and bracing as may be required to support the sides of the excavation and prevent any movements of earth which could, in any way, diminish the width of the excavation to less than that necessary for proper construction, cause damage to the waterline or structures, utilities, pavements, or walks, or cause injury to workmen or others through movement of the adjacent earth banks, or to otherwise damage or delay the work.

The design and installation of all sheeting, sheet piling, bracing and shoring shall be based on computations of pressure exerted by the materials to be retained under existing conditions. Adequate and proper shoring of all excavations shall be the entire responsibility of the Contractor, however, the Engineer may require the submission of shoring plans (accompanied by supporting computations) for approval prior to the Contractor undertaking any portion of the work.

1.13 Blasting

When blasting is required for the removal of rock, every precaution shall be used for the protection of persons and private and public property. The method of blasting will be as determined by the Contractor, subject to the approval of the engineer, prior to construction.

The Contractor shall comply wit hall laws, regulations, and ordinances of the local governmental agencies and the Commonwealth of Kentucky relating to the transportation, storage and use of any and all explosives or blasting agents. Compliance with all of the above stated regulations and submittal of the method of blasting as stated above does not in any way relieve the contractor of responsibility for any damage caused by the blasting. Any damage thus caused shall be promptly and satisfactorily repaired by the Contractor at no additional cost to the owner.

1.14 Unauthorized Excavation

Whenever the excavation is carried beyond or below the lines and grades given by the Engineer, the Contractor at his own expense shall refill such excavated space with such material and in such a manner as will insure stability of the structure involved.

1.15 Removal of Water

The Contractor, at his own expense, shall provide adequate facilities for promptly removing water from all excavations. No water lines shall be laid in a trench which is holding water.

1.16 Backfill, Embankment, and Grading

1.16.1 General

This section includes the filling of the excavated trenches and spaces around the completed structures or pipelines to the original grades or to finished grades as indicated on the plans.

1.16.2 Trench Backfilling in Unpaved Areas

Backfilling of Trenches in open cut shall be commenced as soon as possible after the distribution main and service taps to the main have been completed, and all jointing and alignment has been approved by the Engineer.

Selected excavated material containing no rock shall be carefully and solidly tamped around the pipe from the tip of the cradle or encasement up to a plane at least one (1) foot above the exterior of the pipe or structure. The filling of the trench shall be carried on simultaneously on both sides of the pipe in such a manner that the completed pipe line, except as may be necessary in tamping or backfilling, shall not be permitted, until the trench has been backfilled to that height.

The Contractor may use any type of earth moving equipment he has at his disposal, provided such equipment is in satisfactory condition, and of such type and capacity that the work may be accomplished properly, the grading schedule maintained, and the required density obtained. Any questionable suitability problems related to earth moving equipment shall be resolved by the Engineer.

The selected excavated backfill materials used between the plan one (1) foot above the ground surface may include rock fragments taken from the excavation.

In backfill containing rock, no rock fragment shall be larger than 1 cubic foot in size and all rock fragments shall be mixed with sufficient earth materials to completely eliminate all voids, subject to the approval of the Engineer. The amount of rock in the backfill shall not exceed 33% of the total backfill. Rock fragments and surplus earth materials not used in the back fill shall be removed from the site of the work.

In filling the remainder of the trench, from the plane one (1) foot above the pipe to the top of the trench, the backfill material may be shoveled into the trench without compacting, and heaped over whenever, in the opinion of the Engineer, this method of backfilling may be used without inconvenience to the public.

Before final acceptance, the Contractor will be required to level off all trenches where backfill material has been piled up, or to bring the trench up to the level of the surrounding street, roadway, or terrain where necessary, also, the removal from the streets, roadways, and private property of all excess earth or other materials.

1.16.3 Trench Backfilling in Paved Areas

In areas where street paving is to be replaced, trenches shall be backfilled up to one (1) foot above the top of pipe or structure using the methods described above for unpaved areas. Backfill above this level shall be placed in layers not exceeding eighteen (18) inches and firmly tamped into place by tampers or rammers to 95% of Standard Proctor Maximum Density. In lieu of tamping the trench may be backfilled with granular material and puddled and jetted under the direction of the Engineer.

1.16.3 Backfill Around Structures

Sandy backfill material or selected excavated materials containing no rock shall be placed in uniform layers around air valve pits or other structures and shall be thoroughly tamped and compacted.

1.16.4 Backfill Around Iron Pipe

Selected excavated materials composed of clay, sand, gravel or other materials non-injurious to iron pipe shall be used for backfilling within 24 inches of iron pipe. Cinders, rubbish and other materials which would be injurious to iron pipe shall not be used in such backfilling.

1.17 Restoration of Ground Surfaces and Cleanup

1.17.1 General

All ground surfaces in public rights-of-way, easements and on private property that have been damaged or destroyed by the Contractor's operations shall be restored to original contours and in accordance with the following specifications.

1.17.2 Restoration of Grassed Areas with Sod

Where so designated, all established grassed areas shall be restored with sod containing grasses of comparable quality. Sod shall be placed and rolled so that the final elevations of the area being restored are the same as existed prior to the beginning of construction. Sod shall be pegged where necessary, and shall be watered and cared for to assure its survival until final acceptance of the project.

1.17.3 Restoration of Grassed Areas with Seed and Mulch

The Contractor shall seed and mulch all disturbed areas, unless otherwise specified, in the following manner: Rye or Fescue Seeding – The ground shall be loosened approximately 3 inches deep with a disc or harrow; fertilized with 25 pounds of 10-10-10, or equivalent, and 100 pounds of agricultural lime per 1,000 square feet; sown at a rate of 75 pounds per acre with an approved grade of perennial rye or Kentucky No. 31 Fescue grass seed that will provide early

growth during the season in which it was planted. The seed shall be well raked or boarded into the soil.

The time of application of the seed and fertilizer shall be at the discretion of the Engineer.

Unless other wise permitted by the Engineer, vegetable materials for mulching shall be wheat, oat, barley or rye straw only. All material shall be reasonably free from weed seeds, foreign material, and other grasses and chaff, and shall contain no Johnson Grass. The straw shall be reasonable bright in color and shall not be musty, mouldy caked or of otherwise low quality. It shall be dry on delivery

Unless otherwise specified, the bituminous material to be used for “tying down” straw mulch shall be a slow setting emulsified asphalt. It shall be non-toxic to plants.

Mulch net shall be used, if directed by the Engineer, to hold mulch in place until turf is established. The net shall be made of a tightly twisted kraft paper yarn, leno woven with a warp count of one pair of yarns per two (2) inches and a filling count of two per inch. Salvage edges and center shall be reinforced with polyethylene filament. The material shall a minimum width of 45 inches.

1.18 Cleanup

Before final acceptance of the work, the Contractor shall satisfactorily clean all areas within the limits of his operations including the street surfaces, walks, gutters, fences, lawns, private property and structures, leaving them in as neat, clean and usable condition as originally found. He shall remove all machinery, tools, surplus materials, temporary buildings and other structures from the site of work. He shall remove all organic matter and materials containing organic matter from all areas and places used by him during construction. All sewers, manholes, inlets, etc., shall be cleared of all scaffolding, sedimentation, debris, rubbish and dirt.

Where the Contractor’s operations have resulted in filling existing ditches, clogging existing culverts, damaging existing bridges, ground surfaces, sidewalks, driveways, etc., the Contract shall reditch, clean culverts, repair or replace bridges, ground surfaces, sidewalks, driveways, etc., so as to return them to a condition as good as or better than existed prior to the beginning of his operations.

The Contractor’s cleanup operations, which include repair, restoration or replacement of ground surfaces and existing improvements and the removal of rock, shall be performed continuously during the construction operations.

TECHNICAL SPECIFICATIONS

SECTION F

PIPING WORK

1. PIPEWORK

1.1 General Description

After the trench is excavated to subgrade as specified, it shall be filled to the proper depth with crushed stone or concrete as specified to provide a firm and satisfactory bed, hereafter referred to as the cradle or encasement, for the entire length of the pipe barrel. Pipe of designated class and required size shall be laid to form a closed joint with the next adjoining pipe, bringing the inverts continuously to the required depth of cover shown on the plans. The pipe shall be laid in an upstream direction, with bells upstream, unless otherwise permitted or directed.

In no case shall water be allowed to rise in or above the pipe before the joint has become thoroughly set. No walking on or working over the pipes after they are laid, except as may be necessary in placing and compacting the backfill, will be permitted until they are covered with backfill to a depth of one (1) foot.

The trench backfill shall be placed in accordance with backfill requirements of these Technical Specifications.

1.2 Cradle and Encasement

The cradle or encasement, as required to support and protect the water pipe, shall be of crushed stone or concrete and shall be installed as specified herein or as directed by the Engineer to the dimensions as shown on the plans.

1.2.1 Crushed Stone Cradle

Where indicated on the plans water main shall be installed with a crushed stone cradle.

Where the water pipe is to be laid in a crushed stone cradle, the crushed stone to be used shall be Kentucky Highway No. 9 or No. 78 crushed stone, as specified by the Kentucky Bureau of Highways. The crushed stone shall be deposited in the excavated trench to depth shown on plans, allowing for the pipe wall thickness and providing "bell holes" for making joints, where pipe is of the bell and spigot type. The pipe shall be laid to the depth as shown on the plans and crushed stone shall be carefully deposited around the pipe up to a plane through the centerline of the pipe as indicated on the plan details.

1.2.2 Concrete Cradle

Where a concrete cradle is required as additional support for the water pipe, concrete, as specified in the concrete section of these Technical Specifications and section 601 of the Kentucky Bureau of Highways Standard Specifications, shall be used. First, the water pipe shall be laid accurately to the depth indicated on the plans, setting the pipe upon concrete blocks or saddles installed to provide both vertical and lateral supports for the pipe. The supporting of pipe on wooden blocks will not be permitted.

1.2.3 Concrete Encasement

Where a concrete encasement is specified, concrete, as specified in the Concrete Section of these Technical Specifications and Section 601 of the Kentucky Bureau of Highways Standard Specifications, shall be used. The water pipe shall be laid and reported in accordance with the specifications for water pipe and concrete cradle, as heretofore specified, and the concrete deposited around the pipe at the required width and depth to a plane at least 6 inches over the top of the pipe, as indicated on the Plan Details. Proper bracing of the pipe shall be provided to prevent its being floated by the concrete encasement.

1.3 Metered Service Connections

Metered service connections shall be installed to the point where the line from the customers residence or business joins the meter setter. The service piping shall be ¾" polyethylene tubing as noted in the Piping Appurtenances Section of these Technical Specifications. They shall be installed as shown on the plans or as directed by the Engineer.

1.4 Meter Boxes and Other Structures

Meter boxes shall be constructed as shown on the Plan Details. The concrete vault shall be placed on concrete bricks, with 6" crushed stone placed in the bottom for drainage.

The cast iron lid shall be set flush with existing ground or ½" maximum above ground. Backfill shall be carefully tamped around both vault and lid. Vaults placed in sidewalks, driveways, or other paved surfaces shall have lids placed flush with existing paved surfaces.

Service line depth shall be the same as the main water line with the exception that the service line may be brought up to a sufficient depth to enter the vault within 5' of the side of the vault.

Air release valve vaults shall be Type III 24" diameter Reinforced Concrete Pipe barrels set on 8 concrete bricks with 6" crushed stone in bottom for drainage. The lid shall be cast iron stamped "water" with 24 I.D. opening. Backfill shall be carefully tamped around vault and lid. The lid shall be flush or ½" maximum above existing ground in unpaved areas and flush with paved surfaces.

1.5 Branches and Fittings

Branches and Fittings shall be provided and laid as where directed.

Tapping saddles or other fittings for property service connections shall be placed on the water main at such points as to result in the property service connection having the shortest length possible between the water main and the property line unless otherwise indicated on the plans or directed by the Engineer.

1.6 Pipe Cutting

Pipe may be cut in any manner specified by the pipe manufacturer, but only when authorized and approved by the Engineer. Where a pipe is cut the Contractor shall remove the old section of pipe satisfactorily to the Engineer.

1.7 Pipe Handling and Installation

All procedures for receiving, handling, storing, and installing pipe used in the project, unless specified in these Technical Specifications, shall be governed by the Standards listed below with the approval of the Engineer.

- Ductile Iron Pipe - The manufactures printed instructions.
- Polyvinyl Chloride Pipe - The manufactures printed instructions.
- Polyethylene Pipe - The manufactures printed instructions.

1.8 Pressure Pipe Thrust Blocking

Concrete thrust blocks shall be provided to prevent movement of pipe or appurtenances in response to the forces developed by the pressure of the piping system. In general, thrust blocking shall be provided where the pipeline changes direction (e.g. tees, bends, elbows, crosses, etc.), changes size (e.g. reducers), stops at dead ends, and/or has an appurtenance (e.g. valve or hydrant) attached at which thrust develops when closed. Thrust blocks shall be sized according to the plans.

1.9 Highway and Railroad Crossings

Steel casing pipe for road and railroad crossings shall be bored and/or jacked in place to the depth shown on the plans. Casing pipe shall also be laid in open cut where indicated on the drawings. All joints between lengths shall be solidly butt-welded with a smooth non-obstructing joint inside. The casing pipe shall be installed without bends. The water line pipe shall be installed after the casing pipe is in place, and shall be braced within the casing with structural steel members welded into place or other Engineer approved method to preclude possible floatation.

Railroad crossing material and installation shall be in strict accordance with American Railway Engineering Association Specifications.

