



**CALL NO. 100**

**CONTRACT ID. 181035**

**HENRY COUNTY**

**FED/STATE PROJECT NUMBER NHPP IM 0711 (122)**

**DESCRIPTION I-71**

**WORK TYPE ASPHALT PAVEMENT & ROADWAY REHAB**

**PRIMARY COMPLETION DATE 8/15/2019**

**LETTING DATE: September 21,2018**

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME September 21,2018. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

**NO PLANS ASSOCIATED WITH THIS PROJECT.**

**DBE CERTIFICATION REQUIRED - 10%**

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

## TABLE OF CONTENTS

PART I	SCOPE OF WORK
	<ul style="list-style-type: none"><li>• PROJECT(S), COMPLETION DATE(S), &amp; LIQUIDATED DAMAGES</li><li>• CONTRACT NOTES</li><li>• FEDERAL CONTRACT NOTES</li><li>• ASPHALT MIXTURE</li><li>• DGA BASE</li><li>• DGA BASE FOR SHOULDERS</li><li>• INCIDENTAL SURFACING</li><li>• FUEL AND ASPHALT PAY ADJUSTMENT</li><li>• SPECIAL NOTE(S) APPLICABLE TO PROJECT</li><li>• RIGHT OF WAY NOTES</li><li>• UTILITY IMPACT &amp; RAIL CERTIFICATION NOTES</li></ul>
PART II	SPECIFICATIONS AND STANDARD DRAWINGS
	<ul style="list-style-type: none"><li>• SPECIFICATIONS REFERENCE</li><li>• SUPPLEMENTAL SPECIFICATION</li></ul>
PART III	EMPLOYMENT, WAGE AND RECORD REQUIREMENTS
	<ul style="list-style-type: none"><li>• FEDERAL-AID CONSTRUCTION CONTRACTS - FHWA 1273</li><li>• NONDISCRIMINATION OF EMPLOYEES</li><li>• EXECUTIVE BRANCH CODE OF ETHICS</li><li>• PROJECT WAGE RATES LOCALITY 3 / FEDERAL</li><li>• NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EEO HENRY</li></ul>
PART IV	INSURANCE
PART V	BID ITEMS

**PART I**  
**SCOPE OF WORK**

## ADMINISTRATIVE DISTRICT - 05

**CONTRACT ID - 181035**

**NHPP IM 0711 (122)**

**COUNTY - HENRY**

**PCN - DE05200711835**

**NHPP IM 0711 (122)**

I-71 ASPHALT PAVEMENT REHABILITATION ON I-71 EASTBOUND AND WESTBOUND FROM MP 24.679 TO MP 28.112 IN HENRY COUNTY, A DISTANCE OF 03.40 MILES.ASPHALT PAVEMENT & ROADWAY REHAB SYP NO. 05-20002.00.

GEOGRAPHIC COORDINATES LATITUDE 38:26:29.00 LONGITUDE 85:18:32.00

**COMPLETION DATE(S):**

COMPLETED BY 08/15/2019

APPLIES TO ENTIRE CONTRACT

## **CONTRACT NOTES**

### **PROPOSAL ADDENDA**

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

### **BID SUBMITTAL**

Bidder must use the Department's electronic bidding software. The Bidder must download the bid file located on the Bid Express website ([www.bidx.com](http://www.bidx.com)) to prepare a bid packet for submission to the Department. The bidder must submit electronically using Bid Express.

### **JOINT VENTURE BIDDING**

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

### **UNDERGROUND FACILITY DAMAGE PROTECTION**

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. When prescribed in said directives, the contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom shall be contacted through their individual Protection Notification Center. Non-compliance with these directives can result in the enforcement of penalties.

### **REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY**

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

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

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

### **SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT**

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

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

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

### **HARDWOOD REMOVAL RESTRICTIONS**

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

### **INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES**

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

### **ACCESS TO RECORDS**

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

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

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

April 30, 2018

### **FEDERAL CONTRACT NOTES**

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

102.02 Current Capacity Rating 102.10 Delivery of Proposals  
102.8 Irregular Proposals 102.14 Disqualification of Bidders  
102.9 Proposal Guaranty

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

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

### **NOTICE TO ALL BIDDERS**

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

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

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

### **SECOND TIER SUBCONTRACTS**

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



### **DISADVANTAGED BUSINESS ENTERPRISE PROGRAM**

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

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

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

### **DBE GOAL**

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

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

### **OBLIGATION OF CONTRACTORS**

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

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

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

### **CERTIFICATION OF CONTRACT GOAL**

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

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

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

### **DBE PARTICIPATION PLAN**

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

The DBE Participation Plan shall include the following:

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

- b) The dollar value of services provided by DBEs such as quality control testing, equipment repair and maintenance, engineering, staking, etc.;
  - c) The dollar value of joint ventures. DBE credit for joint ventures will be limited to the dollar amount of the work actually performed by the DBE in the joint venture;
- 4 Written and signed documentation of the bidder's commitment to use a DBE contractor whose participation is being utilized to meet the DBE goal; and
- 5 Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment.

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

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

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

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

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

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

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

- 1 Whether the bidder attended any pre-bid meetings that were scheduled by the Cabinet to inform DBEs of subcontracting opportunities;
- 2 Whether the bidder provided solicitations through all reasonable and available means;
- 3 Whether the bidder provided written notice to all DBEs listed in the DBE directory at the time of the letting who are prequalified in the areas of work that the bidder will be subcontracting;
- 4 Whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with certainty whether they were interested. If a reasonable amount of DBEs within the targeted districts do not provide an intent to quote or no DBEs are prequalified in the subcontracted areas, the bidder must notify the DBE Liaison in the Office of Minority Affairs to give notification of the bidder's inability to get DBE quotes;
- 5 Whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise perform these work items with its own forces;
- 6 Whether the bidder provided interested DBEs with adequate and timely information about the plans, specifications, and requirements of the contract;
- 7 Whether the bidder negotiated in good faith with interested DBEs not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached;
- 8 Whether quotations were received from interested DBE firms but were rejected as unacceptable without sound reasons why the quotations were considered unacceptable. The fact that the DBE firm's quotation for the work is not the lowest quotation received will not in itself be considered as a sound reason for rejecting the quotation as unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a DBE quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy DBE goals;
- 9 Whether the bidder specifically negotiated with subcontractors to assume part of the responsibility to meet the contract DBE goal when the work to be subcontracted includes potential DBE participation;
- 10 Whether the bidder made any efforts and/or offered assistance to interested DBEs in obtaining the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal; and
- 11 Any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include DBE participation.

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

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

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

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

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

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

Failure by the prime contractor to fulfill the DBE requirements of a project under contract or to demonstrate good faith efforts to meet the goal constitutes a breach of contract. When this occurs, the Cabinet will hold the prime contractor accountable, as would be the case with all other contract provisions. Therefore, the contractor's failure to carry out the DBE contract requirements shall constitute a breach of contract and as such the Cabinet reserves the right to exercise all administrative remedies at its disposal including, but not limited to the following:

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

### **PROMPT PAYMENT**

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

### **CONTRACTOR REPORTING**

All contractors must keep detailed records and provide reports to the Cabinet on their progress in meeting the DBE requirement on any highway contract. These records may include, but shall not be limited to payroll, lease agreements, cancelled payroll checks, executed subcontracting agreements, etc. Prime contractors will be required to complete and submit a signed and notarized affidavit (TC 18-7) and copies of checks for any monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal. **These documents must be submitted within 10 days of being paid by the Cabinet.**

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

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

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

**The prime contractor should notify the KYTC Office of Civil Rights and Small Business Development seven (7) days prior to DBE contractors commencing work on the project. The contact is Melvin Bynes and the telephone number is (502) 564-3601.**

Photocopied payments and completed, signed and notarized affidavit must be submitted by the Prime Contractor to: Office of Civil Rights and Small Business Development  
6<sup>th</sup> Floor West 200 Mero Street  
Frankfort, KY 40622

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

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

1/27/2017

**LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – CARGO PREFERENCE ACT (CPA).**

**(REV 12-17-15) (1-16)**

SECTION 7 is expanded by the following new Article:

102.10 **Cargo Preference Act – Use of United States-flag vessels.**

Pursuant to Title 46CFR Part 381, the Contractor agrees

- To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

- To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph 1 of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

- To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

### **ASPHALT MIXTURE**

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

### **DGA BASE**

Unless otherwise noted, the Department estimates the rate of application for DGA Base to be 115 lbs/sy per inch of depth.

### **DGA BASE FOR SHOULDERS**

Unless otherwise noted, the Department estimates the rate of application for DGA Base for Shoulders to be 115 lbs/sy per inch of depth. The Department will not measure necessary grading and/or shaping of existing shoulders prior to placing of DGA Base, but shall be incidental to the Contract unit price per ton for DGA Base.

Accept payment at the Contract unit price per ton as full compensation for all labor, materials, equipment, and incidentals for grading and/or shaping of existing shoulders and furnishing, placing, and compacting the DGA Base.