At each end of the casing pipe, the water line pipe shall be wrapped with two layers of roofing felt. The wrapping shall extend a minimum of 12 inches in each direction from the end of the casing pipe. After the water line has been installed, inspected, tested and wrapped as specified, both ends of the casing pipe shall be closed with brick or concrete block masonry in a manner acceptable by the Engineer.

Weep holes shall be provided in the closure at the lower end of the casing pipe to facilitate drainage and shall be located within the granular pipe bedding material. Granular bedding is not required under the open cut casing pipe; however, the Contractor shall insure that casing pipe does not bear directly on rock.

1.10 Creek Crossings

River and creek crossings shall be accomplished in a method determined by the Contractor and approved by the Engineer to the lines and grades as shown on the plans. Piping shall be ductile iron or polyethylene pipe as per the pipe materials section of these Technical Specifications and as approved by the Engineer. There are two types of creek crossings which shall be as shown on the plans and where indicated on the plans.

1.11 Pipeline Testing

1.11.1 General

Testing at the Contractor's expense of any water line section may be requested at any time by the Engineer to determine that the section is watertight.

1.12 Visual Inspection

During the final inspection the Engineer may inspect any section of the water lines by various methods at his disposal to determine whether the completed lines are true to line and grade as laid out or as shown on the Plans.

1.13 Hydrostatic Tests

After the pipe is laid and the line flushed, it shall be filled with water with care being exercised to expel all air from the pipe. During the test period all pipe, valves, fittings, and joints shall be examined carefully for defects. Any observed leaks or defective pipe shall be satisfactorily repaired or replaced, at the expense of the Contractor and the test repeated until the section tested is within the limits prescribed hereinafter. The entire distribution system or parts thereof shall be tested under hydrostatic pressure of 150 psi, or pressure class of the pipe which ever is greater, for a period of 4 hours, if joints are exposed, or for an 8 hour period if joints are covered. Repairs shall be made using approved materials and new replacement fittings, specials, or gaskets where leakages occur.

Leakage shall be measured by an approved calibrated meter through which all the water required to maintain test pressure shall be pumped. All testing shall be performed in the presence of the Engineer. Allowable leakage shall not exceed 10 gallons per 24 hours per inch of diameter per mile of pipe, at the specified test pressure.

Tests shall be completed in accordance with the latest edition of AWWA C-600 except a modified herein.

1.14 Flushing

Any foreign material left in piping during construction shall be removed by flushing system prior to testing. Flushing should be accomplished by partially opening and closing valves and hydrants several times under expected line pressure with flow velocities adequate to flush foreign material out of valves and hydrants.

1.15 Disinfection

1.15.1 General

Thoroughly disinfect all water pipe on potable water lines prior to being placed in service. Follow the applicable provisions of the procedure established for the disinfection of the cast iron pipe as set forth in the latest edition of AWWA C651 entitled "Disinfecting Water Mains".

1.15.2 During the Construction

Workmen shall be required to use utmost care to see that the surface of parts of the structures, the inside of pipes, fittings, jointing materials, valves, and specials which come in contact with the local water system's water, are maintained in a sanitary condition. Every effort shall be made to keep the inside

of the pipe, fittings, and valves free of all foreign matter, sticks, dirt, rocks. As each joint of pipe is being laid, it shall be swabbed so that all foreign matter is removed. All fittings and exposed open ends of pipe shall be blocked or capped until the line is completed.

When the entire pipe line or certain selected sections thereof have been completed, tested and made ready for turning over to the local water system, ready for use, the line or section of line shall be thoroughly sterilized according to the following procedure: The new pipe shall be disinfected by introducing HTH, perchloron , or a similar hypochlorite solution, through taps made by the Contractor as directed by the Engineer. The water shall be turned into the mains slowly to allow a thorough mixing of solution which shall be brought to a strength of 50 parts per million of available chlorine. All valves shall then be closed and the sterilizing solutions permitted to remain in the pipe line sections for not less than 24 hours. At the end of the 24 hour period the water in the line must have a minimum chlorine residual of 25 parts per million, or the process shall be repeated until the residual of 25 ppm is maintained. After the required chlorine residual has been maintained the mains shall be flushed thoroughly until a chlorine residual not to exceed one (1) part per million is obtained.

No water line shall be put in service either permanently or temporarily until it has been thoroughly disinfected to the satisfaction of the Engineer. The Contractor shall be responsible for all bacteriological testing should this be required by the Engineer.

1.16 Restoration of Paved Surfaces

1.16.1 General Description

After all excavations within the limits of paved surfaces have been properly backfilled and compacted in accordance with the Plans and Specifications, the paved surfaces shall be restored to a condition as good as or better than existed prior to the beginning of the work, in accordance with the following Specifications.

1.17 City, County, and State Paved Surfaces

Streets, alleys, sidewalks, curbs, and gutters originally constructed by ordinance or maintained by the City, and highways, roads, and walks constructed and/or maintained by the Kentucky Department for Transportation or County, which are wholly or partially removed, damaged or disturbed by the Contractor's operations, shall be promptly restored to a condition as good as or better than existed prior to the beginning of the work. Such restoration shall be performed in accordance with the pertinent Specifications and standards of the City, the County, or the Kentucky Department of Transportation as applicable.

1.18 Other Paved Surfaces

Streets, alleys, driveways, sidewalks, curbs, and gutters, not constructed or maintained by the City, the Kentucky Department of Transportation, or the County, but paved with asphalt, concrete, cinders, crushed stone, waterbound macadam, oilbound macadam, or heterogeneous paving materials, which are wholly or partially removed, damaged or disturbed by the Contractors operations, shall be restored with like or better materials, acceptable to the Engineer, to a condition as good or as better than existed prior to the beginning of the work, so that the movement of traffic, both vehicular and pedestrian, through the restored way shall be as free, safe and unimpeded as before.

1.19 Asphalt Roadway Paving

Existing asphalt paving in roadways shall be restored with base, binder and surfacing of the dimensions as shown in the plans. All material shall conform to the Materials section of these Technical Specifications and construction methods shall conform to Sections 300 and 400 of the Kentucky Bureau of Highways Standard Specifications with the approval of the Engineer.

1.20 Concrete Roadway Paving

Existing concrete paving in roadways shall be restored with the dimensions shown in the plan details. All materials shall conform to the Materials section of these Technical Specifications and construction methods shall conform to Section 500 of the Kentucky Bureau of Highways Standard Specifications with the approval of the Engineer.

1.21 Driveway Replacement

For the restoration of all paved driveways disturbed by the installation of the water lines, the materials and dimensions shall be equivalent to the original paving. However, in no case shall the dimensions be less than (a) 6" DGA base and 6" Class "A" Concrete for concrete driveways and (b) 6" DGA base and 2" Bituminous Surface for asphalt driveways.

NOTICE

DEPARTMENT OF THE ARMY

CORPS OF ENGINEERS

Pending Letter of Permission (LOP)

PROJECT: Morgan County, Item 10-8301.00
KY 172 Reconstruction

THIS SHALL SERVE AS A NOTICE TO THE CONTRACTOR THAT A DEPARTMENT OF THE ARMY SECTION 404 LETTER OF PERMISSION PERMIT IS REQUIRED AND IS PENDING APPROVAL FOR PORTIONS OF THIS PROJECT. THIS NOTICE IS FOR INFORMATIONAL PURPOSES ONLY AND SHALL BE SUPERSEDED UPON RECEIPT OF THE APPROVED LOP PERMIT.

THE DEPARTMENT OF THE ARMY PERMITS ARE AUTHORIZED AND ISSUED UNDER AUTHORITY OF SECTION 10 OF THE RIVERS AND HARBOR ACT AND SECTION 404 OF THE CLEAN WATER ACT. IN COMPLIANCE WITH THE U.S. ARMY CORPS OF ENGINEERS' SECTION 404 REGULATIONS AND PROCEDURES, THE CONTRACTOR **SHALL NOT** PERFORM THE PROPOSED WORK, WHICH INVOLVES IMPACTS TO WATERS OF THE UNITED STATES, UNTIL THE KENTUCKY TRANSPORTATION CABINET HAS SECURED THE APPROPRIATE APPROVALS AND HAS PROVIDED COPIES OF THESE APPROVALS TO THE CONTRACTOR.

N O T I C E

KY DIVISION OF WATER

PENDING WATER QUALITY CERTIFICATION

PROJECT: Morgan County, Item 10-8301.00
KY 172 Reconstruction

This shall serve as a notice to the contractor that a Kentucky Division of Water Quality Certification (WQC) is required and pending approval for portions of this project. This notice is for informational purposes only and shall be superseded upon receipt of the approved WQC. The contractor shall post a copy of this Water Quality Certification in a conspicuous location at the project site for the duration of construction and comply with the general conditions as required.

To more readily expedite construction, the contractor may elect to alter the design or perform the work in a manner different from what was originally proposed and specified. Prior to commencing such alternative work, the contractor shall obtain **written** permission from the Division of Construction and the appropriate permit agency. A copy of any request to alter this proposal and subsequent responses shall be forwarded to the Division of Environmental Analysis, DA Permit Coordinator, for office records and for informational purposes.

KENTUCKY TRANSPORTATION CABINET (1)

And

_____ (2), Construction

Kentucky Pollutant Discharge Elimination System

Permit KYR10

Best Management Practices (BMP) plan

Groundwater protection plan

For Highway Construction Activities

For

[KY 172 Reconstruction from MP 8.0 – MP 10.4](1)

Project: 10-8301.00

Project information

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

Owner – KENTUCKY TRANSPORTATION CABINET (1)

Resident Engineer: (2)

Contractor name: (2)

Address: (2)

Phone number: (2)

Contact: (2)

Contractors agent responsible for compliance with the KPDES permit requirements (3):

Project Control Number (2)

Route (Address) KY 172 (1)

Latitude/Longitude (project mid-point) 37/57/16, 83/08/20 (1)

County (project mid-point) Morgan County(1)

Project start date (date work will begin): (2)

Projected completion date: (2)

A. Site description:

1. Nature of Construction Activity (from letting project description) **RECONSTRUCT KY 172(1)**
2. Order of major soil disturbing activities (2) and (3)
3. Projected volume of material to be moved **391,527 CY(1)**
4. Estimate of total project area (acres) **46.9(1)**
5. Estimate of area to be disturbed (acres) **46.9 (1)**
6. Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information.(1)
7. Data describing existing soil condition **Some of the soil horizons and slopes on the project are subject to erosion. Necessary procedurss in accordance with Sections 212 and 213 of the current Standard Specifications shall be followed in construction. (1) & (2)**
8. No information describing existing discharge water quality is available(1) & (2)
9. Receiving water name: **Fannins Fork AND Elk Fork(1)**
10. TMDLs and Pollutants of Concern in Receiving Waters: **NO TMDLS INVOLVED ON THIS PROJECT(1)**
11. Site map – Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.

12. Potential sources of pollutants:

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

B. Sediment and Erosion Control Measures:

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

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

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

3. As DDAs are prepared for construction, the following will be addressed for the project as a whole or for each DDA as appropriate:

Ø Construction Access – This is the first land-disturbing activity. As soon as construction begins, bare areas will be stabilized with gravel and temporary mulch and/or vegetation.

Ø At the beginning of the project, all DDAs for the project will be inspected for areas that are a source of storm water pollutants. Areas that are a source of pollutants will receive appropriate cover or BMPs to arrest the introduction of pollutants into storm water. Areas that have not been opened by the contractor

will be inspected periodically (once per month) to determine if there is a need to employ BMPs to keep pollutants from entering storm water.

- Ø Clearing and Grubbing – The following BMP's will be considered and used where appropriate.
 - Leaving areas undisturbed when possible.
 - Silt basins to provide silt volume for large areas.
 - Silt Traps Type A for small areas.
 - Silt Traps Type C in front of existing and drop inlets which are to be saved
 - Diversion ditches to catch sheet runoff and carry it to basins or traps or to divert it around areas to be disturbed.
 - Brush and/or other barriers to slow and/or divert runoff.
 - Silt fences to catch sheet runoff on short slopes. For longer slopes, multiple rows of silt fence may be considered.
 - Temporary Mulch for areas which are not feasible for the fore mentioned types of protections.
 - Non-standard or innovative methods.
- Ø Cut & Fill and placement of drainage structures - The BMP Plan will be modified to show additional BMP's such as:
 - Silt Traps Type B in ditches and/or drainways as they are completed
 - Silt Traps Type C in front of pipes after they are placed
 - Channel Lining
 - Erosion Control Blanket
 - Temporary mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.
 - Non-standard or innovative methods
- Ø Profile and X-Section in place – The BMP Plan will be modified to show elimination of BMP's which had to be removed and the addition of new BMP's as the roadway was shaped. Probably changes include:
 - Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.
 - Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.
 - Additional Channel Lining and/or Erosion Control Blanket.
 - Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
 - Special BMP's such as Karst Policy
- Ø Finish Work (Paving, Seeding, Protect, etc.) – A final BMP Plan will result from modifications during this phase of construction. Probably changes include:
 - Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.

- Permanent Seeding and Protection
 - Placing Sod
 - Planting trees and/or shrubs where they are included in the project
- Ø BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are : PROJECT DOES NOT INCLUDE STORM WATRT BMPS OR FLOW CONTROLS(1)

C. Other Control Measures

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

2. Waste Materials

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

3. Hazardous Waste

All hazardous waste materials will be managed and disposed of in the manner specified by local or state regulation. The contractor shall notify the Resident Engineer if there any hazardous wastes being generated at the project site and how these wastes are being managed. Site personnel will be instructed with regard to proper storage and handling of hazardous wastes when required. The Transportation Cabinet will file for generator, registration when appropriate, with the Division of Waste Management and advise the contractor regarding waste management requirements.