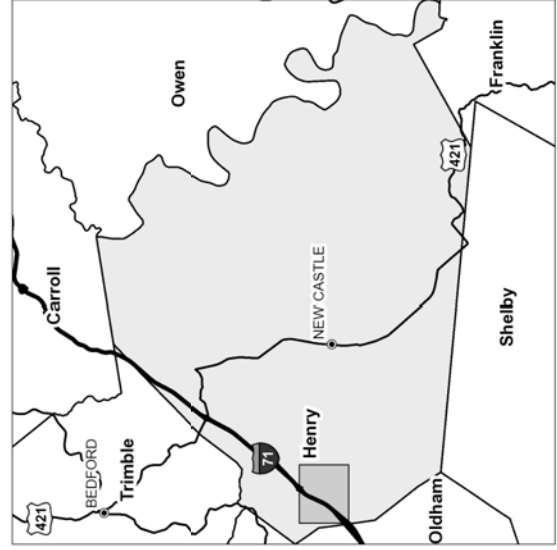
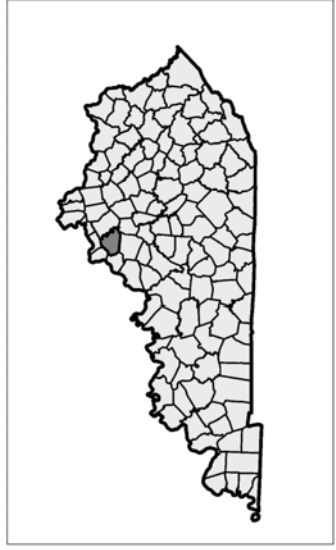
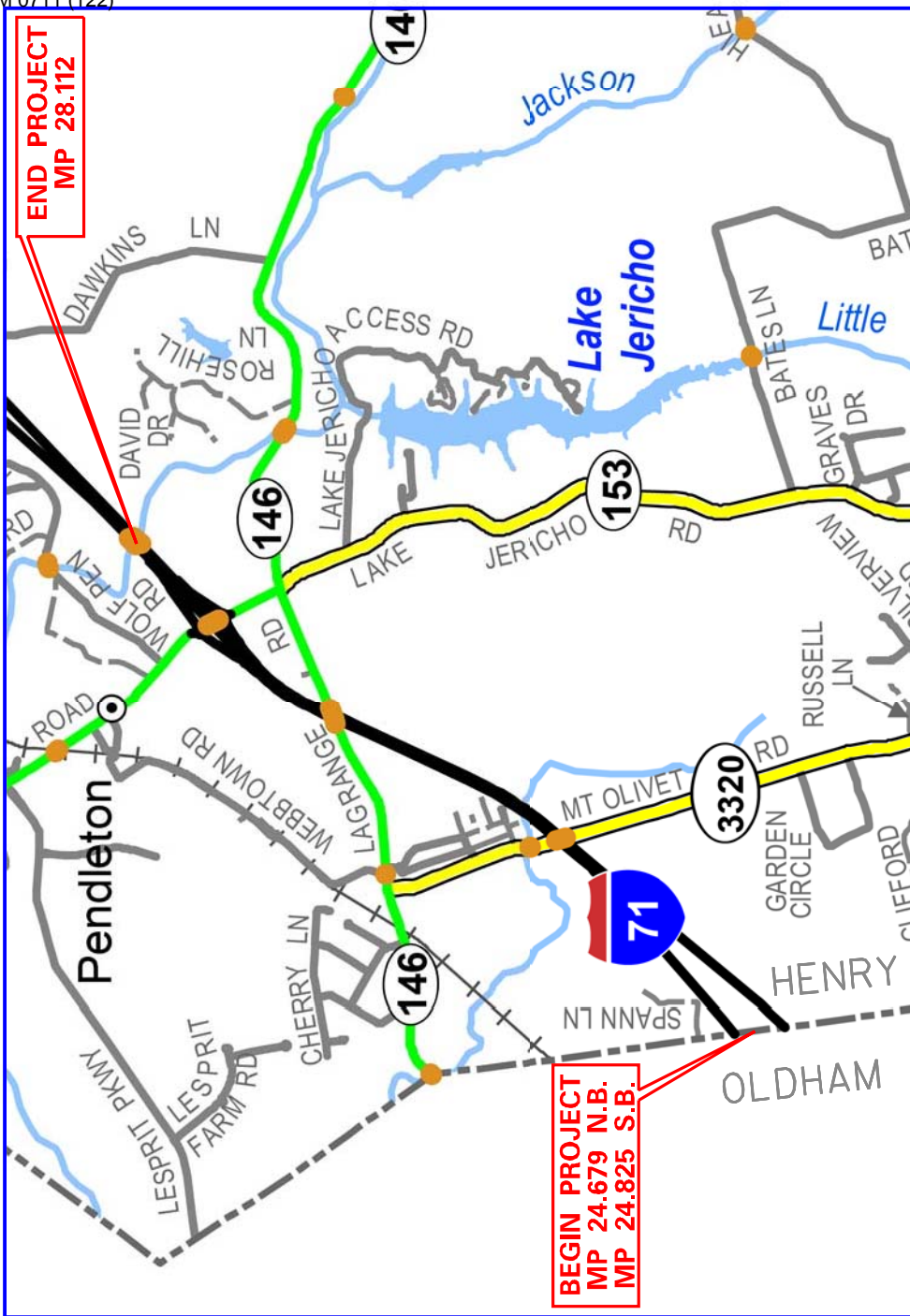
### **INCIDENTAL SURFACING**

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

### **FUEL AND ASPHALT PAY ADJUSTMENT**

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





**PROJECT NUMBER:** NHPP IM 0711 (122), FD52 052 0071 024-029

**ITEM NUMBER:** 5-20002

**LETTING DATE:** SEPTEMBER 21, 2018

**RECOMMENDED BY:** ANDRE JOHANNES, P.E. DATE: \_\_\_\_\_  
Project Manager

**PLAN APPROVED BY:** \_\_\_\_\_ DATE: \_\_\_\_\_  
State Highway Engineer

**FHWA APPROVED BY:** \_\_\_\_\_ DATE: \_\_\_\_\_

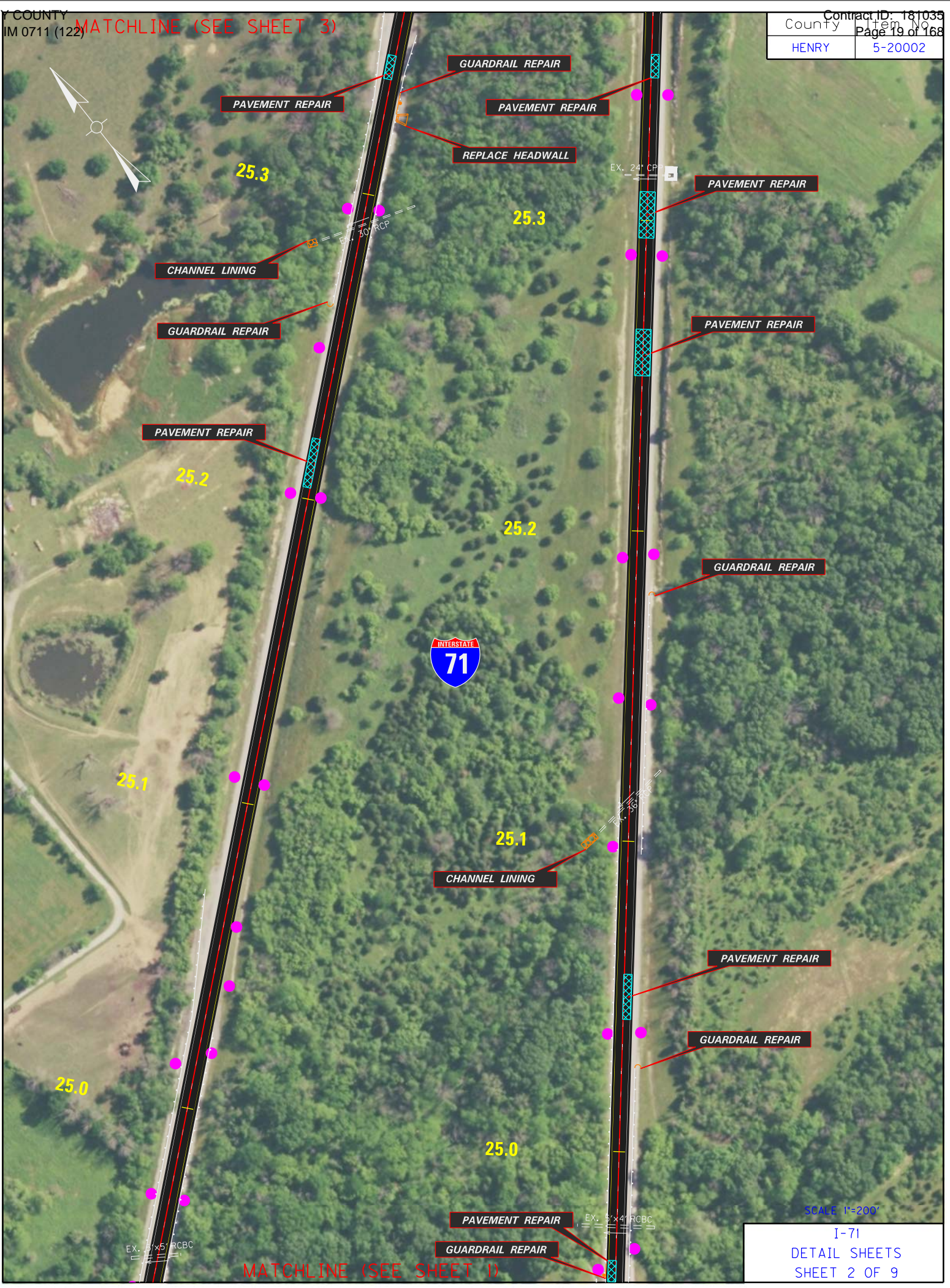


**LEGEND**

- PERFORATED PIPE HEADWALL
- [Blue hatched box] PAVEMENT REPAIR
- [Orange dashed line] REMOVE & REPLACE GUARDRAIL
- [Yellow dashed line] REMOVE PAVED DITCH
- [Orange trapezoid] REMOVE & REPLACE HDWL / PIPE REPAIR
- [Green hatched box] CHANNEL LINING
- [Green cross-hatched box] ASPHALT SEAL COAT
- [Pink rectangle] SHOULDER EROSION REPAIR
- [Blue rectangle] CONCRETE WEDGE CURB
- [Orange trapezoid] FLUME INLET
- [Pink hatched box] PAVEMENT ELEV. REVISION (CLEARANCE)

SCALE 1"=200'

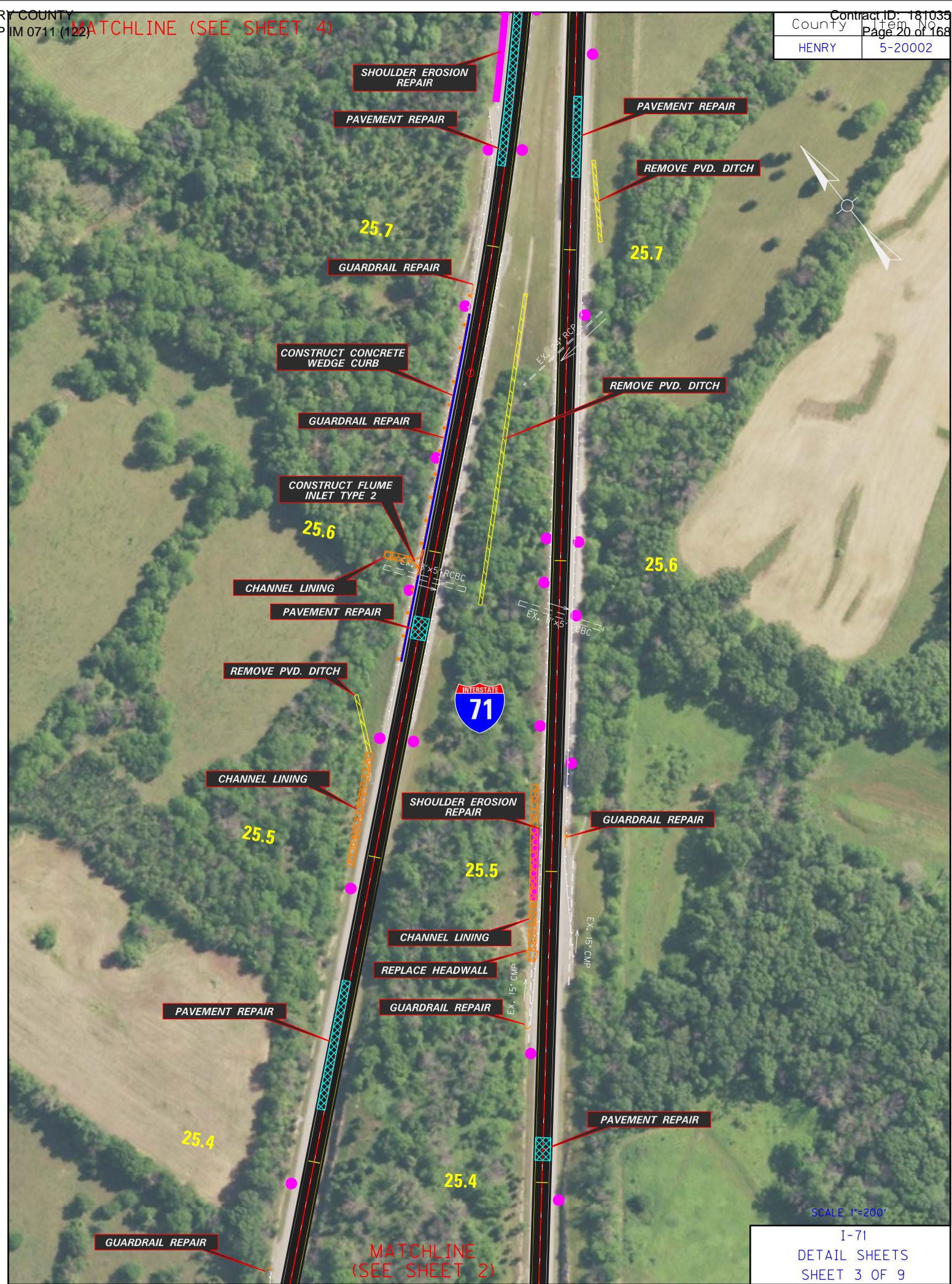
I-71  
DETAIL SHEETS  
SHEET 1 OF 9



SCALE 1"=200'