4. Spill Prevention

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

Ø Good Housekeeping:

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

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

Ø **Hazardous Products:**

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

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

The following product-specific practices will be followed onsite:

Ø **Petroleum Products:**

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

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

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

Ø **Fertilizers:**

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

Ø **Paints:**

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

Ø **Concrete Truck Washout:**

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

Ø **Spill Control Practices**

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

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

- Spills of products will be cleaned up promptly. Wastes from spill clean up will be disposed in accordance with appropriate regulations.

D. Other State and Local Plans

This BMP plan shall include any requirements specified in sediment and erosion control plans, storm water management plans or permits that have been approved by other state or local officials. Upon submittal of the NOI, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in this BMP plan). This provision does not apply to master or comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials. (1)

E. Maintenance

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

F. Inspections

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

- Ø All erosion prevention and sediment control measures will be inspected at least once each week and following any rain of one-half inch or more.
- Ø Inspections will be conducted by individuals that have received KyTC Grade Level II training or other qualification as prescribed by the cabinet that includes instruction concerning sediment and erosion control.
- Ø Inspection reports will be written, signed, dated, and kept on file.
- Ø Areas at final grade will be seeded and mulched within 14 days.

- Ø Areas that are not at final grade where construction has ceased for a period of 21 days or longer and soil stock piles shall receive temporary mulch no later than 14 days from the last construction activity in that area.
- Ø All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of being reported.
- Ø Built-up sediment will be removed from behind the silt fence before it has reached halfway up the height of the fence.
- Ø Silt fences will be inspected for bypassing, overtopping, undercutting, depth of sediment, tears, and to ensure attachment to secure posts.
- Ø Sediment basins will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 70 percent of the design capacity and at the end of the job.
- Ø Diversion dikes and berms will be inspected and any breaches promptly repaired. Areas that are eroding or scouring will be repaired and re-seeded / mulched as needed.
- Ø Temporary and permanent seeding and mulching will be inspected for bare spots, washouts, and healthy growth. Bare or eroded areas will be repaired as needed.
- Ø All material storage and equipment servicing areas that involve the management of bulk liquids, fuels, and bulk solids will be inspected weekly for conditions that represent a release or possible release of pollutants to the environment.

G. Non – Storm Water discharges

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

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

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

H. Groundwater Protection Plan (3)

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

- Ø Contractors statement: (3)

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

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

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

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

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

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

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

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

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

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

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

- a) General information about this project is covered in the Project information;
- b) Activities that require a groundwater protection plan have been identified above;
- c) Practices that will protect groundwater from pollution are addressed in section C. Other control measures.
- d) Implementation schedule – all practices required to prevent pollution of groundwater are to be in place prior to conducting the activity;

- e) Training is required as a part of the ground water protection plan. All employees of the contractor, sub-contractor and resident engineer personnel will be trained to understand the nature and requirements of this plan as they pertain to their job function(s). Training will be accomplished within one week of employment and annually thereafter. A record of training will be maintained by the contractor with a copy provide to the resident engineer.
- f) Areas of the project and groundwater plan activities will be inspected as part of the weekly sediment and erosion control inspections
- g) Certification (see signature page.)

Contractor and Resident Engineer Plan certification

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

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

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

Resident Engineer and Contractor Certification:

(2) Resident Engineer signature

Signed _____ title _____, _____

Typed or printed name²

signature

(3) Signed _____ title _____, _____

Typed or printed name¹

signature

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

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

Sub-Contractor Certification

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

Subcontractor

Name:

Address:

Address:

Phone:

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

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

Signed _____ title _____, _____

Typed or printed name¹

signature

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

EXHIBIT #2

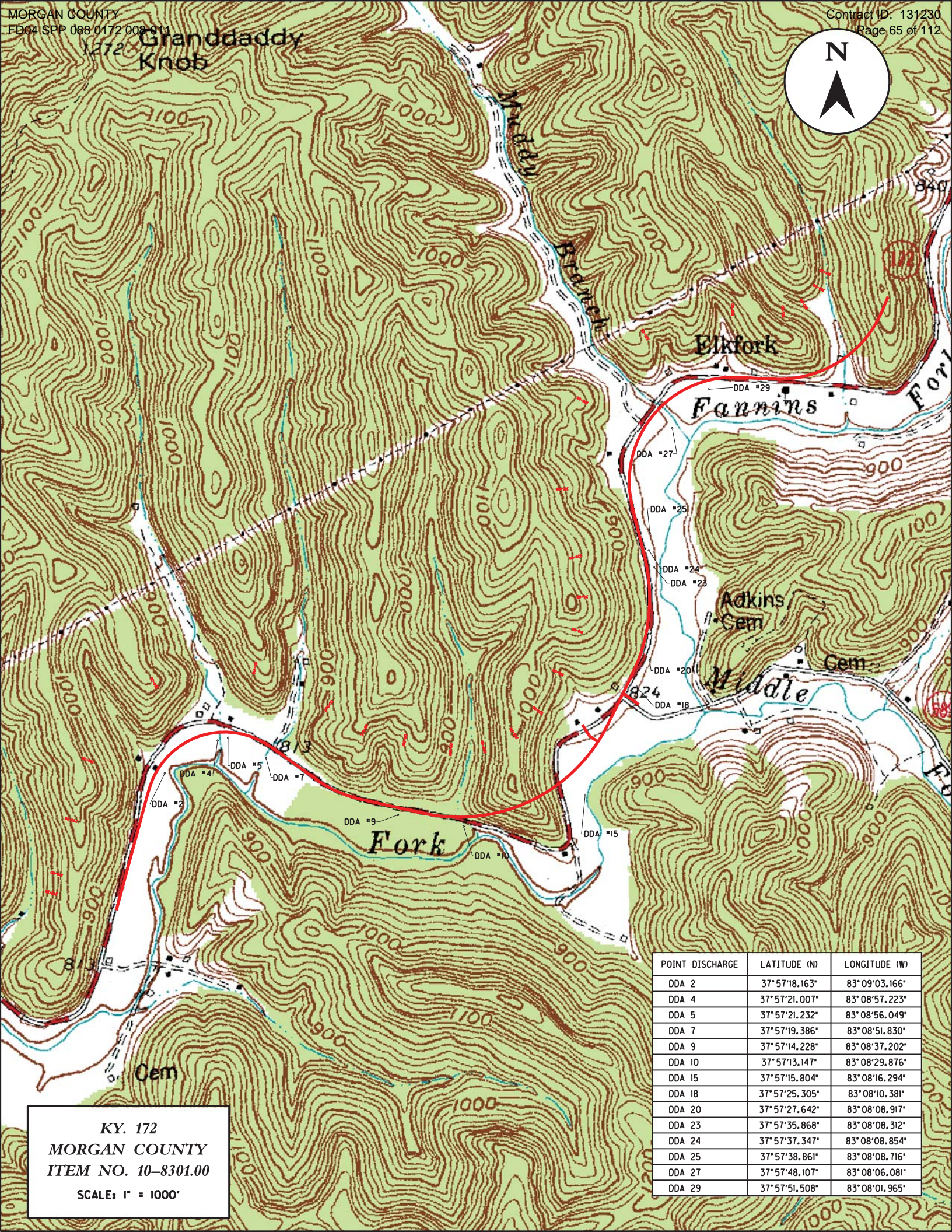
PCN #

SYP Item #10-8301.00 Reconstruct Ky 172 Morgan County

**KPDES NOI for Stormwater Discharges Associated with
Construction Activity Under the KPDES General Permit**

Transaction ID:

c04ca034-a691-4c5b-abfa-d812c4f442e9



KY. 172
MORGAN COUNTY
ITEM NO. 10-8301.00
SCALE: 1" = 1000'

POINT DISCHARGE	LATITUDE (N)	LONGITUDE (W)
DDA 2	37°57'18.163"	83°09'03.166"
DDA 4	37°57'21.007"	83°08'57.223"
DDA 5	37°57'21.232"	83°08'56.049"
DDA 7	37°57'19.386"	83°08'51.830"
DDA 9	37°57'14.228"	83°08'37.202"
DDA 10	37°57'13.147"	83°08'29.876"
DDA 15	37°57'15.804"	83°08'16.294"
DDA 18	37°57'25.305"	83°08'10.381"
DDA 20	37°57'27.642"	83°08'08.917"
DDA 23	37°57'35.868"	83°08'08.312"
DDA 24	37°57'37.347"	83°08'08.854"
DDA 25	37°57'38.861"	83°08'08.716"
DDA 27	37°57'48.107"	83°08'06.081"
DDA 29	37°57'51.508"	83°08'01.965"

KENTUCKY TRANSPORTATION CABINET COMMUNICATION ALL PROMISES (CAP)

Item Number <i>10-8301.00</i>	County MORGAN	Route KY 172	Project Manager kytc\Darren.Back
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CAP #	Date of Promise	Requestor	ocation of Promise:	CAP Description
1	8/27/13	KYTC	Parcel #07 - Terry & Sherry Fannin	"The elevation shall not change from Station 281 + 00 to Station 285 +00 as shown on the roadway plan set." This agreement was entered into via Memorandum of Understanding for Parcel #07, Terry Fannin & Sherry Fannin.

PART II
SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2012* and *Standard Drawings, Edition of 2012 with the 2012 Revision*.

**Supplemental Specifications to the
 Standard Specifications for Road and Bridge Construction, 2012 Edition
 Effective with the September 27, 2013 Letting**

Subsection:	108.03 Preconstruction Conference.
Revision:	Replace 8) Staking with the following: 8) Staking (designated by a Professional Engineer or Land Surveyor licensed in the Commonwealth of Kentucky.
Subsection:	109.07.02 Fuel.
Revision:	Revise item Crushed Aggregate Used for Embankment Stabilization to the following: Crushed Aggregate Used for Stabilization of Unsuitable Materials Used for Embankment Stabilization
Subsection:	110.02 Demobilization.
Revision:	Replace the first part of the first sentence of the second paragraph with the following: Perform all work and operations necessary to accomplish final clean-up as specified in the first paragraph of Subsection 105.12;
Subsection:	112.03.12 Project Traffic Coordinator (PTC).
Revision:	Replace the last paragraph of this subsection with the following: Ensure the designated PTC has sufficient skill and experience to properly perform the task assigned and has successfully completed the qualification courses.
Subsection:	112.04.18 Diversions (By-Pass Detours).
Revision:	Insert the following sentence after the 2nd sentence of this subsection. The Department will not measure temporary drainage structures for payment when the contract documents provide the required drainage opening that must be maintained with the diversion. The temporary drainage structures shall be incidental to the construction of the diversion. If the contract documents fail to provide the required drainage opening needed for the diversion, the cost of the temporary drainage structure will be handled as extra work in accordance with section 109.04.
Subsection:	201.03.01 Contractor Staking.
Revision:	Replace the first paragraph with the following: Perform all necessary surveying under the general supervision of a Professional Engineer or Land Surveyor licensed in the Commonwealth of Kentucky.
Subsection:	201.04.01 Contractor Staking.
Revision:	Replace the last sentence of the paragraph with the following: Complete the general layout of the project under the supervision of a Professional Engineer or Land Surveyor licensed in the Commonwealth of Kentucky.
Subsection:	206.04.01 Embankment-in-Place.
Revision:	Replace the fourth paragraph with the following: The Department will not measure suitable excavation included in the original plans that is disposed of for payment and will consider it incidental to Embankment-in-Place.
Subsection:	208.02.01 Cement.
Revision:	Replace paragraph with the following: Select Type I or Type II cement conforming to Section 801. Use the same type cement throughout the work.

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Subsection:	208.03.06 Curing and Protection.
Revision:	Replace the fourth paragraph with the following: Do not allow traffic or equipment on the finished surface until the stabilized subgrade has cured for a total of 7-days with an ambient air temperature above 40 degrees Fahrenheit. A curing day consists of a continuous 24-hour period in which the ambient air temperature does not fall below 40 degrees Fahrenheit. Curing days will not be calculated consecutively, but must total seven (7) , 24-hour days with the ambient air temperature remaining at or above 40 degrees Fahrenheit before traffic or equipment will be allowed to traverse the stabilized subgrade. The Department may allow a shortened curing period when the Contractor requests. The Contractor shall give the Department at least 3 day notice of the request for a shortened curing period. The Department will require a minimum of 3 curing days after final compaction. The Contractor shall furnish cores to the treated depth of the roadbed at 500 feet intervals for each lane when a shortened curing time is requested. The Department will test cores using an unconfined compression test. Roadbed cores must achieve a minimum strength requirement of 80 psi.
Subsection:	208.03.06 Curing and Protection.
Revision:	Replace paragraph nine with the following: At no expense to the Department, repair any damage to the subgrade caused by freezing.
Subsection:	212.03.03 Permanent Seeding and Protection.
Part:	A) Seed Mixtures for Permanent Seeding.
Number:	2)
Revision:	Replace the paragraph with the following: Permanent Seeding on Slopes Greater than 3:1 in Highway Districts 4, 5, 6, and 7. Apply seed mix Type II at a minimum application rate of 100 pounds per acre. If adjacent to a golf course replace the crown vetch with Kentucky 31 Tall Fescue.
Subsection:	212.03.03 Permanent Seeding and Protection.
Part:	A) Seed Mixtures for Permanent Seeding.
Number:	3)
Revision:	Replace the paragraph with the following: Permanent Seeding on Slopes Greater than 3:1 in Highway Districts 1, 2, 3, 8, 9, 10, 11, and 12. Apply seed mix Type III at a minimum application rate of 100 pounds per acre. If adjacent to crop land or golf course, replace the Sericea Lespedeza with Kentucky 31 Fescue.
Subsection:	213.03.02 Progress Requirements.
Revision:	Replace the last sentence of the third paragraph with the following: Additionally, the Department will apply a penalty equal to the liquidated damages when all aspects of the work are not coordinated in an acceptable manner within 7 calendar days after written notification.
Subsection:	213.03.05 Temporary Control Measures.
Part:	E) Temporary Seeding and Protection.
Revision:	Delete the second sentence of the first paragraph.
Subsection:	304.02.01 Physical Properties.
Table:	Required Geogrid Properties
Revision:	Replace all references to Test Method "GRI-GG2-87" with ASTM D 7737.