I-71  
DETAIL SHEETS  
SHEET 2 OF 9

MATCHLINE (SEE SHEET 1)



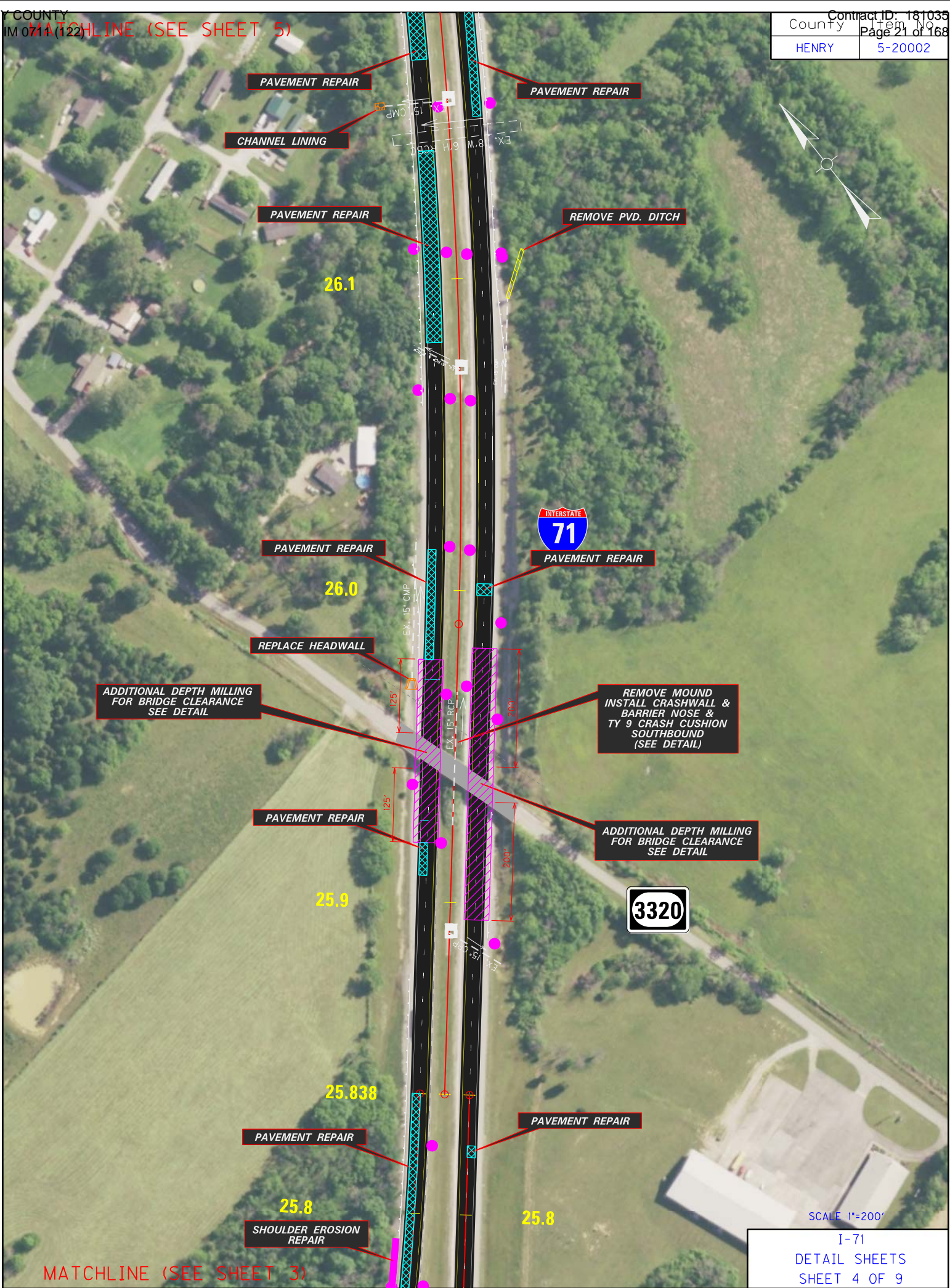
SCALE 1"=200'

I-71  
 DETAIL SHEETS  
 SHEET 3 OF 9

MATCHLINE (SEE SHEET 2)

County	Item No.
HENRY	5-20002

MATCHLINE (SEE SHEET 5)



MATCHLINE (SEE SHEET 3)

SCALE 1"=200'  
I-71  
DETAIL SHEETS  
SHEET 4 OF 9

County	HENRY
Item No.	5-20002

MATCHLINE (SEE SHEET 6)

26.6

PAVEMENT REPAIR

PAVEMENT REPAIR

PAVEMENT REPAIR

26.5

PAVEMENT REPAIR

PAVEMENT REPAIR

26.4

PAVEMENT REPAIR

26.3

GUARDRAIL REPAIR

PAVEMENT REPAIR

26.2

PAVEMENT REPAIR

MATCHLINE (SEE SHEET 4)



SCALE 1"=200'

I-71  
DETAIL SHEETS  
SHEET 5 OF 9

County	HENRY
Item No.	5-20002

MATCHLINE (SEE SHEET 7)

REPLACE HEADWALL

PAVEMENT REPAIR

27.0

PAVEMENT REPAIR



PAVEMENT REPAIR

26.9

STEEL POST FOR  
MILE MARKER, MM 27

GUARDRAIL REPAIR

GUARDRAIL REPAIR



REPLACE HEADWALL

GUARDRAIL REPAIR

26.8

PAVEMENT REPAIR

26.7

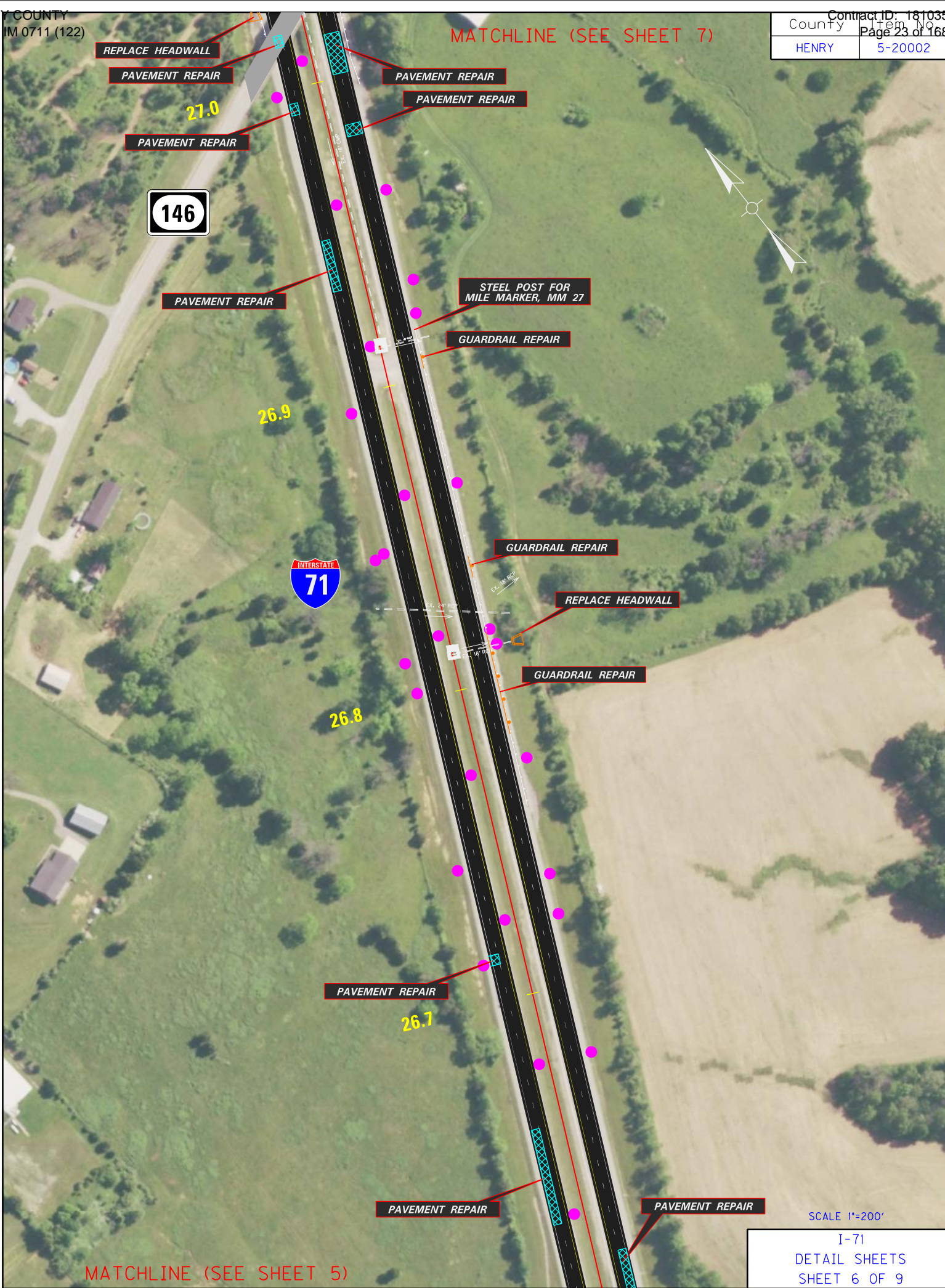
PAVEMENT REPAIR

PAVEMENT REPAIR

MATCHLINE (SEE SHEET 5)

SCALE 1"=200'

I-71  
DETAIL SHEETS  
SHEET 6 OF 9



County	HENRY
Item No	5-20002



**GUARDRAIL REPAIR**  
**REPLACE HEADWALL**  
**CHANNEL LINING**  
**27.4**  
**SHOULDER EROSION REPAIR**

**MATCHLINE (SEE SHEET 8)**  
**PAVEMENT REPAIR**  
**FILL AND GRADE MEDIAN**

**27.3**  
**CHANNEL LINING**  
**PAVEMENT REPAIR**

**PAVEMENT REPAIR**

**27.2**

**GUARDRAIL REPAIR**

**PAVEMENT REPAIR**

**GUARDRAIL REPAIR**

**REPLACE HEADWALL**

**PAVEMENT REPAIR**

**27.1**

**PAVEMENT REPAIR**

**REMOVE MOUND  
 INSTALL CRASHWALL &  
 BARRIER NOSE &  
 TY 9 CRASH CUSHION  
 SOUTHBOUND  
 (SEE DETAIL)**

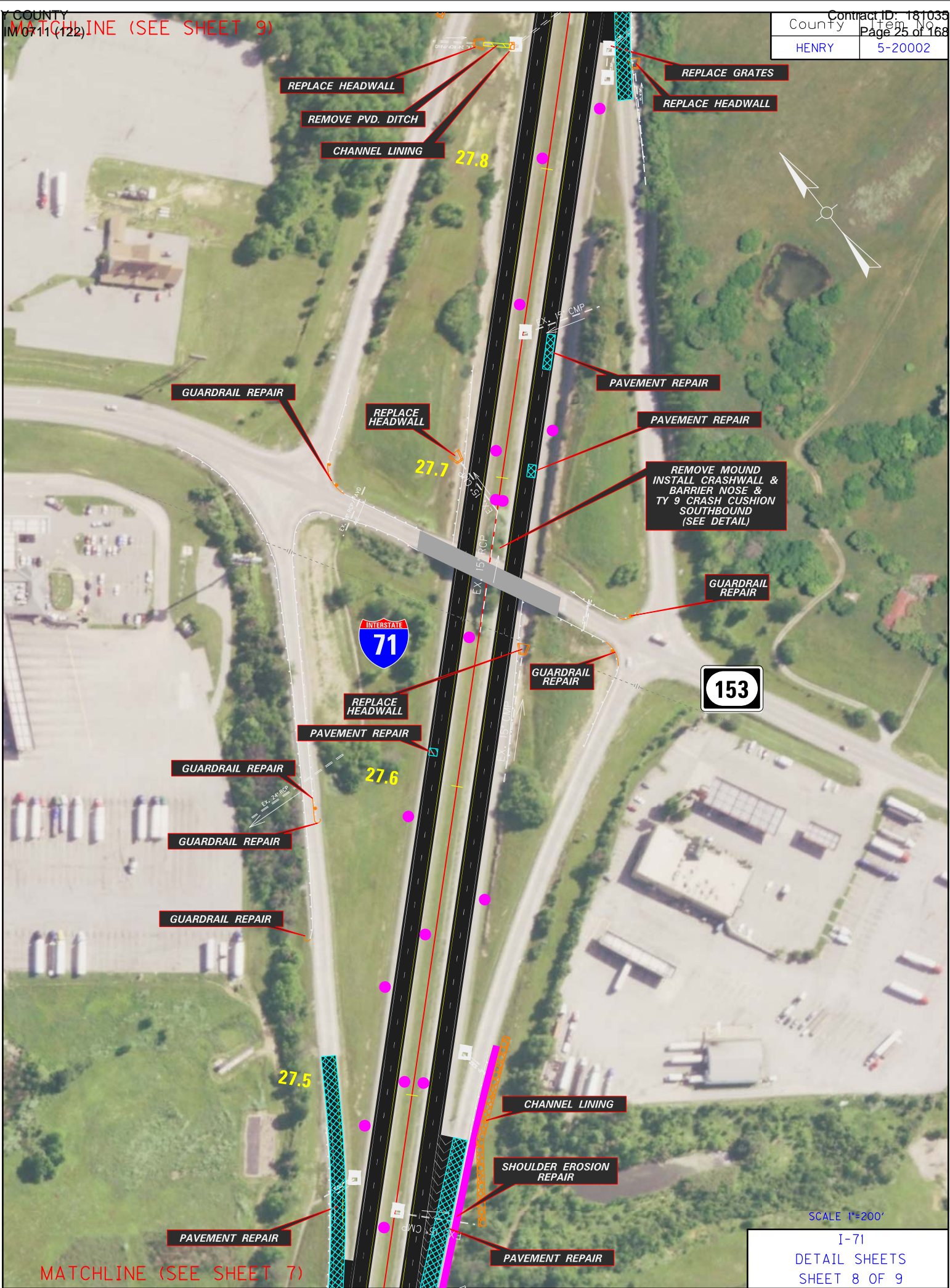
**GUARDRAIL REPAIR**

**MATCHLINE (SEE SHEET 6)**

SCALE 1"=200'

**I-71  
 DETAIL SHEETS  
 SHEET 7 OF 9**

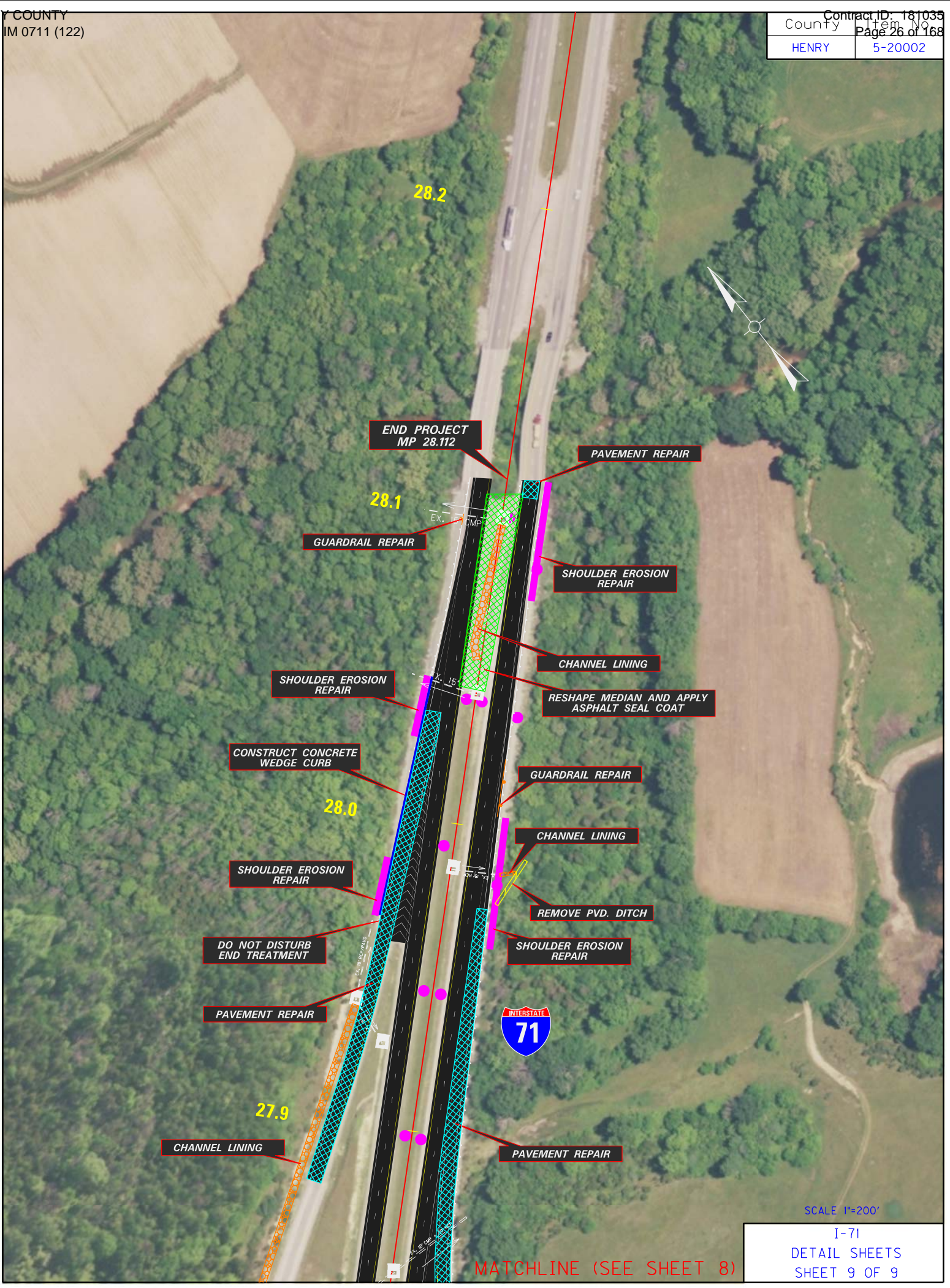




MATCHLINE (SEE SHEET 7)

SCALE 1"=200'

I-71  
DETAIL SHEETS  
SHEET 8 OF 9



END PROJECT  
MP 28.112

PAVEMENT REPAIR

28.1

GUARDRAIL REPAIR

SHOULDER EROSION REPAIR

CHANNEL LINING

RESHAPE MEDIAN AND APPLY ASPHALT SEAL COAT

SHOULDER EROSION REPAIR

CONSTRUCT CONCRETE WEDGE CURB

GUARDRAIL REPAIR

28.0

CHANNEL LINING

SHOULDER EROSION REPAIR

REMOVE PVD. DITCH

DO NOT DISTURB END TREATMENT

SHOULDER EROSION REPAIR

PAVEMENT REPAIR



27.9

CHANNEL LINING

PAVEMENT REPAIR

SCALE 1"=200'

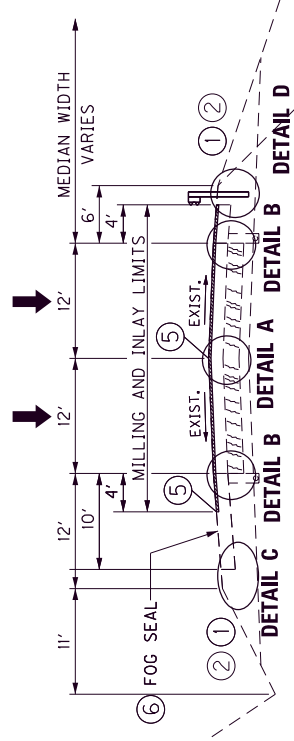
I-71  
DETAIL SHEETS  
SHEET 9 OF 9

MATCHLINE (SEE SHEET 8)

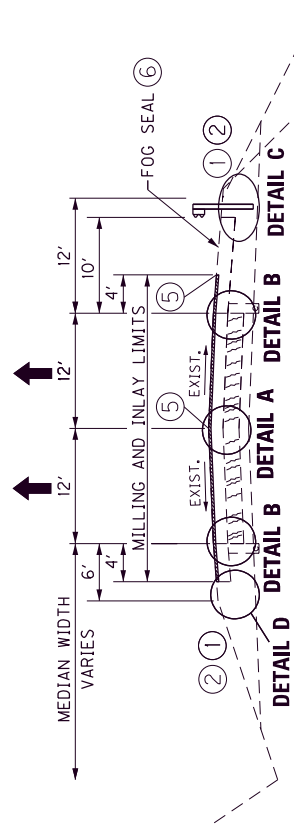
# PROPOSED TYPICAL SECTIONS I-71

County	Item No.	Sheet
HENRY	5-20002	

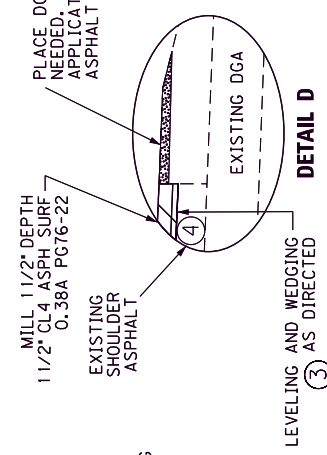
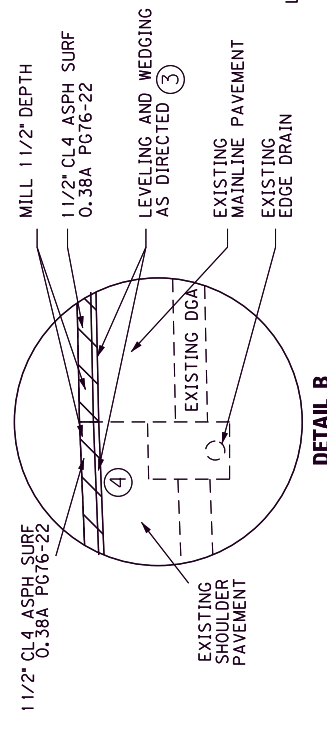
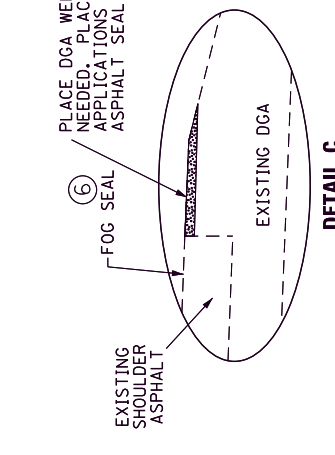
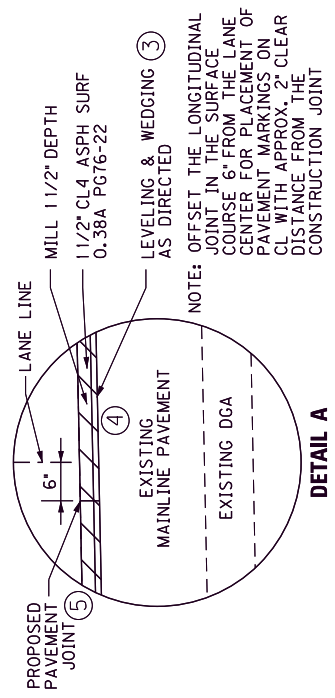
M.P. 24.679 - M.P. 25.838 NORTHBOUND  
M.P. 24.679 - M.P. 25.838 SOUTHBOUND