**Supplemental Specifications to the
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Subsection: Part: Revision:	402.03.02 Contractor Quality Control and Department Acceptance. B) Sampling. Replace the second sentence with the following: The Department will determine when to obtain the quality control samples using the random-number feature of the mix design submittal and approval spreadsheet. The Department will randomly determine when to obtain the verification samples required in Subsections 402.03.03 and 402.03.04 using the Asphalt Mixture Sample Random Tonnage Generator.
Subsection: Part: Number: Revision:	402.03.02 Contractor Quality Control and Department Acceptance. D) Testing Responsibilities. 3) VMA. Add the following paragraph below Number 3) VMA: Retain the AV/VMA specimens and one additional corresponding G_{mm} sample for 5 working days for mixture verification testing by the Department. For Specialty Mixtures, retain a mixture sample for 5 working days for mixture verification testing by the Department. When the Department's test results do not verify that the Contractor's quality control test results are within the acceptable tolerances according to Subsection 402.03.03, retain the samples and specimens from the affected subplot(s) for the duration of the project.
Subsection: Part: Number: Revision:	402.03.02 Contractor Quality Control and Department Acceptance. D) Testing Responsibilities. 4) Density. Replace the second sentence of the Option A paragraph with the following: Perform coring by the end of the following work day.
Subsection: Part: Number: Revision:	402.03.02 Contractor Quality Control and Department Acceptance. D) Testing Responsibilities. 5) Gradation. Delete the second paragraph.
Subsection: Part: Number: Revision:	402.03.02 Contractor Quality Control and Department Acceptance. H) Unsatisfactory Work. 1) Based on Lab Data. Replace the second paragraph with the following: When the Engineer determines that safety concerns or other considerations prohibit an immediate shutdown, continue work and the Department will make an evaluation of acceptability according to Subsection 402.03.05.

**Supplemental Specifications to the
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Subsection: Revision:	402.03.03 Verification. Replace the first paragraph with the following: 402.03.03 Mixture Verification. For volumetric properties, the Department will perform a minimum of one verification test for AC, AV, and VMA according to the corresponding procedures as given in Subsection 402.03.02. The Department will randomly determine when to obtain the verification sample using the Asphalt Mixture Sample Random Tonnage Generator. For specialty mixtures, the Department will perform one AC and one gradation determination per lot according to the corresponding procedures as given in Subsection 402.03.02. However, Department personnel will not perform AC determinations according to KM 64-405. The Contractor will obtain a quality control sample at the same time the Department obtains the mixture verification sample and perform testing according to the procedures given in Subsection 402.03.02. If the Contractor's quality control sample is verified by the Department's test results within the tolerances provided below, the Contractor's sample will serve as the quality control sample for the affected subplot. The Department may perform the mixture verification test on the Contractor's equipment or on the Department's equipment.
Subsection: Part: Revision:	402.03.03 Verification. A) Evaluation of Subplot(s) Verified by Department. Replace the third sentence of the second paragraph with the following: When the paired <i>t</i> -test indicates that the Contractor's data and Department's data are possibly not from the same population, the Department will investigate the cause for the difference according to Subsection 402.03.05 and implement corrective measures as the Engineer deems appropriate.
Subsection: Part: Revision:	402.03.03 Verification. B) Evaluation of Subplots Not Verified by Department. Replace the third sentence of the first paragraph with the following: When differences between test results are not within the tolerances listed below, the Department will resolve the discrepancy according to Subsection 402.03.05.
Subsection: Part: Revision:	402.03.03 Verification. B) Evaluation of Subplots Not Verified by Department. Replace the third sentence of the second paragraph with the following: When the <i>F</i> -test or <i>t</i> -test indicates that the Contractor's data and Department's data are possibly not from the same population, the Department will investigate the cause for the difference according to Subsection 402.03.05 and implement corrective measures as the Engineer deems appropriate.
Subsection: Part: Revision:	402.03.03 Verification. C) Test Data Patterns. Replace the second sentence with the following: When patterns indicate substantial differences between the verified and non-verified subplots, the Department will perform further comparative testing according to subsection 402.03.05.

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Subsection:	402.03 CONSTRUCTION.
Revision:	Add the following subsection: 402.03.04 Testing Equipment and Technician Verification. For mixtures with a minimum quantity of 20,000 tons and for every 20,000 tons thereafter, the Department will obtain an additional verification sample at random using the Asphalt Mixture Sample Random Tonnage Generator in order to verify the integrity of the Contractor's and Department's laboratory testing equipment and technicians. The Department will obtain a mixture sample of at least 150 lb at the asphalt mixing plant according to KM 64-425 and split it according to AASHTO R 47. The Department will retain one split portion of the sample and provide the other portion to the Contractor. At a later time convenient to both parties, the Department and Contractor will simultaneously reheat the sample to the specified compaction temperature and test the mixture for AV and VMA using separate laboratory equipment according to the corresponding procedures given in Subsection 402.03.02. The Department will evaluate the differences in test results between the two laboratories. When the difference between the results for AV or VMA is not within ± 2.0 percent, the Department will investigate and resolve the discrepancy according to Subsection 402.03.05.
Subsection:	402.03.04 Dispute Resolution.
Revision:	Change the subsection number to 402.03.05.
Subsection:	402.05 PAYMENT.
Part:	Lot Pay Adjustment Schedule Compaction Option A Base and Binder Mixtures
Table:	AC
Revision:	Replace the Deviation from JMF(%) that corresponds to a Pay Value of 0.95 to ± 0.6 .
Subsection:	403.02.10 Material Transfer Vehicle (MTV).
Revision:	Replace the first sentence with the following: In addition to the equipment specified above, provide a MTV with the following minimum characteristics:
Subsection:	412.02.09 Material Transfer Vehicle (MTV).
Revision:	Replace the paragraph with the following: Provide and utilize a MTV with the minimum characteristics outlined in section 403.02.10.
Subsection:	412.03.07 Placement and Compaction.
Revision:	Replace the first paragraph with the following: Use a MTV when placing SMA mixture in the driving lanes. The MTV is not required on ramps and/or shoulders unless specified in the contract. When the Engineer determines the use of the MTV is not practical for a portion of the project, the Engineer may waive its requirement for that portion of pavement by a letter documenting the waiver.
Subsection:	412.04 MEASUREMENT.
Revision:	Add the following subsection: 412.04.03. Material Transfer Vehicle (MTV). The Department will not measure the MTV for payment and will consider its use incidental to the asphalt mixture.

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Subsection:	501.03.19 Surface Tolerances and Testing Surface.
Part:	B) Ride Quality.
Revision:	Add the following to the end of the first paragraph: The Department will specify if the ride quality requirements are Category A or Category B when ride quality is specified in the Contract. Category B ride quality requirements shall apply when the Department fails to classify which ride quality requirement will apply to the Contract.
Subsection:	603.03.06 Cofferdams.
Revision:	Replace the seventh sentence of paragraph one with the following: Submit drawings that are stamped by a Professional Engineer licensed in the Commonwealth of Kentucky.
Subsection:	605.03.04 Tack Welding.
Revision:	Insert the subsection and the following: 605.03.04 Tack Welding. The Department does not allow tack welding.
Subsection:	606.03.17 Special Requirements for Latex Concrete Overlays.
Part:	A) Existing Bridges and New Structures.
Number:	1) Prewetting and Grout-Bond Coat.
Revision:	Add the following sentence to the last paragraph: Do not apply a grout-bond coat on bridge decks prepared by hydrodemolition.
Subsection:	609.03 Construction.
Revision:	Replace Subsection 609.03.01 with the following: 609.03.01 A) Swinging the Spans. Before placing concrete slabs on steel spans or precast concrete release the temporary erection supports under the bridge and swing the span free on its supports. 609.03.01 B) Lift Loops. Cut all lift loops flush with the top of the precast beam once the beam is placed in the final location and prior to placing steel reinforcement. At locations where lift loops are cut, paint the top of the beam with galvanized or epoxy paint.
Subsection:	611.03.02 Precast Unit Construction.
Revision:	Replace the first sentence of the subsection with the following: Construct units according to ASTM C1577, replacing Table 1 (Design Requirements for Precast Concrete Box Sections Under Earth, Dead and HL-93 Live Load Conditions) with KY Table 1 (Precast Culvert KYHL-93 Design Table) , and Section 605 with the following exceptions and additions:
Subsection:	613.03.01 Design.
Number:	2)
Revision:	Replace "AASHTO Standard Specifications for Highway Bridges" with "AASHTO LRFD Bridge Design Specifications"
Subsection:	615.06.02
Revision:	Add the following sentence to the end of the subsection. The ends of units shall be normal to walls and centerline except exposed edges shall be beveled ¾ inch.
Subsection:	615.06.03 Placement of Reinforcement in Precast 3-Sided Units.
Revision:	Replace the reference of 6.6 in the section to 615.06.06.
Subsection:	615.06.04 Placement of Reinforcement for Precast Endwalls.
Revision:	Replace the reference of 6.7 in the section to 615.06.07.

**Supplemental Specifications to the
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Subsection:	615.06.06 Laps, Welds, and Spacing for Precast 3-Sided Units.
Revision:	Replace the subsection with the following: Tension splices in the circumferential reinforcement shall be made by lapping. Laps may not be tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.2 and AASHTO 2012 Bridge Design Guide Section 5.11.6.3. For deformed welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.1 and AASHTO 2012 Bridge Design Guide Section 5.11.6.2. The overlap of welded wire fabric shall be measured between the outer most longitudinal wires of each fabric sheet. For deformed billet-steel bars, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.1. For splices other than tension splices, the overlap shall be a minimum of 12" for welded wire fabric or deformed billet-steel bars. The spacing center to center of the circumferential wires in a wire fabric sheet shall be no less than 2 inches and no more than 4 inches. The spacing center to center of the longitudinal wires shall not be more than 8 inches. The spacing center to center of the longitudinal distribution steel for either line of reinforcing in the top slab shall be not more than 16 inches.
Subsection:	615.06.07 Laps, Welds, and Spacing for Precast Endwalls.
Revision:	Replace the subsection with the following: Splices in the reinforcement shall be made by lapping. Laps may not be tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.2 and AASHTO 2012 Bridge Design Guide Section 5.11.6.3. For deformed welded wire fabric, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.1 and AASHTO 2012 Bridge Design Guide Section 5.11.6.2. For deformed billet-steel bars, the overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.1. The spacing center-to-center of the wire fabric sheet shall not be less than 2 inches or more than 8 inches.
Subsection:	615.08.01 Type of Test Specimen.
Revision:	Replace the subsection with the following: Start-up slump, air content, unit weight, and temperature tests will be performed each day on the first batch of concrete. Acceptable start-up results are required for production of the first unit. After the first unit has been established, random acceptance testing is performed daily for each 50 yd ³ (or fraction thereof). In addition to the slump, air content, unit weight, and temperature tests, a minimum of one set of cylinders shall be required each time plastic property testing is performed.
Subsection:	615.08.02 Compression Testing.
Revision:	Delete the second sentence.
Subsection:	615.08.04 Acceptability of Core Tests.
Revision:	Delete the entire subsection.
Subsection:	615.12 Inspection.
Revision:	Add the following sentences to the end of the subsection: Units will arrive at jobsite with the "Kentucky Oval" stamped on the unit which is an indication of acceptable inspection at the production facility. Units shall be inspected upon arrival for any evidence of damage resulting from transport to the jobsite.

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Subsection:	716.02.02 Paint.
Revision:	Replace sentence with the following: Conform to Section 821.
Subsection:	716.03 CONSTRUCTION.
Revision:	Replace bullet 5) with the following: 5) AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims,
Subsection:	716.03.02 Lighting Standard Installation.
Revision:	Replace the second sentence with the following: Regardless of the station and offset noted, locate all poles/bases behind the guardrail a minimum of four feet from the front face of the guardrail to the front face of the pole base.
Subsection:	716.03.02 Lighting Standard Installation.
Part:	A) Conventional Installation.
Revision:	Replace the third sentence with the following: Orient the transformer base so the door is positioned on the side away from on-coming traffic.
Subsection:	716.03.02 Lighting Standard Installation.
Part:	A) Conventional Installation.
Number:	1) Breakaway Installation and Requirements.
Revision:	Replace the first sentence with the following: For breakaway supports, conform to Section 12 of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.
Subsection:	716.03.02 Lighting Standard Installation.
Part:	B) High Mast Installation
Revision:	Replace the first sentence with the following: Install each high mast pole as noted on plans.
Subsection:	716.03.02 Lighting Standard Installation.
Part:	B) High Mast Installation
Number:	2) Concrete Base Installation
Revision:	Modification of Chart and succeeding paragraphs within this section:

Drilled Shaft Depth Data							
Level Ground		3:1 Ground Slope		2:1 Ground Slope		1.5:1 Ground Slope (2)	
Soil	Rock	Soil	Rock	Soil	Rock	Soil	Rock
17 ft	7 ft	19 ft	7 ft	20 ft	7 ft	(1)	7 ft
Steel Requirements							
Vertical Bars				Ties or Spiral			
Size	Total	Size	Spacing or Pitch				
#10	16	#4	12 inch				

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	<p>(1): Shaft length is 22' for cohesive soil only. For cohesionless soil, contact geotechnical branch for design.</p> <p>(2): Do not construct high mast drilled shafts on ground slopes steeper than 1.5:1 without the approval of the Division of Traffic.</p> <p>If rock is encountered during drilling operations and confirmed by the engineer to be of sound quality, the shaft is only required to be further advanced into the rock by the length of rock socket shown in the table. The total length of the shaft need not be longer than that of soil alone. Both longitudinal rebar length and number of ties or spiral length shall be adjusted accordingly.</p> <p>If a shorter depth is desired for the drilled shaft, the contractor shall provide, for the state's review and approval, a detailed column design with individual site specific soil and rock analysis performed and approved by a Professional Engineer licensed in the Commonwealth of Kentucky.</p> <p>Spiral reinforcement may be substituted for ties. If spiral reinforcement is used, one and one-half closed coils shall be provided at the ends of each spiral unit. Subsurface conditions consisting of very soft clay or very loose saturated sand could result in soil parameters weaker than those assumed. Engineer shall consult with the geotechnical branch if such conditions are encountered.</p> <p>The bottom of the drilled hole shall be firm and thoroughly cleaned so no loose or compressible materials are present at the time of the concrete placement. If the drilled hole contains standing water, the concrete shall be placed using a tremie to displace water. Continuous concrete flow will be required to insure full displacement of any water.</p> <p>The reinforcement and anchor bolts shall be adequately supported in the proper positions so no movement occurs during concrete placement. Welding of anchor bolts to the reinforcing cage is unacceptable, templates shall be used.</p> <p>Exposed portions of the foundation shall be formed to create a smooth finished surface. All forming shall be removed upon completion of foundation construction.</p>
<p>Subsection:</p> <p>Part:</p> <p>Revision:</p>	<p>716.03.03 Trenching.</p> <p>A) Trenching of Conduit for Highmast Ducted Cables.</p> <p>Add the following after the first sentence: If depths greater than 24 inches are necessary, obtain the Engineer's approval and maintain the required conduit depths coming into the junction boxes. No payment for additional junction boxes for greater depths will be allowed.</p>
<p>Subsection:</p> <p>Part:</p> <p>Revision:</p>	<p>716.03.03 Trenching.</p> <p>B) Trenching of Conduit for Non-Highmast Cables.</p> <p>Add the following after the second sentence: If depths greater than 24 inches are necessary for either situation listed previously, obtain the Engineer's approval and maintain the required conduit depths coming into the junction boxes. No payment for additional junction boxes for greater depths will be allowed.</p>
<p>Subsection:</p> <p>Revision:</p>	<p>716.03.10 Junction Boxes.</p> <p>Replace subsection title with the following: Electrical Junction Box.</p>

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Subsection:	716.04.07 Pole with Secondary Control Equipment.
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure mounting the cabinet to the pole, backfilling, restoration, any necessary hardware to anchor pole, or electrical inspection fees, and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breaker, contactor, manual switch, ground rods, and ground wires and will consider them incidental to this item of work.
Subsection:	716.04.08 Lighting Control Equipment.
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure constructing the concrete base, excavation, backfilling, restoration, any necessary anchors, or electrical inspection fees, and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground rods, and ground wires and will consider them incidental to this item of work.
Subsection:	716.04.09 Luminaire.
Revision:	Replace the first sentence with the following: The Department will measure the quantity as each individual unit furnished and installed.
Subsection:	716.04.10 Fused Connector Kits.
Revision:	Replace the first sentence with the following: The Department will measure the quantity as each individual unit furnished and installed.
Subsection:	716.04.13 Junction Box.
Revision:	Replace the subsection title with the following: Electrical Junction Box Type Various.
Subsection:	716.04.13 Junction Box.
Part:	A) Junction Electrical.
Revision:	Rename A) Junction Electrical to the following: A) Electrical Junction Box.
Subsection:	716.04.14 Trenching and Backfilling.
Revision:	Replace the second sentence with the following: The Department will not measure excavation, backfilling, underground utility warning tape (if required), the restoration of disturbed areas to original condition, and will consider them incidental to this item of work.
Subsection:	716.04.18 Remove Lighting.
Revision:	Replace the paragraph with the following: The Department will measure the quantity as a lump sum for the removal of lighting equipment. The Department will not measure the disposal of all equipment and materials off the project by the contractor. The Department also will not measure the transportation of the materials and will consider them incidental to this item of work.

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Subsection:	716.04.20 Bore and Jack Conduit.															
Revision:	Replace the paragraph with the following: The Department will measure the quantity in linear feet. This item shall include all work necessary for boring and installing conduit under an existing roadway. Construction methods shall be in accordance with Sections 706.03.02, paragraphs 1, 2, and 4.															
Subsection:	716.05 PAYMENT.															
Revision:	Replace items 04810-04811, 20391NS835 and, 20392NS835 under <u>Code</u> , <u>Pay Item</u> , and <u>Pay Unit</u> with the following:															
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Subsection:	723.03 CONSTRUCTION.															
Revision:	Replace bullet 5) with the following: 5) AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims,															
Subsection:	723.02.02 Paint.															
Revision:	Replace sentence with the following: Conform to Section 821.															
Subsection:	723.03.02 Poles and Bases Installation.															
Revision:	Replace the first sentence with the following: Regardless of the station and offset noted, locate all poles/bases behind the guardrail a minimum of four feet from the front face of the guardrail to the front face of the pole base.															
Subsection:	723.03.02 Poles and Bases Installation.															
Part:	A) Steel Strain and Mastarm Poles Installation															
Revision:	Replace the second paragraph with the following: For concrete base installation, see Section 716.03.02, B), 2), Paragraphs 2-7. Drilled shaft depth shall be based on the soil conditions encountered during drilling and slope condition at the site. Refer to the design chart below:															
Subsection:	723.03.02 Poles and Bases Installation.															
Part:	B) Pedestal or Pedestal Post Installation.															
Revision:	Replace the fourth sentence of the paragraph with the following: For breakaway supports, conform to Section 12 of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.															
Subsection:	723.03.03 Trenching.															
Part:	A) Under Roadway.															
Revision:	Add the following after the second sentence: If depths greater than 24 inches are necessary, obtain the Engineer's approval and maintain ether required conduit depths coming into the junction boxes. No payment for additional junction boxes for greater depths will be allowed.															

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Subsection:	723.03.11 Wiring Installation.
Revision:	Add the following sentence between the fifth and sixth sentences: Provide an extra two feet of loop wire and lead-in past the installed conduit in poles, pedestals, and junction boxes.
Subsection:	723.03.12 Loop Installation.
Revision:	Replace the fifth sentence with the following: Provide an extra two feet of loop wire and lead-in past the installed conduit in poles, pedestals, and junction boxes.
Subsection:	723.04.02 Junction Box.
Revision:	Replace subsection title with the following: Electrical Junction Box Type.
Subsection:	723.04.03 Trenching and Backfilling.
Revision:	Replace the second sentence with the following: The Department will not measure excavation, backfilling, underground utility warning tape (if required), the restoration of disturbed areas to original condition, and will consider them incidental to this item of work.
Subsection:	723.04.10 Signal Pedestal.
Revision:	Replace the second sentence with the following: The Department will not measure excavation, concrete, reinforcing steel, specified conduits, fittings, ground rod, ground wire, backfilling, restoring disturbed areas, or other necessary hardware and will consider them incidental to this item of work.
Subsection:	723.04.15 Loop Saw Slot and Fill.
Revision:	Replace the second sentence with the following: The Department will not measure sawing, cleaning and filling induction loop saw slot, loop sealant, backer rod, and grout and will consider them incidental to this item of work.
Subsection:	723.04.16 Pedestrian Detector.
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished, installed and connected to pole/pedestal. The Department will not measure installing R10-3e (with arrow) sign, furnishing and installing mounting hardware for sign and will consider them incidental to this item of work.
Subsection:	723.04.18 Signal Controller- Type 170.
Revision:	Replace the second sentence with the following: The Department will not measure constructing the concrete base or mounting the cabinet to the pole, connecting the signal and detectors, excavation, backfilling, restoration, any necessary pole mounting hardware, electric service, or electrical inspection fees and will consider them incidental to this item of work. The Department will also not measure furnishing and connecting the induction of loop amplifiers, pedestrian isolators, load switches, model 400 modem card; furnishing and installing electrical service conductors, specified conduits, anchors, meter base, fused cutout, fuses, ground rods, ground wires and will consider them incidental to this item of work.

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Subsection:	723.04.20 Install Signal Controller - Type 170.
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each individual unit installed. The Department will not measure constructing the concrete base or mounting the cabinet to the pole, connecting the signal and detectors, and excavation, backfilling, restoration, any necessary pole mounting hardware, electric service, or electrical inspection fees and will consider them incidental to this item of work. The Department will also not measure connecting the induction loop amplifiers, pedestrian, isolators, load switches, model 400 modem card; furnishing and installing electrical service conductors, specified conduits, anchors, meter base, fused cutout, fuses, ground rods, ground wires and will consider them incidental to this item of work.
Subsection:	723.04.22 Remove Signal Equipment.
Revision:	Replace the paragraph with the following: The Department will measure the quantity as a lump sum removal of signal equipment. The Department will not measure the return of control equipment and signal heads to the Department of Highways as directed by the District Traffic Engineer. The Department also will not measure the transportation of materials of the disposal of all other equipment and materials off the project by the contractor and will consider them incidental to this item of work.
Subsection:	723.04.28 Install Pedestrian Detector Audible.
Revision:	Replace the second sentence with the following: The Department will not measure installing sign R10-3e (with arrow) and will consider it incidental to this item of work.
Subsection:	723.04.29 Audible Pedestrian Detector.
Revision:	Replace the second sentence with the following: The Department will not measure furnishing and installing the sign R10-3e (with arrow) and will consider it incidental to this item of work.
Subsection:	723.04.30 Bore and Jack Conduit.
Revision:	Replace the paragraph with the following: The Department will measure the quantity in linear feet. This item shall include all work necessary for boring and installing conduit under an existing roadway. Construction methods shall be in accordance with Sections 706.03.02, paragraphs 1, 2, and 4.
Subsection:	723.04.31 Install Pedestrian Detector.
Revision:	Replace the paragraph with the following: The Department will measure the quantity as each individual unit installed and connected to pole/pedestal. The Department will not measure installing sign R 10-3e (with arrow) and will consider it incidental to this item of work.
Subsection:	723.04.32 Install Mast Arm Pole.
Revision:	Replace the second sentence with the following: The Department will not measure arms, signal mounting brackets, anchor bolts, or any other necessary hardware and will consider them incidental to this item of work.
Subsection:	723.04.33 Pedestal Post.
Revision:	Replace the second sentence with the following: The Department will not measure excavation, concrete, reinforcing steel, anchor bolts, conduit, fittings, ground rod, ground wire, backfilling, restoration, or any other necessary hardware and will consider them incidental to this item of work.

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Subsection:	723.04.36 Traffic Signal Pole Base.															
Revision:	Replace the second sentence with the following: The Department will not measure excavation, reinforcing steel, anchor bolts, specified conduits, ground rods, ground wires, backfilling, or restoration and will consider them incidental to this item of work.															
Subsection:	723.04.37 Install Signal Pedestal.															
Revision:	Replace the second sentence with the following: The Department will not measure excavation, concrete, reinforcing steel, anchor bolts, specified conduits, fittings, ground rod, ground wire, backfilling, restoration, or any other necessary hardware and will consider them incidental to this item of work.															
Subsection:	723.04.38 Install Pedestal Post.															
Revision:	Replace the second sentence with the following: The Department will not measure excavation, concrete, reinforcing steel, anchor bolts, specified conduits, fittings, ground rod, ground wire, backfilling, restoration, or any other necessary hardware and will consider them incidental to this item of work.															
Subsection:	723.05 PAYMENT.															
Revision:	Replace items 04810-04811, 20391NS835 and, 20392NS835 under <u>Code</u> , <u>Pay Item</u> , and <u>Pay Unit</u> with the following:															
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Subsection:	813.04 Gray Iron Castings.															
Revision:	Replace the reference to "AASHTO M105" with "ASTM A48".															
Subsection:	813.09.02 High Strength Steel Bolts, Nuts, and Washers.															
Number:	A) Bolts.															
Revision:	Delete first paragraph and "Hardness Number" Table. Replace with the following: A) Bolts. Conform to ASTM A325 (AASHTO M164) or ASTM A490 (AASHTO 253) as applicable.															
Subsection:	814.04.02 Timber Guardrail Posts.															
Revision:	Third paragraph, replace the reference to "AWPA C14" with "AWPA U1, Section B, Paragraph 4.1".															
Subsection:	814.04.02 Timber Guardrail Posts.															
Revision:	Replace the first sentence of the fourth paragraph with the following: Use any of the species of wood for round or square posts covered under AWPA U1.															
Subsection:	814.04.02 Timber Guardrail Posts.															
Revision:	Fourth paragraph, replace the reference to "AWPA C2" with "AWPA U1, Section B, Paragraph 4.1".															
Subsection:	814.04.02 Timber Guardrail Posts.															
Revision:	Delete the second sentence of the fourth paragraph.															
Subsection:	816.07.02 Wood Posts and Braces.															
Revision:	First paragraph, replace the reference to "AWPA C5" with "AWPA U1, Section B, Paragraph 4.1".															