**MAINLINE SOUTHBOUND NORMAL CROWN BIFURCATED**



**MAINLINE NORTHBOUND NORMAL CROWN BIFURCATED**



## SURFACING SCHEDULE

**MAINLINE TRAFFIC LANES AND SHOULDERS**  
ASPHALT PAVEMENT MILLING AND TEXTURING.....1 1/2" DEPTH  
LEVELLING AND WEDGING PG76-22.....AS DIRECTED  
CL4 ASPH SURFACE 0.38A PG76-22.....1 1/2" DEPTH

- ① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable). TWO APPLICATIONS OF THE FOLLOWING :  
ASPHALT SEAL COAT ..... 2.4 lbs. / S.Y.  
ASPHALT SEAL AGGREGATE ..... 20 lbs. / S.Y.
- ② SHOULDER WIDENED 2' WHERE GUARDRAIL IS PRESENT
- ③ TO BE USED AS DIRECTED BY THE ENGINEER FOR PAVEMENT IRREGULARITIES.
- ④ APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.84 LBS/SY BETWEEN EACH LAYER OF ASPH. CONCRETE. JOINT ADHESIVE
- ⑥ TREAT REMAINING SHOULDER NOT RESURFACED WITH 0.12-0.15 GAL/SY OF ASPHALT EMULSION FOR FOG SEAL.

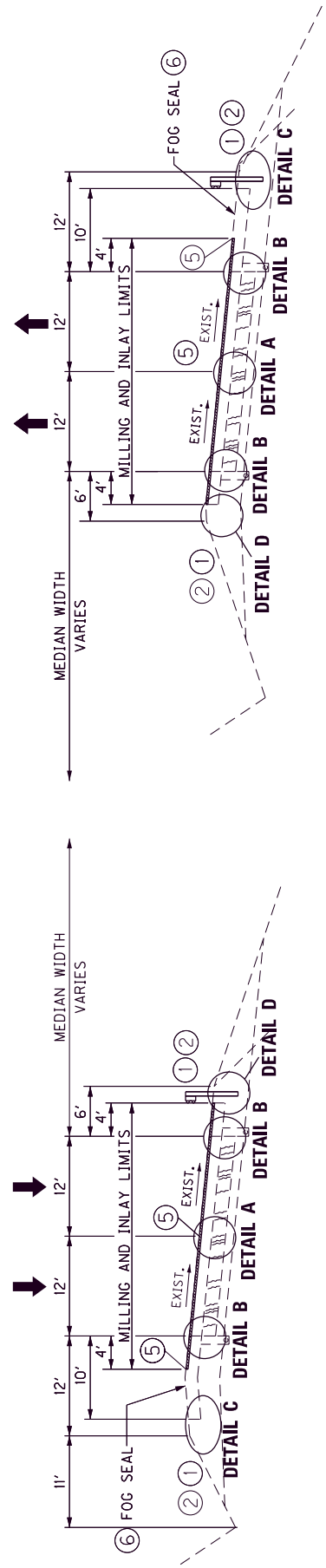
I-71  
TYPICAL SECTIONS

NOT TO SCALE

# PROPOSED TYPICAL SECTIONS I-71

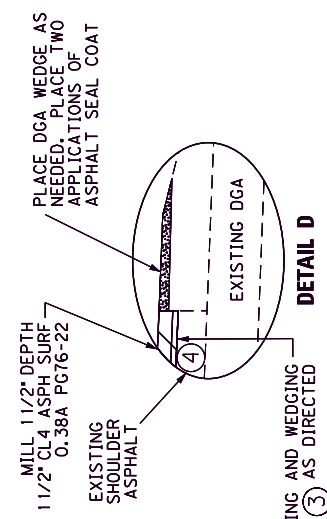
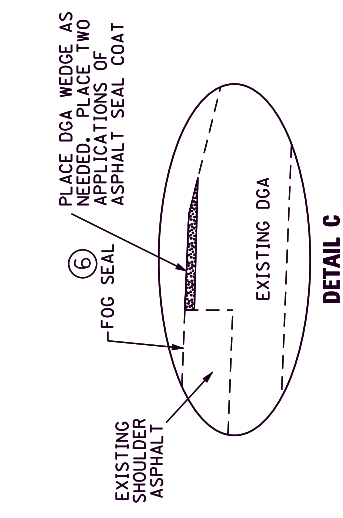
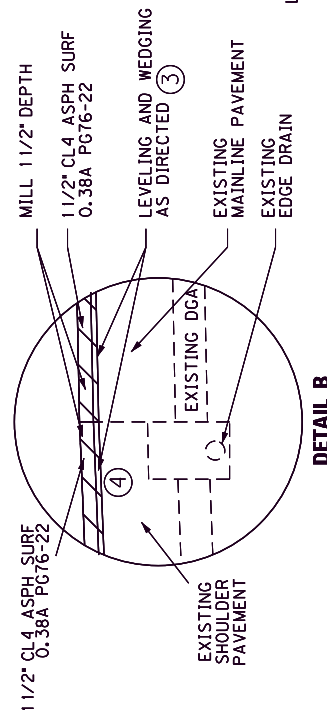
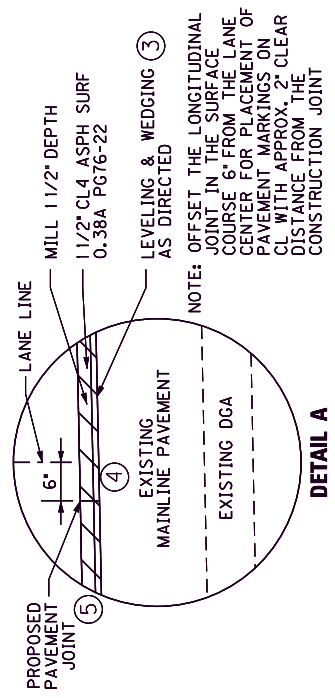
County	Item No.	Sheet
HENRY	5-20002	

M.P. 24.679 - M.P. 25.838 NORTHBOUND  
 M.P. 24.679 - M.P. 25.838 SOUTHBOUND



**MAINLINE NORTHBOUND SUPERELEVATED BIFURCATED**

**MAINLINE SOUTHBOUND SUPERELEVATED BIFURCATED**



## SURFACING SCHEDULE

- MAINLINE TRAFFIC LANES AND SHOULDERS**
- ① ASPHALT PAVEMENT MILLING AND TEXTURING.....1 1/2" DEPTH
  - ② LEVELING AND WEDGING PG76-22.....AS DIRECTED
  - ③ CL4 ASPH SURFACE 0.38A PG76-22.....1 1/2" DEPTH

- ④ ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable), TWO APPLICATIONS OF THE FOLLOWING :  
 ASPHALT SEAL COAT ..... 2.4 lbs. / S.Y.  
 ASPHALT SEAL AGGREGATE ..... 20 lbs. / S.Y.
- ⑤ SHOULDER WIDENED 2' WHERE GUARDRAIL IS PRESENT
- ⑥ TO BE USED AS DIRECTED BY THE ENGINEER FOR PAVEMENT IRREGULARITIES.  
 APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.84 LBS/SY BETWEEN EACH LAYER OF ASPH. CONCRETE. JOINT ADHESIVE
- ⑦ TREAT REMAINING SHOULDER NOT RESURFACED WITH 0.12-0.15 GAL/SY OF ASPHALT EMULSION FOR FOG SEAL.