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Subsection:	816.07.02 Wood Posts and Braces.
Revision:	Delete the second sentence of the first paragraph.
Subsection:	818.07 Preservative Treatment.
Revision:	First paragraph, replace all references to "AWPA C14" with "AWPA U1, Section A".
Subsection:	834.14 LIGHTING POLES.
Revision:	Replace the first sentence with the following: Lighting pole design shall be in accordance with loading and allowable stress requirements of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.
Subsection:	834.14.03 High Mast Poles.
Revision:	<p>*Remove the second and fourth sentence from the first paragraph.</p> <p>*Replace the third paragraph with the following: Provide calculations and drawings that are stamped by a Professional Engineer licensed in the Commonwealth of Kentucky.</p> <p>*Replace paragraph six with the following: Provide a pole section that conforms to ASTM A 595 grade A with a minimum yield strength of 55 KSI or ASTM A 572 with a minimum yield strength of 55 KSI. Use tubes that are round or 16 sided with a four inch corner radius, have a constant linear taper of .144 in/ft and contain only one longitudinal seam weld. Circumferential welded tube butt splices and laminated tubes are not permitted. Provide pole sections that are telescopically slip fit assembled in the field to facilitate inspection of interior surface welds and the protective coating. The minimum length of the telescopic slip splices shall be 1.5 times the inside diameter of the exposed end of the female section. Use longitudinal seam welds as commended in Section 5.15 of the AASHTO 2013 Specifications. The thickness of the transverse base shall not be less than 2 inches. Plates shall be integrally welded to the tubes with a telescopic welded joint or a full penetration groove weld with backup bar.</p> <p>The handhole cover shall be removable from the handhole frame. One the frame side opposite the hinge, provide a mechanism on the handhole cover/frame to place the Department's standard padlock as specified in Section 834.25. The handhole frame shall have two stainless studs installed opposite the hinge to secure the handhole cover to the frame which includes providing stainless steel wing nuts and washers. The handhole cover shall be manufactured from 0.25 inch thick galvanized steel (ASTM A 153) and have a neoprene rubber gasket that is permanently secured to the handhole frame to insure weather-tight protection. The hinge shall be manufactured from 7-guage stainless steel to provide adjustability to insure weather-tight fit for the cover. The minimum clear distance between the transverse plate and the bottom opening of the handhole shall not be less than the diameter of the bottom tube of the pole but needs to be at least 15 inches. The handhole frame width shall be 0.4 times the diameter of the bottom tube.</p> <p>Provide products that are hot-dip galvanized to the requirements of either ASTM A123 (fabricated products) or ASTM A 153 (hardware items).</p>
Subsection:	834.16 ANCHOR BOLTS.
Revision:	Insert the following sentence at the beginning of the paragraph: The anchor bolt design shall follow the NCHRP Report 494 Section 2.4 and NCHRP 469 Appendix A Specifications.

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Subsection:	834.17.01 Conventional.
Revision:	Add the following sentence after the second sentence: Provide a waterproof sticker mounted on the bottom of the housing that is legible from the ground and indicates the wattage of the fixture by providing the fist to numbers of the wattage.
Subsection:	834.21.01 Waterproof Enclosures.
Revision:	*Add the following sentence in the second paragraph in the thirteenth sentence: Provide a cabinet door with a louvered air vent, Filter-retaining brackets and an easy clean metal filter. *Replace sentence sixteen with the following: Use a 120-volt fixture and utilize a compact fluorescent or L.E.D. bulb (equivalent to 60 watt minimum).
Subsection:	835.07 Traffic Poles.
Revision:	Replace the first sentence of the first paragraph with the following: Pole diameter and wall thickness shall be calculated in accordance with the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.
Subsection:	835.07 Traffic Poles.
Revision:	*Replace the first sentence of the fourth paragraph with the following: Ensure transverse plats have a thickness ≥ 2 inches. *Add the following sentence to the end of the fourth paragraph: The bottom pole diameter shall not be less than 16.25 inches.
Subsection:	835.07 Traffic Poles.
Revision:	Replace the second sentence of the fifth paragraph with the following: For anchor bolt design, pole forces shall be positioned in such a manner to maximize the force on any individual anchor bolt regardless of the actual anchor bolt orientation with the pole.
Subsection:	835.07 Traffic Poles.
Revision:	Replace the first and second sentence of the sixth paragraph with the following: The pole handhole shall be 25 inches by 6.5 inches. The handhole cover shall be removable from the handhole frame. On the frame side opposite the hinge, provide a mechanism on the handhole cover/frame to place the Department's standard padlock as specified in Section 834.25. The handhole frame shall have two stainless studs installed opposite the hinge to secure the handhole cover to the frame which includes providing stainless steel wing nuts and washers. The handhole cover shall be manufactured from 0.25 inch thick galvanized steel (ASTM 153) and have a neoprene rubber gasket that is permanently secured to the handhole frame to insure weather-tight protection. The hinge shall be manufactured from 7 gauge stainless steel to provide adjustability to insure a weather-tight fit for the cover. The minimum clear distance between the transverse plate and the bottom opening of the handhole shall not be less than the diameter of the bottom tube but needs to be at least 12 inches.
Subsection:	835.07 Traffic Poles.
Revision:	*Replace the first sentence of the last paragraph with the following: Provide calculations and drawings that are stamped by a Professional Engineer licensed in the Commonwealth of Kentucky. *Replace the third sentence of the last paragraph with the following: All tables referenced in 835.07 are found in the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims.

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Subsection:	835.07.01 Steel Strain Poles.
Revision:	Replace the second sentence of the second paragraph with the following: The detailed analysis shall be certified by a Professional Engineer licensed in the Commonwealth of Kentucky.
Subsection:	835.07.01 Steel Strain Poles.
Revision:	Replace number 7. after the second paragraph with the following: 7. Fatigue calculations should be shown for all fatigue related connections. Provide the corresponding detail, stress category and example from table 11.9.3.1-1.
Subsection:	835.07.02 Mast Arm Poles.
Revision:	Replace the second sentence of the fourth paragraph with the following: The detailed analysis shall be certified by a Professional Engineer licensed in the Commonwealth of Kentucky.
Subsection:	835.07.02 Mast Arm Poles.
Revision:	Replace number 7) after the fourth paragraph with the following: 7) Fatigue calculations should be shown for all fatigue related connections. Provide the corresponding detail, stress category and example from table 11.9.3.1-1.
Subsection:	835.07.03 ANCHORS.
Revision:	Add the following to the end of the paragraph: There shall be two steel templates (one can be used for the headed part of the anchor bolt when designed in this manner) provided per pole. Templates shall be contained within a 26.5 inch diameter. All templates shall be fully galvanized (ASTM A 153).
Subsection:	835.16.05 Optical Units.
Revision:	Replace the 3rd paragraph with the following: The list of certified products can be found on the following website: http://www.intertek.com .
Subsection:	835.19.01 Pedestrian Detector Body.
Revision:	Replace the first sentence with the following: Provide a four holed pole mounted aluminum rectangular housing that is a compatible with the pedestrian detector.

SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

This Special Note will apply when indicated on the plans or in the proposal.

1.0 DESCRIPTION. Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

2.0 MATERIALS.

2.1 General. Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

2.2 Sign and Controls. All signs must:

- 1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
- 2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
- 3) Provide a controller consisting of:
 - a) Keyboard or keypad.
 - b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
 - c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
 - d) Logic circuitry to control the sequence of messages and flash rate.
- 4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
- 5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
- 6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
- 7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
- 8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
- 9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
- 10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
- 11) Provide a photocell control to provide automatic dimming.

- 12) Allow an on-off flashing sequence at an adjustable rate.
- 13) Provide a sight to aim the message.
- 14) Provide a LED display color of approximately 590 nm amber.
- 15) Provide a controller that is password protected.
- 16) Provide a security device that prevents unauthorized individuals from accessing the controller.
- 17) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

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

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

2.3 Power.

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

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

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

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

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

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

11

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

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

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

Effective June 15, 2012

SPECIAL NOTE FOR BARCODE LABEL ON PERMANENT SIGNS

1.0 DESCRIPTION. Install barcode label on sign as specified in the Contract. Section references herein are to the Department’s 2012 Standard Specifications for Road and Bridge Construction.

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

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

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

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

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

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

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

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

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

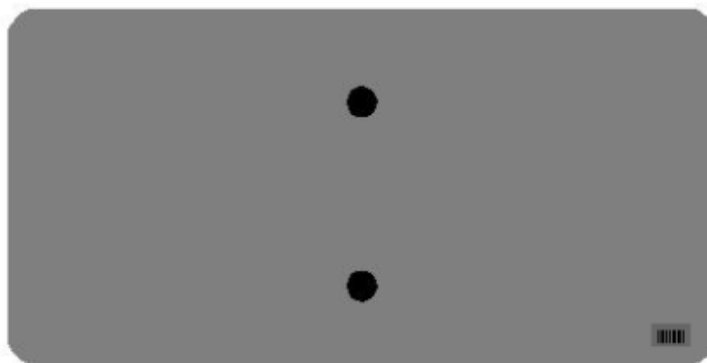
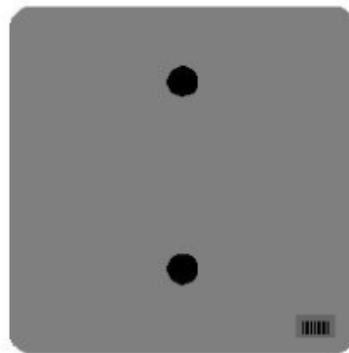
<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24631EC	Barcode Sign Inventory	Each

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

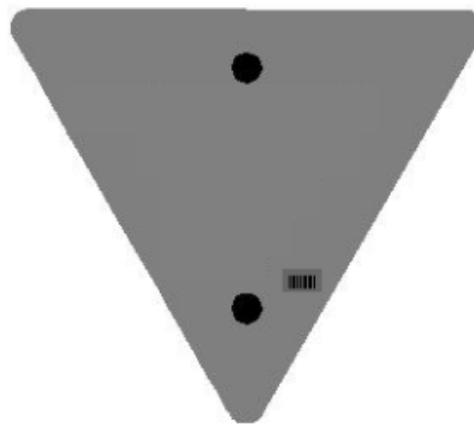
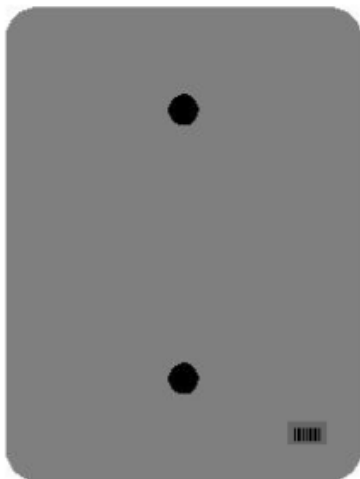
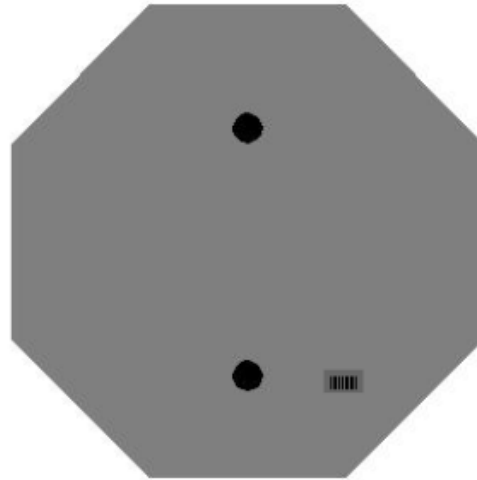
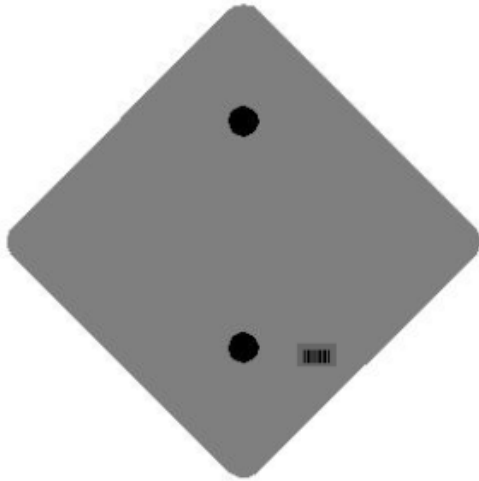
One Sign Post