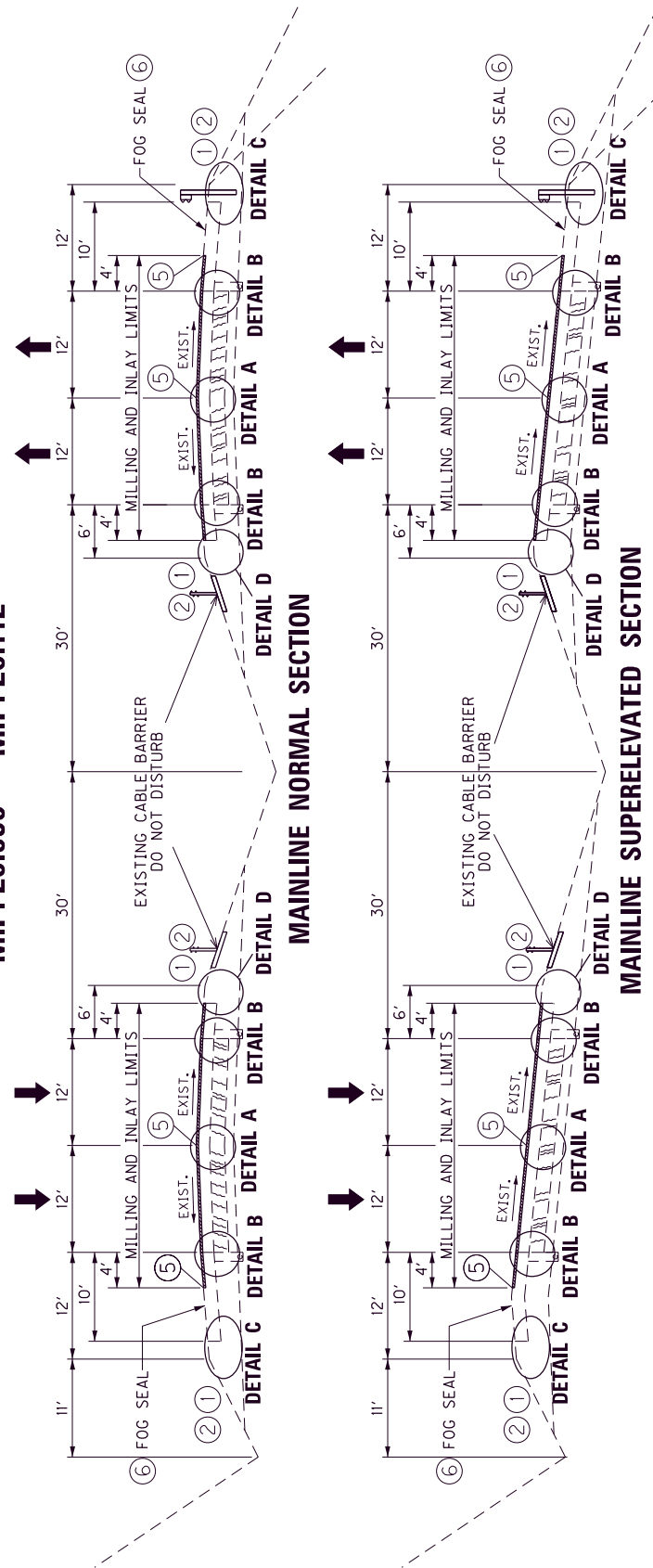
I-71  
 TYPICAL SECTIONS

NOT TO SCALE

# PROPOSED TYPICAL SECTIONS

I-71  
 M.P. 25.838 - M.P. 28.112

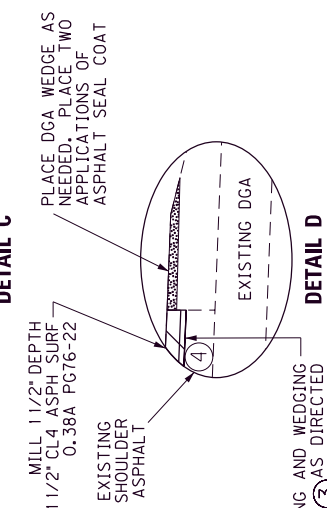
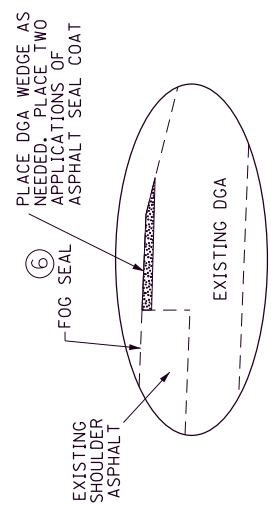
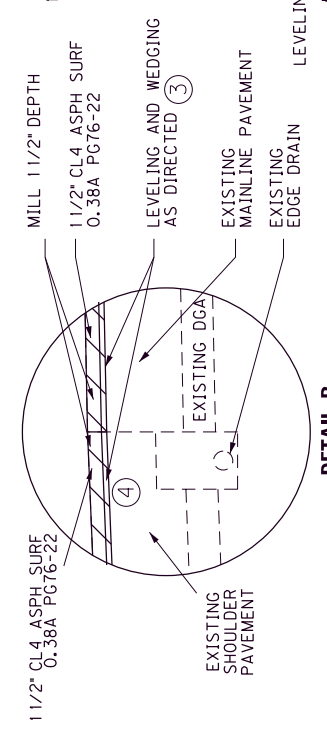
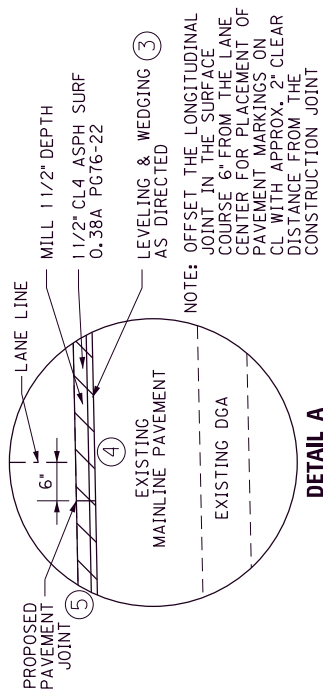
County	Item No.	Sheet
HENRY	5-20002	



## SURFACING SCHEDULE

### MAINLINE TRAFFIC LANES AND SHOULDERS

- ① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable), TWO APPLICATIONS OF THE FOLLOWING :  
 ASPHALT SEAL COAT ..... 2.4 lbs. / S.Y.  
 ASPHALT SEAL AGGREGATE ..... 20 lbs. / S.Y.
- ② SHOULDER WIDENED 2' WHERE GUARDRAIL IS PRESENT TO BE USED AS DIRECTED BY THE ENGINEER FOR PAVEMENT IRREGULARITIES.
- ③ APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.84 LBS/SY BETWEEN EACH LAYER OF ASPH. CONCRETE. JOINT ADHESIVE
- ④ TREAT REMAINING SHOULDER NOT RESURFACED WITH 0.12-0.15 GAL/SY OF ASPHALT EMULSION FOR FOG SEAL.

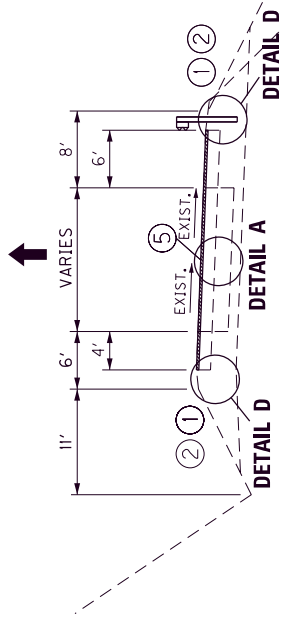


NOT TO SCALE  
 I-71  
 TYPICAL SECTIONS

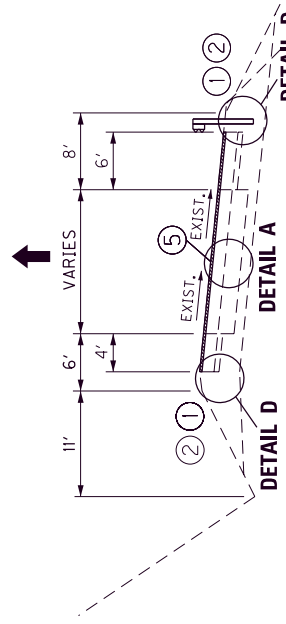
# PROPOSED TYPICAL SECTIONS

## I-71 EXIT RAMP

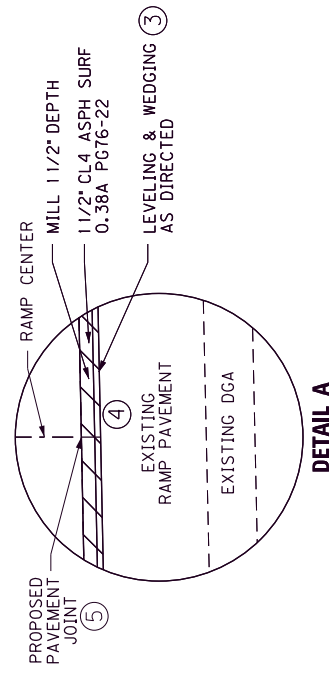
County	Item No.	Sheet
HENRY	5-20002	



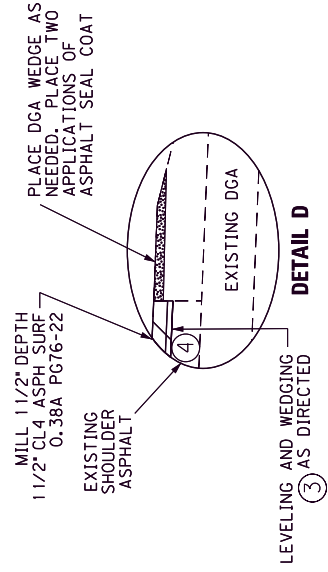
**EXIT RAMP NORMAL SECTION**



**EXIT RAMP SUPERELEVATED**



**DETAIL A**



**DETAIL D**

**SURFACING SCHEDULE**

**EXIT RAMP LANE AND SHOULDERS**

- ASPHALT PAVEMENT MILLING AND TEXTURING.....1 1/2" DEPTH
- LEVELING AND WEDGING PG76-22.....AS DIRECTED
- CL4 ASPH SURFACE 0.38A PG76-22.....1 1/2" DEPTH

- ① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable). TWO APPLICATIONS OF THE FOLLOWING:  
ASPHALT SEAL COAT ..... 2.4 lbs. / S.Y.  
ASPHALT SEAL AGGREGATE ..... 20 lbs. / S.Y.
- ② SHOULDER WIDENED 2' WHERE GUARDRAIL IS PRESENT
- ③ TO BE USED AS DIRECTED BY THE ENGINEER FOR PAVEMENT IRREGULARITIES.
- ④ APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.84 LBS/SY BETWEEN EACH LAYER OF ASPH. CONCRETE.
- ⑤ JOINT ADHESIVE

NOT TO SCALE

I-71  
TYPICAL SECTIONS

**I-71**  
**HENRY COUNTY**  
**ITEM NO. 5-2002, PAVEMENT REHABILITATION**  
**MILEPOST 24.679 NB, 24.875 SB TO MILEPOST 28.112 NB & SB**  
**GENERAL SUMMARY**

ITEM NUMBER	ITEM	UNIT	QUANTITY
1	DGA BASE ①	TON	3,362
78	CRUSHED AGGREGATE SIZE NO. 2 ④	TON	1,674
100	ASPHALT SEAL AGGREGATE ①	TON	352
103	ASPHALT SEAL COAT ①	TON	42
194	LEVELING & WEDGING PG76-22 ①	TON	590
219	CL4 ASPH BASE 1.00D PG76-22 ①	TON	9,420
342	CL4 ASPH SURF 0.38A PG76-22 ①	TON	11,199
2677	ASPHALT PAVE MILLING & TEXTURING ①	TON	19,604
24878EC	ASPHALT EMULSION FOR FOG SEAL ①	TON	14
2696	SHOULDER RUMBLE STRIPS - SAWED	LIN FT	75,373
356	ASPHALT MATERIAL FOR TACK ①	TON	79
23071EN	OVERBAND CRACK SEALING ⑤	LBS	425
2007IEC	JOINT ADHESIVE ①	LIN FT	73,171
24785EC	FIBER REINFORCEMENT FOR HMA ①	TON	528
1005	PERFORATED PIPE EDGE DRAIN-4 IN	LIN FT	13,000
1010	NON-PERFORATED PIPE-4 IN	LIN FT	400
1015	INSPECT & CERTIFY EDGE DRAIN SYSTEM	LP SUM	1
1020	PERF PIPE HEADWALL TY 1-4 IN	EACH	8
1024	PERF PIPE HEADWALL TY 2-4 IN	EACH	8
1028	PERF PIPE HEADWALL TY 3-4 IN	EACH	8
1740	CORED HOLE DRAINAGE BOX CON-4 IN	EACH	2
20758ED	REMOVE AND RESET PERF PIPE HEADWALL	EACH	5
1982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE ②	EACH	43
2360	GUARDRAIL TERMINAL SECTION NO 1 ②	EACH	6
2369	GUARDRAIL END TREATMENT TYPE 2A ②	EACH	1
2381	REMOVE GUARDRAIL ③②	LIN FT	3,950
2351	G/R STEEL W BEAM - S FACE ③②	LIN FT	3,950
2703	SILT TRAP TYPE A	EACH	2
2704	SILT TRAP TYPE B	EACH	2
2705	SILT TRAP TYPE C	EACH	2
2706	CLEAN SILT TRAP TYPE A	EACH	2
2707	CLEAN SILT TRAP TYPE B	EACH	2
2708	CLEAN SILT TRAP TYPE C	EACH	2
5950	EROSION CONTROL BLANKET	SQ YD	9,680

- ① CARRIED OVER FROM PAVING SUMMARY  
 ② CARRIED OVER FROM GUARDRAIL SUMMARY  
 ③ 1,475' ADDED FOR SHOULDER REPAIR LOCATIONS.  
 ④ INCLUDES 709 TONS FOR SLOPE REPAIRS, 29 TONS FOR PERFORATED PIPE HEADWALLS, & 936 TONS FOR BASE FAILURE REPAIR  
 ⑤ CARRIED OVER FROM BASE REPAIR SUMMARY, TO BE USED AS DIRECTED BY THE ENGINEER.

**I-71**  
**HENRY COUNTY**  
**ITEM NO. 5-2002, PAVEMENT REHABILITATION**  
**MILEPOST 24.679 NB, 24.875 SB TO MILEPOST 28.112 NB & SB**  
**GENERAL SUMMARY**

ITEM NUMBER	ITEM	UNIT	QUANTITY
5952	TEMPORARY MULCH	SQ YD	6,453
5953	TEMP SEEDING AND PROTECTION	SQ YD	4,840
5963	INITIAL FERTILIZER	TON	1
5964	20-10-10 FERTILIZER	TON	0.6
5992	AGRICULTURAL LIMESTONE	TON	6
2701	TEMPORARY SILT FENCE	LIN FT	9,063
2159	TEMP DITCH	LIN FT	9,063
2160	CLEAN TEMP DITCH	LIN FT	4,532
2575	DITCHING AND SHOULDERING	LIN FT	18,126
5989	SPECIAL SEEDING CROWN VETCH	SQ YD	1,162
2014	BARRICADE - TYPE III	EACH	12
2562	TEMPORARY SIGNS	SQ FT	800
2650	MAINTAIN & CONTROL TRAFFIC	LP SUM	1
2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	4
2676	MOBILIZATION FOR MILL & TEXT	LP SUM	1
2775	ARROW PANEL	EACH	2
20411ED	LAW ENFORCEMENT OFFICER	HOUR	300
6401	FLEXIBLE DELINEATOR POST - M/W	EACH	276
6404	FLEXIBLE DELINEATOR POST - M/Y	EACH	44
6511	PAVE STRIPING TEMP PAINT - 6 IN	LIN FT	15,000
6546	PAVE STRIPING - THERMO - 12 IN W	LIN FT	5,615
6547	PAVE STRIPING - THERMO - 12 IN Y	LIN FT	670
23159EN	DURABLE WATERBORNE MARKING - 6 IN W	LIN FT	47,521
23160EN	DURABLE WATERBORNE MARKING - 6 IN Y	LIN FT	38,458
24489EC	INLAID PAVEMENT MARKER	EACH	562
2726	STAKING	LP SUM	1
2478IEC	INTELLIGENT COMPACTION FOR ASPHALT	TON	20,586
2489IEC	PAVE MOUNT INFRARED TEMP EQUIPMENT	SQ FT	851,558
8100	CONCRETE CLASS A	⑥ CU YD	63
8150	STEEL REINFORCEMENT	⑥ LBS	1883
71	CRUSHED AGGREGATE NO. 57	⑥ TON	109
2200	ROADWAY EXCAVATION	⑦ ⑥ CU YD	5,022
2929	CRASH CUSHION TY IX	⑥ EACH	3

⑥ MEDIAN PIER CRASH CUSHION INSTALLATION

⑦ 4300 CU YD INCLUDED FOR MEDIAN PIER EXCAVATION  
& 722 CU YD ADDED FOR BASE FAILURE REPAIRS



**I-71**  
**HENRY COUNTY**  
**ITEM NO. 5-2002, PAVEMENT REHABILITATION**  
**MILEPOST 24.679 NB, 24.875 SB TO MILEPOST 28.112 NB & SB**  
**GENERAL SUMMARY**

ITEM NUMBER	ITEM	UNIT	QUANTITY
2091	REMOVE PAVEMENT (11)	SQ YD	867
2596	FABRIC GEOTEXTILE TYPE I (11)	SQ YD	1820
21451ED	FILL AND GRADE MEDIAN	LIN FT	60
462	CULVERT PIPE - 18 IN (8)	LIN FT	4
464	CULVERT PIPE - 24 IN (8)	LIN FT	4
468	CULVERT PIPE - 36 IN (8)	LIN FT	4
1202	PIPE CULVERT HEADWALL - 15 IN (8)	EACH	1
1204	PIPE CULVERT HEADWALL - 18 IN (8)	EACH	1
1208	PIPE CULVERT HEADWALL - 24 IN (8)	EACH	2
1310	REMOVE PIPE (8)	LIN FT	12
2625	REMOVE HEADWALL (8)	EACH	3
22660EN	REPLACE GRATE (STRUCTURAL STEEL) (8)	LBS	181
1390	METAL END SECTION TYPE 3 - 15 IN (8)	EA	7
1690	FLUME INLET TYPE 1 (8)	EA	1
22883EN	CONCRETE WEDGE CURB (8)	LIN FT	1,016
2165	REMOVE PAVED DITCH (8)	SQ YD	6,060
2484	CHANNEL LINING CLASS III (8)(9)	TON	3,011
2555	CONCRETE-CLASS B (8)(10)	CU YD	12
6412	STEEL POST MILE MARKERS	EACH	1
2568	MOBILIZATION	LP SUM	1
2569	DEMOBILIZATION	LP SUM	1
10020NS	FUEL ADJUSTMENT	DOLLAR	33,013
10030NS	ASPHALT ADJUSTMENT	DOLLAR	82,919

- (8) CARRIED OVER FROM PIPE SUMMARY
- (9) FOR DITCH EROSION REPAIRS, DRAINAGE STRUCTURE INLET/OUTLET REPAIRS, AND FOR PAVED DITCH REMOVAL.
- (10) FOR GROUTED CHANNEL LINING
- (11) FOR BASE FAILURE REPAIRS

**I-71  
HENRY COUNTY  
ITEM NO. 5-2002, PAVEMENT REHABILITATION  
MP 24.679 NB, 24.875 SB TO MP 28.112 NB & SB**

PAVING AREAS		PAVING AREAS	
ITEM	TOTAL	ITEM	TOTAL
<b>MAINLINE (TRAVEL LANES AND SHOULDERS)</b>	<b>S.Y.</b>	<b>SHOULDERS &amp; REGRADE MEDIAN</b>	<b>S.Y.</b>
1 1/2" ASPHALT PAVE MILLING & TEXTURING	125,176	ASPHALT SEAL AGGREGATE	35,158
1 1/2" CLASS 4 ASPH. SURF. 0.38A PG76-22	125,176	ASPHALT SEAL COAT	35,158
		1 1/2" AVG DEPTH DGA BASE (SHOULDER WEDGE)	35,158
<b>EXIT 28 - KY 153 RAMPS AND SHOULDERS</b>	<b>S.Y.</b>	APHALT EMULSION FOR FOG SEAL	22,348
1 1/2" ASPHALT PAVE MILLING & TEXTURING	10,565		
1 1/2" CLASS 4 ASPH. SURF. 0.38A PG76-22	10,565		

**PAVING SUMMARY**

CODE	ITEM	UNITS	PROJECT TOTAL
2677	ASPHALT PAVE MILLING & TEXTURING ⑥	TON	19,604
342	CLASS 4 ASPH. SURF. 0.38A PG76-22	TON	11,199
219	CLASS 4 ASPH. BASE 1.0D PG76-22 ②	TON	9,420
001	DGA BASE ③	TON	3,362
194	LEVELING AND WEDGING PG76-22 ①	TON	590
100	ASPHALT SEAL AGGREGATE ④	TON	352
103	ASPHALT SEAL COAT ④	TON	42
356	ASPHALT MATERIAL FOR TACK ⑦	TON	79
24878EC	ASPHALT EMULSION FOR FOG SEAL ⑤	TON	14
20071EC	JOINT ADHESIVE	LIN FT	73,171
24785EC	FIBER REINFORCEMENT FOR HMA ⑧	TON	528
	* ALL ITEMS CARRIED TO GENERAL SUMMARY		

① TO BE USED FOR PAVEMENT IRREGULARITIES AS DIRECTED BY THE ENGINEER.  
 ② INCLUDES 7,339 TONS FOR PAVEMENT REPAIR, 953 TONS FOR BASE FAILURE REPAIRS, 600 TONS P. PIPE TRENCH CAP, 528 BRIDGE CLEARANCE DETAIL.  
 ③ 88 TONS ADDED FOR SHOULDER REPAIR AREAS, SEE DETAIL. 299 TONS ADDED FOR BASE FAILURE REPAIRS.  
 ④ BASED ON 2 APPLICATION OF: 2.4#/SY ASPHALT SEAL, 20#/SY ASPHALT SEAL AGGREGATE.  
 ⑤ APPLICATION RATE ESTIMATED AT 1.2#/SY  
 ⑥ 7,339 TONS ADDED FOR PAVEMENT REPAIRS, 1,066 FOR BRIDGE CLEARANCE ADJUSTMENT  
 ⑦ ESTIMATED AT 0.84 LBS/SY, 10% ADDED FOR L/W.  
 ⑧ FROM BRIDGE CLEARANCE DETAIL.  
 CALCULATION OF ALL ASPH. MIXES BASED ON 110#/SY PER IN., STONE BASE CALC. ON 115#/SY PER IN. OR 2.07 TONS/CY.  
 NOTE: ALL QUANTITIES HAVE BEEN CARRIED OVER AND INCLUDED IN THE GENERAL SUMMARY.

**I-71  
HENRY COUNTY  
PAVEMENT REHABILITATION, MILEPOST 24.679 NB, 24.825 SB TO 28.112 NB & SB  
ITEM NO. 5-20002  
GUARDRAIL SUMMARY**

POINT NUMBERS	FROM MILEPOST **	TO MILEPOST **	GUARDRAIL-STEEL W BEAM-S FACE	2351	2381	2360	2369	1982	DESCRIPTION
<b>ITEM NO.</b>									
5474, 5475	24.959	24.964	25	25					NB. LT., REMOVE AND REPLACE GR
5486	25.027	25.027			1				NB. RT., REMOVE AND REPLACE TERM. SEC.
5499	25.179	25.179			1				NB. RT., REMOVE AND REPLACE TERM. SEC.
398	25.263	25.263			1				SB. RT., REMOVE AND REPLACE TERM. SEC.
390, 391	25.327	25.334	37.5	37.5					SB. LT., REMOVE AND REPLACE GR
386	25.363	25.363			1				SB. RT., REMOVE AND REPLACE TERM. SEC.
5525	25.450	25.450			1				NB. LT., REMOVE AND REPLACE TERM. SEC.
5543, 5544	25.508	25.515	37.5	37.5					NB. RT., REMOVE AND REPLACE GR
369, 370	25.563	25.677	600	600			6		SB. RT., REMOVE AND REPLACE GR
358, 359	25.682	25.687	25	25					SB. RT., REMOVE AND REPLACE GR
216, 217	26.285	26.290	25	25					SB. RT., REMOVE AND REPLACE GR
5301, 5302	26.783	26.816	175	175			2		NB. RT., REMOVE AND REPLACE GR
5294, 5295	26.834	26.841	37.5	37.5					NB. RT., REMOVE AND REPLACE GR
5290, 5291	26.903	26.908	25	25					NB. RT., REMOVE AND REPLACE GR
162, 163	27.044	27.049	25	25					SB. RT., REMOVE AND REPLACE GR
5258, 5259	27.226	27.231	25	25					NB. RT., REMOVE AND REPLACE GR
5250, 5251	27.295	27.302	37.5	37.5					NB. RT., REMOVE AND REPLACE GR
5242, 5243	27.360	27.365	25	25					NB. RT., REMOVE AND REPLACE GR
127, 128	27.420	27.428	37.5	37.5					SB. RT., REMOVE AND REPLACE GR
448	27.545	27.545			1				SB. RT. (RT. OF RAMP), REMOVE AND REPLACE GR
437, 438	27.583	27.583	37.5	37.5			1		SB. RT. (LT. OF RAMP), REMOVE & REPLACE GR & TERM. SEC.
5392, 5393	27.652	27.652	50	50					NB. RT. (LT. OF RAMP), REMOVE & REPLACE GR
5412, 5413	27.660	27.660	37.5	37.5					NB. RT. (LT. OF RAMP), REMOVE & REPLACE GR
297, 298	27.689	27.689	62.5	62.5			1		SB. RT. (LT. OF RAMP), REMOVE & REPLACE GR
5152, 5154	27.999	28.023	100	100			1		NB. RT., REMOVE & REPLACE GR
21, 22	28.096	28.099	25	25					SB. RT., REMOVE & REPLACE GR
SLOPE REPAIR LOCATIONS									
			1,475	1,475				21	SEE SHOULDER REPAIR DETAIL FOR LOCATIONS
CONC WEDGE CURB LOCATIONS			1,025	1,025				11	SEE CONCRETE WEDGE CURB DETAIL FOR LOCATIONS
SHEET TOTAL									
			3,950	3,950	6	1	1	43	