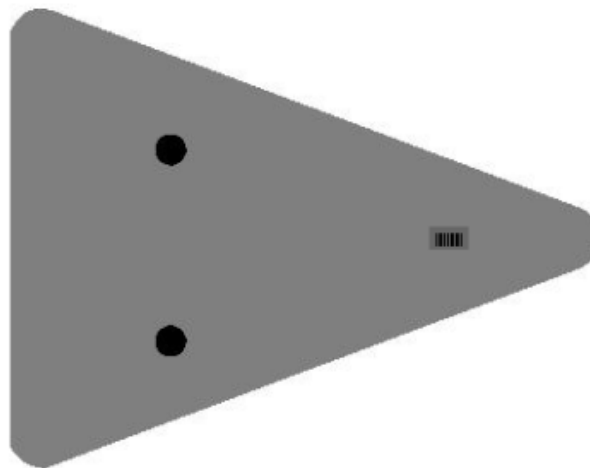
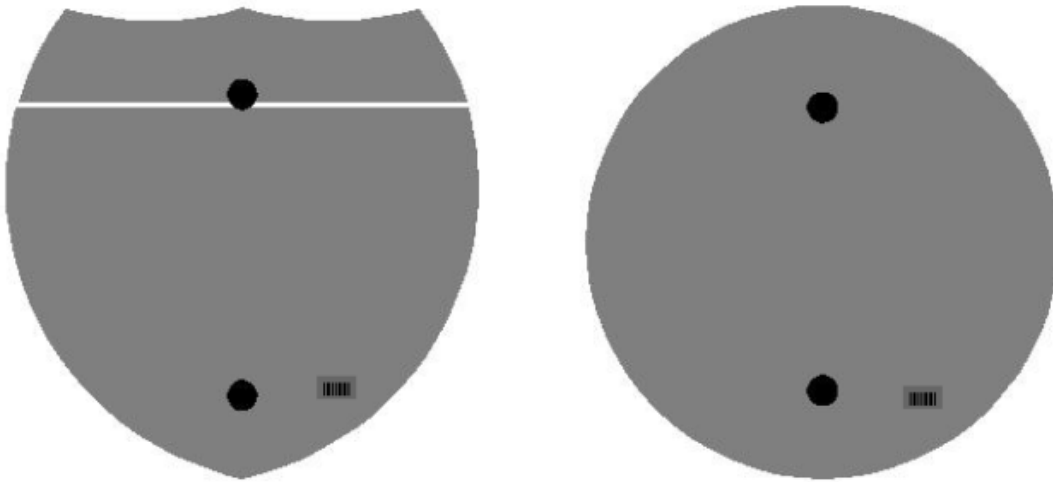
↑
2" Wide Post



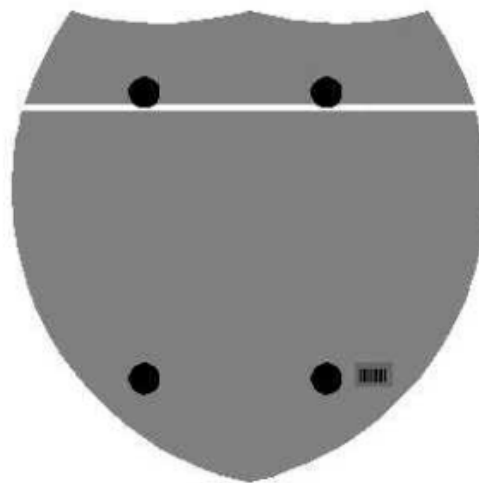
One Sign Post



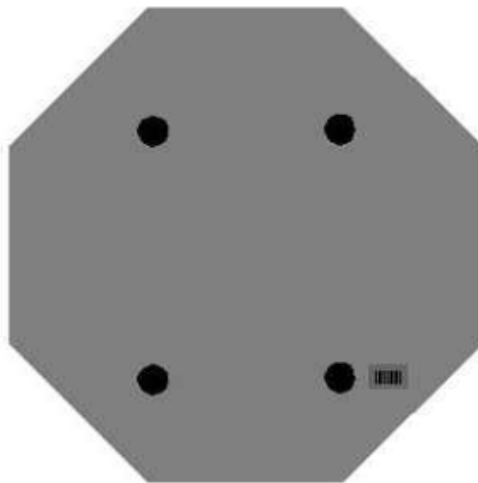
One Sign Post



Double Sign Post



Interstate
Shield

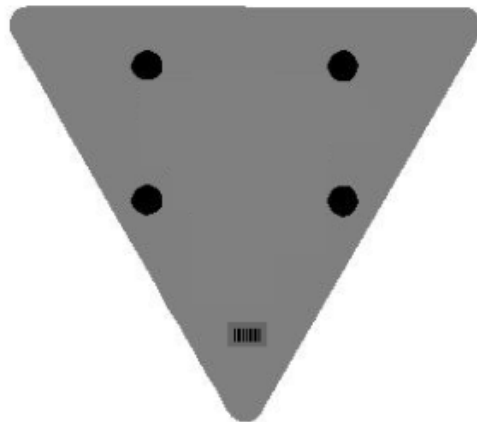


48" Stop

2 Post Signs



↑
2" Wide Post



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 administering 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 work-week 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 apply to this Contract. The apparent low Bidder will be required to submit EEO forms to the Division of Construction Procurement, which will then forward to the Finance and Administration Cabinet for review and approval. No award will become effective until all forms are submitted and EEO/CC has certified compliance. The required EEO forms are as follows:

- EEO-1: Employer Information Report
- Affidavit of Intent to Comply
- Employee Data Sheet
- Subcontractor Report

These forms are available on the Finance and Administration's web page under ***Vendor Information, Standard Attachments and General Terms*** at the following address:
<https://www.eProcurement.ky.gov>.

Bidders currently certified as being in compliance by the Finance and Administration Cabinet may submit a copy of their approval letter in lieu of the referenced EEO forms.

For questions or assistance please contact the Finance and Administration Cabinet by email at **finance.contractcompliance@ky.gov** or by phone at 502-564-2874.

KENTUCKY LABOR CABINET
PREVAILING WAGE DETERMINATION
CURRENT REVISION
HIGHWAY CONSTRUCTION LOCALITY NO. II

Determination No. CR-13-II-HWY

Project No. Highway

Date of Determination: April 15, 2013


This schedule of the prevailing rate of wages for Locality No. II including the counties of ADAIR, BARREN, BELL, BREATHITT, CASEY, CLAY, CLINTON, CUMBERLAND, ESTILL, FLOYD, GARRARD, GREEN, HARLAN, HART, JACKSON, JOHNSON, KNOTT, KNOX, LAUREL, LAWRENCE, LEE, LESLIE, LETCHER, LINCOLN, MCCREARY, MAGOFFIN, MARTIN, MENIFEE, METCALFE, MONROE, MORGAN, OWSLEY, PERRY, PIKE, POWELL, PULASKI, ROCKCASTLE, RUSSELL, TAYLOR, WAYNE, WHITLEY, and WOLFE has been determined in accordance with the provisions of KRS 337.505 to 337.550. This determination shall be referred to as Prevailing Wage Determination No. CR-13-II-HWY.

The following schedule of rates is to be used for highway construction projects advertised or awarded by the Kentucky Transportation Cabinet. This includes any contracts for the relocation of any utilities or other incidental construction projects advertised or awarded by public authorities as a result of the highway construction project.

Apprentices or trainees shall be permitted to work in accordance with Administrative Regulations adopted by the Commissioner of the Department of Workplace Standards. Copies of these regulations will be furnished upon request to any interested person.

Overtime is to be computed at not less than one and one-half (1 1/2) times the indicated BASE RATE for all hours worked in excess of eight (8) hours per day, or in excess of forty (40) hours per week. However, KRS 337.540 permits an employee and employer to agree, in writing, that the employee will be compensated at a straight time base rate for hours worked in excess of eight (8) hours in any one calendar day, but not more than ten (10) hours worked in any one calendar day, if such written agreement is prior to the over eight (8) hours in a calendar day actually being worked, or where provided for in a collective bargaining agreement. The fringe benefit rate is to be paid for each hour worked at a straight time rate for all hours worked. Fringe benefit amounts are applicable for all hours worked except when otherwise noted. Welders will receive rate for craft in which welding is incidental.

No laborer, workman or mechanic shall be paid at a rate less than that of the General Laborer except those classified as bona fide apprentices registered with the Kentucky State Apprenticeship Supervisor unless otherwise specified in this schedule of wage rates.



Michael Donta, Deputy Commissioner
Department of Workplace Standards

<u>CLASSIFICATIONS</u>	<u>RATE AND FRINGE BENEFITS</u>	
BOILERMAKERS:	BASE RATE	\$24.65
	FRINGE BENEFIT	12.94
<hr/>		
BRICKLAYERS:		
Bricklayers:	BASE RATE	\$22.90
	FRINGE BENEFITS	8.50
Stone Mason:	BASE RATE	\$21.50
	FRINGE BENEFITS	8.50
<hr/>		
CARPENTERS:		
Carpenters:	BASE RATE	\$24.15
	FRINGE BENEFITS	13.50
Piledrivers:	BASE RATE	\$23.80
	FRINGE BENEFITS	13.50
<hr/>		
CEMENT MASONS:	BASE RATE	\$21.25
	FRINGE BENEFITS	8.50
<hr/>		
ELECTRICIANS:	*BASE RATE	\$29.36
	FRINGE BENEFITS	10.55
<p>*When workmen are required to work from bosum chairs, trusses, stacks, tanks, scaffolds, catwalks, radio and T.V. towers, structural steel (open, unprotected, unfloored raw steel), and bridges or similar hazardous locations where workmen are subject to a direct fall, except where using JLG's and bucket trucks up to 75 feet: Add 25% to workman's base rate for 50 to 75 feet, and add 50% to workman's base rate for over 75 feet.</p>		
LINEMAN:	*BASE RATE	\$30.09
	FRINGE BENEFITS	10.94
EQUIPMENT OPERATOR:	*BASE RATE	\$26.90
	FRINGE BENEFITS	10.31
GROUNDSMAN:	*BASE RATE	\$17.79
	FRINGE BENEFITS	8.51
<hr/>		
IRONWORKERS:	BASE RATE	\$ 26.34
	FRINGE BENEFITS	18.84

CLASSIFICATIONS

RATE AND FRINGE BENEFITS

LABORERS:

GROUP 1: Aging and curing of concrete (any mode or method), asbestos abatement worker, asphalt plant laborers, asphalt laborers; batch truck dumpers; carpenter tenders, cement mason tenders, cleaning of machines, concrete laborers, demolition laborers, dredging laborers, drill helper, environmental laborer - nuclear, radiation, toxic and hazardous waste – Level D, flagmen, grade checkers, all hand digging and hand back filling, highway marker placers, landscaping laborers, mesh handlers and placers, puddler, railroad laborers, rip-rap and grouters, right of way laborers, sign, guard rail and fence installers (all types), signalmen, sound barrier installer, storm and sanitary sewer laborers, swampers, truck spotters and dumpers, wrecking of concrete forms, general cleanup:

HEAVY & HIGHWAY	BASE RATE	\$21.15
	FRINGE BENEFITS	11.41

GROUP 2: Batter board men (sanitary and storm sewer), brickmason tenders, mortar mixer operator, scaffold builders, burner and welder, bushammers, chain saw operator, concrete saw operators, deckhand scow man, dry cement handlers, environmental laborers – nuclear, radiation, toxic and hazardous waste – Level C, forklift operators for masonry, form setters, green concrete cutting, hand operated grouter and grinder machine operator, jack hammers, lead paint abatement, pavement breakers, paving joint machine, pipe layers – laser operators (non-metallic), plastic pipe fusion, power driven Georgia buggy and wheel barrow, power post hole diggers, precast manhole setters, walk-behind tampers, walk-behind trenchers, sand blasters, concrete chippers, surface grinders, vibrator operators, wagon drillers:

HEAVY & HIGHWAY	BASE RATE	\$21.40
	FRINGE BENEFITS	11.41

GROUP 3: Air track driller (all types), asphalt luteman and rakersm gunnite nozzleman, gunnite operators and mixers, grout pump operator, powderman and blaster, side rail setters, rail paved ditches, screw operators, tunnel laborers (free air), and water blasters:

HEAVY & HIGHWAY	BASE RATE	\$21.45
	FRINGE BENEFITS	11.41

GROUP 4: Caisson workers (free air), cement finishers, environmental laborer – nuclear, radiation, toxic and hazardous waste – Level A and B, miners and drillers (free air), tunnel blasters, and tunnel mockers (free air), directional and horizontal boring, air track drillers (all types), powder man and blasters, troxler and concrete tester if laborer is utilized:

HEAVY & HIGHWAY	BASE RATE	\$22.05
	FRINGE BENEFITS	11.41

OPERATING ENGINEERS:

Group A-1:

NCCCO or OECF Certified; Crane, dragline, hoist (1 drum when used for stack or chimney construction or repair), hoisting engineer (2 or more drums), orangepeel, overhead crane, piledriver, truck crane, tower crane, hydraulic crane:

BASE RATE	\$28.40
FRINGE BENEFITS	13.40

CLASSIFICATIONS

RATE AND FRINGE BENEFITS

Group A:

Auto patrol, batcher plant, bituminous paver, cable-way, clamshell, concrete mixer (21 cu. ft. or over), concrete pump, crane, crusher plant, derrick, derrick boat, ditching and trenching machine, dragline, dredge engineer, elevator (regardless of ownership when used for hoisting any building material), elevating grader and all types of loaders, hoe-type machine, hoisting engine, locomotive, LeTourneau or carry-all scoop, bulldozer, mechanic, orangepeel bucket, piledriver, power blade, roller (bituminous), roller (earth), roller (rock), scarifier, shovel, tractor shovel, truck crane, well points, winch truck, push dozer, grout pump, high lift, fork lift (regardless of lift height), all types of boom cats, multiple operator, core drill, tow or push boat, A-Frame winch truck, concrete paver, gradeall, hoist, hyster, material pump, pumpcrete, ross carrier, sheepfoot, sideboom, throttle-valve man, rotary drill, power generator, mucking machine, rock spreader attached to equipment, scoopmobile, KeCal loader, tower cranes (French, German and other types), hydrocrane, tugger, backfiller guries, self-propelled compactor, self-contained hydraulic percussion drill:

BASE RATE \$27.35
FRINGE BENEFITS 13.40

Group B:

All air compressors (200 cu. ft. per min. or greater capacity), bituminous mixer, concrete mixer (under 21 cu. ft.), welding machine, form grader, tractor (50 H.P. and over), bull float, finish machine, outboard motor boat, brakeman, mechanic helper, whirly oiler, tractair and road widening trencher, articulating trucks:

BASE RATE \$24.87
FRINGE BENEFITS 13.40

Group B2:

Greaser on grease facilities servicing heavy equipment:

BASE RATE \$25.26
FRINGE BENEFITS 13.40

Group C:

Bituminous distributor, cement gun, conveyor, mud jack, paving joint machine, pump, tamping machine, tractors (under 50 H.P.), vibrator, oiler, air compressors (under 200 cu. ft. per min. capacity), concrete saw, burlap and curing machine, hydro seeder, power form handling equipment, deckhand oiler, hydraulic post driver:

BASE RATE \$24.60
FRINGE BENEFITS 13.40

PAINTERS:

All Excluding Bridges:

BASE RATE \$19.92
FRINGE BENEFITS 9.57

Bridges:

BASE RATE \$23.92
FRINGE BENEFITS 10.07

<u>CLASSIFICATIONS</u>	<u>RATE AND FRINGE BENEFITS</u>	
PLUMBERS:	BASE RATE	\$22.52
	FRINGE BENEFITS	7.80
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SHEET METAL:	BASE RATE	\$20.40
	FRINGE BENEFITS	7.80
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TRUCK DRIVERS:		
Truck helper and warehouseman:	BASE RATE	\$22.45
	FRINGE BENEFITS	13.50
Driver, winch truck and A-Frame when used in transporting materials:	BASE RATE	\$22.55
	FRINGE BENEFITS	13.50
Driver, (semi-trailer or pole trailer), driver (dump truck, tandem axle), driver of distributor:	BASE RATE	\$22.65
	FRINGE BENEFITS	13.50
Driver on mixer trucks (all types):	BASE RATE	\$22.70
	FRINGE BENEFITS	13.50
Truck mechanic:	BASE RATE	\$22.75
	FRINGE BENEFITS	13.50
Driver (3 tons and under), tire changer and truck mechanic helper:	BASE RATE	\$22.78
	FRINGE BENEFITS	13.50
Driver on pavement breakers:	BASE RATE	\$22.80
	FRINGE BENEFITS	13.50
Driver (over 3 tons), driver (truck mounted rotary drill):	BASE RATE	\$22.99
	FRINGE BENEFITS	13.50
Driver, Euclid and other heavy earth moving equipment and Low Boy:	BASE RATE	\$23.56
	FRINGE BENEFITS	13.50
Greaser on greasing facilities:	BASE RATE	\$23.65
	FRINGE BENEFITS	13.50

Kentucky Determination No. CR-13-II-HWY dated April 15, 2013

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

No laborer, workman or mechanic shall be paid at a rate less than that of the General Laborer except those classified as bona fide apprentices registered with the Kentucky State Apprenticeship Supervisor unless otherwise specified in this schedule of wage rates.

These rates are listed pursuant to the Kentucky Determination No. CR-13-II-HWY dated April 15, 2013. Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contract or shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the numbers of hours worked in each classification at the prescribed hourly base rate.

OVERTIME:

Overtime is to be paid after an employee works eight (8) hours a day or forty (40) hours a week, whichever gives the employee the greater wage. At least time and one-half the base rate is required for all overtime. A laborer, workman or mechanic and an employer may enter into a written agreement or a collective bargaining agreement to work more than eight (8) hours a calendar day but not more than ten (10) hours a calendar day for the straight time hourly rate. Wage violations or questions should be directed to the designated Engineer or to the undersigned.

Ryan Griffith, Acting Director
Division of Construction Procurement
Frankfort, Kentucky 40622

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

PROPOSAL BID ITEMS

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Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FP	AMOUNT
0010	00003		CRUSHED STONE BASE	14,212.00	TON		\$	
0020	00020		TRAFFIC BOUND BASE	440.00	TON		\$	
0030	00100		ASPHALT SEAL AGGREGATE	264.00	TON		\$	
0040	00103		ASPHALT SEAL COAT	32.00	TON		\$	
0050	00190		LEVELING & WEDGING PG64-22	2,950.00	TON		\$	
0060	00221		CL2 ASPH BASE 0.75D PG64-22	5,432.00	TON		\$	
0070	00301		CL2 ASPH SURF 0.38D PG64-22	2,224.00	TON		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FP	AMOUNT
0080	00078		CRUSHED AGGREGATE SIZE NO 2	830.00	TON		\$	
0090	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	23.00	EACH		\$	
0100	02014		BARRICADE-TYPE III	8.00	EACH		\$	
0110	02091		REMOVE PAVEMENT	5,674.00	SQYD		\$	
0120	02159		TEMP DITCH	10,282.00	LF		\$	
0130	02200		ROADWAY EXCAVATION	391,527.00	CUYD		\$	
0140	02204		SPECIAL EXCAVATION	400.00	CUYD		\$	
0150	02242		WATER (FOR DUST CONTROL)	250.00	MGAL		\$	
0160	02351		GUARDRAIL-STEEL W BEAM-S FACE	1,775.00	LF		\$	
0170	02360		GUARDRAIL TERMINAL SECTION NO 1	9.00	EACH		\$	
0180	02371		GUARDRAIL END TREATMENT TYPE 7	5.00	EACH		\$	
0190	02391		GUARDRAIL END TREATMENT TYPE 4A	3.00	EACH		\$	
0200	02397		TEMP GUARDRAIL	1,337.50	LF		\$	
0210	02429		RIGHT-OF-WAY MONUMENT TYPE 1	81.00	EACH		\$	
0220	02432		WITNESS POST	3.00	EACH		\$	
0230	02488		CHANNEL LINING CLASS IV	1,672.50	CUYD		\$	
0240	02545		CLEARING AND GRUBBING (APPROXIMATELY 47 ACRES)	1.00	LS		\$	
0250	02562		TEMPORARY SIGNS	424.00	SQFT		\$	
0260	02585		EDGE KEY	63.00	LF		\$	
0270	02599		FABRIC-GEOTEXTILE TYPE IV	2,500.00	SQYD		\$	
0280	02600		FABRIC GEOTEXTILE TY IV FOR PIPE	4,494.00	SQYD		\$	
0290	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0300	02651		DIVERSIONS (BY-PASS DETOURS)	1.00	LS		\$	
0310	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		\$	
0320	02690		SAFELOADING	5.00	CUYD		\$	
0330	02701		TEMP SILT FENCE	10,282.00	LF		\$	
0340	02703		SILT TRAP TYPE A	47.00	EACH		\$	
0350	02704		SILT TRAP TYPE B	47.00	EACH		\$	
0360	02705		SILT TRAP TYPE C	47.00	EACH		\$	
0370	02706		CLEAN SILT TRAP TYPE A	141.00	EACH		\$	
0380	02707		CLEAN SILT TRAP TYPE B	141.00	EACH		\$	
0390	02708		CLEAN SILT TRAP TYPE C	141.00	EACH		\$	
0400	02709		CLEAN TEMP SILT FENCE	10,282.00	LF		\$	
0410	02726		STAKING	1.00	LS		\$	

PROPOSAL BID ITEMS

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FP	AMOUNT
0420	05950		EROSION CONTROL BLANKET	11,423.00	SQYD		\$	
0430	05952		TEMP MULCH	226,812.00	SQYD		\$	
0440	05953		TEMP SEEDING AND PROTECTION	226,812.00	SQYD		\$	
0450	05966		TOPDRESSING FERTILIZER	6.24	TON		\$	
0460	05985		SEEDING AND PROTECTION	120,603.00	SQYD		\$	
0470	06510		PAVE STRIPING-TEMP PAINT-4 IN	30,000.00	LF		\$	
0480	06514		PAVE STRIPING-PERM PAINT-4 IN	31,278.00	LF		\$	
0490	10020NS		FUEL ADJUSTMENT	89,495.00	DOLL		\$	
0500	10030NS		ASPHALT ADJUSTMENT	41,465.00	DOLL		\$	
0510	20458ES403		CENTERLINE RUMBLE STRIPS	9,940.00	LF		\$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FP	AMOUNT
0520	00441		ENTRANCE PIPE-18 IN	431.00	LF		\$	
0530	00443		ENTRANCE PIPE-24 IN	57.00	LF		\$	
0540	00462		CULVERT PIPE-18 IN	215.00	LF		\$	
0550	00464		CULVERT PIPE-24 IN	352.00	LF		\$	
0560	00466		CULVERT PIPE-30 IN	110.00	LF		\$	
0570	00468		CULVERT PIPE-36 IN	198.00	LF		\$	
0580	00469		CULVERT PIPE-42 IN	82.00	LF		\$	
0590	00474		CULVERT PIPE-72 IN	98.00	LF		\$	
0600	01000		PERFORATED PIPE-4 IN	114.00	LF		\$	
0610	01010		NON-PERFORATED PIPE-4 IN	20.00	LF		\$	
0620	01024		PERF PIPE HEADWALL TY 2-4 IN	2.00	EACH		\$	
0630	01208		PIPE CULVERT HEADWALL-24 IN	2.00	EACH		\$	
0640	01210		PIPE CULVERT HEADWALL-30 IN	1.00	EACH		\$	
0650	01212		PIPE CULVERT HEADWALL-36 IN	2.00	EACH		\$	
0660	01214		PIPE CULVERT HEADWALL-42 IN	2.00	EACH		\$	
0670	01450		S & F BOX INLET-OUTLET-18 IN	5.00	EACH		\$	
0680	01451		S & F BOX INLET-OUTLET-24 IN	6.00	EACH		\$	
0690	01452		S & F BOX INLET-OUTLET-30 IN	1.00	EACH		\$	
0700	01453		S & F BOX INLET-OUTLET-36 IN	2.00	EACH		\$	
0710	23131ER701		PIPELINE VIDEO INSPECTION	957.00	LF		\$	
0720	24025EC		PIPE CULVERT HEADWALL-72 IN	2.00	EACH		\$	

Section: 0004 - BRIDGE CULVERT - 7' X 4' R.C.B.C. HEADWALLS (PRECAST)

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FP	AMOUNT
0730	08100		CONCRETE-CLASS A	10.70	CUYD		\$	
0740	08150		STEEL REINFORCEMENT	652.00	LB		\$	
0750	20092ES611		PRECAST CONCRETE BOX CULVERT (7' X 4' R.C.B.C)	82.00	LF		\$	

Section: 0005 - BRIDGE CULVERT - 10' X 4' R.C.B.C. STRUCTURE DRAWING 27062

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FP	AMOUNT
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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FP	AMOUNT
0760	02220		FLOWABLE FILL	35.30	CUYD		\$	
0770	02223		GRANULAR EMBANKMENT	168.00	CUYD		\$	
0780	08003		FOUNDATION PREPARATION	1.00	LS		\$	
0790	08100		CONCRETE-CLASS A	129.80	CUYD		\$	
0800	08150		STEEL REINFORCEMENT	14,553.00	LB		\$	

Section: 0006 - BRIDGE CULVERT- STRUCTURE DRAWING 27063

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FP	AMOUNT
0810	02223		GRANULAR EMBANKMENT	209.00	CUYD		\$	
0820	08003		FOUNDATION PREPARATION	1.00	LS		\$	
0830	08100		CONCRETE-CLASS A	179.60	CUYD		\$	
0840	08150		STEEL REINFORCEMENT	23,307.00	LB		\$	

Section: 0007 - SIGNING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FP	AMOUNT
0850	06406		SBM ALUM SHEET SIGNS .080 IN	168.72	SQFT		\$	
0860	06407		SBM ALUM SHEET SIGNS .125 IN	30.88	SQFT		\$	
0870	06411		STEEL POST TYPE 2	392.00	LF		\$	
0880	06412		STEEL POST MILE MARKERS	4.00	EACH		\$	
0890	06427		TRENCHING	8,400.00	LF		\$	
0900	24631EC		BARCODE SIGN INVENTORY	47.00	EACH		\$	

Section: 0008 - WATERLINE RELOCATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FP	AMOUNT
0910	03423		REMOVE METER (SALVAGE EXISTING WATER METER)	6.00	EACH		\$	
0920	03437		RECONNECT SERVICE (CONNECT TO EXISTING WATER LINE, ALL SIZES & TYPES)	7.00	EACH		\$	
0930	03526		GATE VALVE-6 IN	1.00	EACH		\$	
0940	20169EC		RECONNECT METER (EXISTING WATER METER)	4.00	EACH		\$	
0950	20311EC		SERVICE LINE-3/4 IN (TYPE K, COPPER)	1,562.00	LF		\$	
0960	20481EC		CREEK CROSSING (TYPE "B")	280.00	LF		\$	
0970	20582ND		PROPOSED WATER METER	5.00	EACH		\$	
0980	21788ED		OPEN CUT W/ STEEL ENCASEMENT (10 INCH)	445.00	LF		\$	
0990	23105ND		FIRE HYDRANT BLOW-OFF (3 INCH NOZZLE)	1.00	EACH		\$	
1000	24149EC		BORE AND JACK PIPE-10 IN (STEEL CASING PIPE, ROAD BORE)	220.00	LF		\$	
1010	24481ED		PVC CASING PIPE (2 INCH, ROAD BORE)	530.00	LF		\$	
1020	24481ED		PVC CASING PIPE (2 INCH, OPEN CUT)	359.00	LF		\$	
1030	24632EC		WATER MAIN (6 INCH WATER LINE, C-900, DR14)	8,886.00	LF		\$	

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PROPOSAL BID ITEMS

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Section: 0009 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	FP	AMOUNT
1040	02568		MOBILIZATION	1.00	LS		\$	
1050	02569		DEMOBILIZATION	1.00	LS		\$	