POINT NUMBER REFERS TO SURVEY SHOT NUMBER, THESE SHOT NUMBERS HAVE BEEN MARKED IN THE FIELD WITH PAINT.  
 \* CARRIED OVER TO GENERAL SUMMARY  
 \*\* FOR LOCATION INFORMATION ONLY  
 ① INCLUDES LENGTH OF END TREATMENT REMOVAL

**I-71  
HENRY COUNTY  
PAVEMENT REHABILITATION  
ITEM NO. 5--20002  
PIPE DRAINAGE SUMMARY**

DIRECTION MILEPOINT OR STATION	CULVERT PIPE				HEADWALLS AND DROP BOX INLETS							MISCELLANEOUS							REMARKS
	① CULVERT PIPE - 18 IN	① CULVERT PIPE - 24 IN	① CULVERT PIPE - 36 IN	① METAL END SECTION TY 3 - 15 IN	PIPE CULVERT HEADWALL - 15 IN	PIPE CULVERT HEADWALL - 18 IN	PIPE CULVERT HEADWALL - 24 IN	FLUME INLET TYPE 1	REMOVE HEADWALL	CONCRETE - CLASS B	CONCRETE WEDGE	CURB	REMOVE PAVED DITCH	REMOVE PIPE	CHANNEL LINING CLASS III	② REPLACE GRATE			
ITEM CODE	462	464	468	1390	1202	1204	1208	1690	2625	2555	22883EN	2165	1310	2484	22660EN				
UNIT TO BID	LINEAR FEET				EACH							C.Y.	L.F.	S.Y.	L.F.	TONS	LBS		
NB MP 24.842															37				
NB MP 25.102															39				
SB MP 25.282															21				
SB MP 25.326				1															
NB MP 25.471				1															
NB MP 25.471															397				
SB MP 25.533															261				
SB MP 25.533															67				
SB MP 25.563											602								
SB MP 25.586															356				
SB MP 25.596															76				
NB MP 25.703								1							93				
SB MP 25.971				1															
NB MP 26.093															58				
<b>SHEET TOTALS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>602</b>	<b>5160</b>	<b>0</b>	<b>1405</b>	<b>0</b>				

① REINFORCED CONCRETE PIPE ONLY  
 ② THE CONTRACTOR SHALL FIELD VERIFY TYPES AND DIMENSIONS  
 PRIOR TO ORDERING PIPE, FRAMES & GRATES.  
 ③ TO BE USED AS DIRECTED BY THE ENGINEER  
 AT INLETS & OUTLETS FOR EROSION PROTECTION.

**I-71  
HENRY COUNTY  
PAVEMENT REHABILITATION  
ITEM NO. 5--20002  
PIPE DRAINAGE SUMMARY**

DIRECTION MILEPOINT OR STATION	CULVERT PIPE				HEADWALLS AND DROP BOX INLETS								MISCELLANEOUS						REMARKS
	① CULVERT PIPE - 18 IN	① CULVERT PIPE - 24 IN	① CULVERT PIPE - 36 IN	① METAL END SECTION TY 3 - 15 IN	PIPE CULVERT HEADWALL - 15 IN	PIPE CULVERT HEADWALL - 18 IN	PIPE CULVERT HEADWALL - 24 IN	FLUME INLET TYPE 1	REMOVE HEADWALL	CONCRETE - CLASS B	CONCRETE WEDGE	CURB	REMOVE PAVED DITCH	REMOVE PIPE	CHANNEL LINING CLASS III	② REPLACE GRATE			
ITEM CODE	462	464	468	1390	1202	1204	1208	1690	2625	2555	22883EN	2165	1310	2484	22660EN				
UNIT TO BID	LINEAR FEET																		
	EACH																		
SB MP 26.157																			
NB MP 26.811	4					1			1				4						
SB MP 27.027				1															
NB MP 27.214				1															
SB MP 27.262																			
SB MP 27.411			4				1		1	7			4		25	HDWL 30 DEG SKEW			
NB MP (RAMP)															44				
NB MP 27.645				1											435				
SB MP 27.703					1														
NB MP 27.836				1															
SB MP 27.837																			
NB MP 27.841		4					1		1			360	4		51				
SB MP 27.843																			
SB MP 27.967															181	SIMILAR TO DBI TYPE 6A			
<b>SHEET TOTALS</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>12</b>	<b>414</b>	<b>360</b>	<b>12</b>	<b>1251</b>	<b>181</b>				

① REINFORCED CONCRETE PIPE ONLY  
 ② THE CONTRACTOR SHALL FIELD VERIFY TYPES AND DIMENSIONS  
 PRIOR TO ORDERING PIPE, FRAMES & GRATES.  
 ③ TO BE USED AS DIRECTED BY THE ENGINEER  
 AT INLETS & OUTLETS FOR EROSION PROTECTION.

I-71

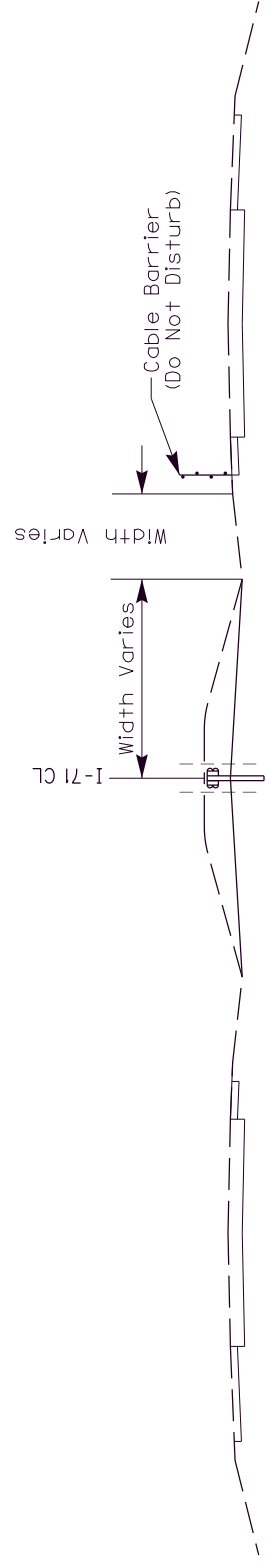
**HENRY COUNTY  
 PAVEMENT REHABILITATION  
 ITEM NO. 5--20002  
 PIPE DRAINAGE SUMMARY**

DIRECTION MILEPOINT OR STATION	ITEM CODE	CULVERT PIPE							HEADWALLS AND DROP BOX INLETS						MISCELLANEOUS							REMARKS																										
		①	①	①	①	①	①	①	METAL END SECTION	TY 3 - 15 IN	PIPE CULVERT	HEADWALL - 15 IN	PIPE CULVERT	HEADWALL - 18 IN	PIPE CULVERT	HEADWALL - 24 IN	FLUME INLET TYPE 1	REMOVE HEADWALL	CONCRETE - CLASS B	CONCRETE WEDGE	CURB		REMOVE PAVED	DITCH	REMOVE PIPE	CHANNEL LINING	REPLACE GRATE																					
		CULVERT PIPE - 18 IN	CULVERT PIPE - 24 IN	CULVERT PIPE - 36 IN	TY 3 - 15 IN	PIPE CULVERT	HEADWALL - 15 IN	PIPE CULVERT	HEADWALL - 18 IN	PIPE CULVERT	HEADWALL - 24 IN	FLUME INLET TYPE 1	REMOVE HEADWALL	CONCRETE - CLASS B	CONCRETE WEDGE	CURB	REMOVE PAVED	DITCH	REMOVE PIPE	CHANNEL LINING	REPLACE GRATE																											
LINEAR FEET												EACH												C.Y.			L.F.			S.Y.		L.F.		TONS		LBS												
NB MP 27.976																																																
NB MP 27.986																																																
SB MP 28.053																																																
<b>SHEET TOTALS</b>			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
<b>PROJECT TOTALS</b>			4	4	4	4	7	1	1	2	1	3	12	1016	6060	12	3011	181																														

① REINFORCED CONCRETE PIPE ONLY  
 ② THE CONTRACTOR SHALL FIELD VERIFY TYPES AND DIMENSIONS  
 PRIOR TO ORDERING PIPE, FRAMES & GRATES.  
 ③ TO BE USED AS DIRECTED BY THE ENGINEER  
 AT INLETS & OUTLETS FOR EROSION PROTECTION.

COUNTY OF	ITEM NO.	SHEET NO.
HENRY	5-20002	

## I-71 Henry County Crash Cushion Excavation Detail



BRIDGE OVER I-71	MILEPOST	LENGTH (LF)	EXCAVATION (CU YD)	CRUSHED AGG. NO. 57 (TONS)	CONCRETE-CLASS A (CU YD)	STEEL REINF. (LB)	CRASH CUSHION TYPE IX (EA)
KY 3320	25.940	450	1,380	36	19	196	1
KY 146	27.046	550	1,690	40	27 *	1,491 *	1
KY 153	27.677	400	1,230	33	17	196	1
<b>TOTALS:</b>		<b>1,400</b>	<b>4,300</b>	<b>109</b>	<b>63</b>	<b>1,883</b>	<b>3</b>

\* QUANTITIES ADDED FROM WALL RETROFIT TO PIERS DETAIL:

CONCRETE-CLASS A	21	CU YD
STEEL REINF.	1,296	LBS

**Median Excavation Note:**

Excavate the entire existing median pier berms at mileposts 25.940, 27.046 and 27.677 per this detail, Standard Drawing RBI-007-09, and per the Engineer's instructions. Grade and shape the resulting ditches to ensure positive drainage. All clearing necessary to remove the existing vegetation and landscaping materials (including plants, mulch, and fabric) will be incidental to Roadway Excavation and no additional payment will be made for this work.

A total design quantity of 4,300 CY for all three sites has been established and included in the Roadway Excavation Item. Final payment of this item of work will be based on design quantity with no adjustments due to differing site conditions or minor changes in grading. Dispose of waste generated from the excavation in accordance with the Standard Specifications. Debris or fabric from the landscaping shall not be left exposed at the waste site. Grade, shape, seed and provide temporary erosion control at the contractor's expense. The District may allow waste of this material on existing Right of Way at a site approved by the Engineer. The contractor will observe all requirements for ingress and egress. Quantities of Class A Concrete and Steel Reinforcement have been established for the Median Barrier Transitions and Crashwalls.

Construct median barrier end and wall between piers in accordance with RBE-070-06 for Mount Olivet Rd and KY 153. Construct wall retrofit between piers for KY 146 according to Wall Retrofit Between Piers Detail. Concrete Median Barrier Ends will only be constructed for the end of the Pier approached by the Southbound lanes due to the existing cable barrier on the Northbound lanes.

NOT TO SCALE

I-71  
MEDIAN EXCAVATION

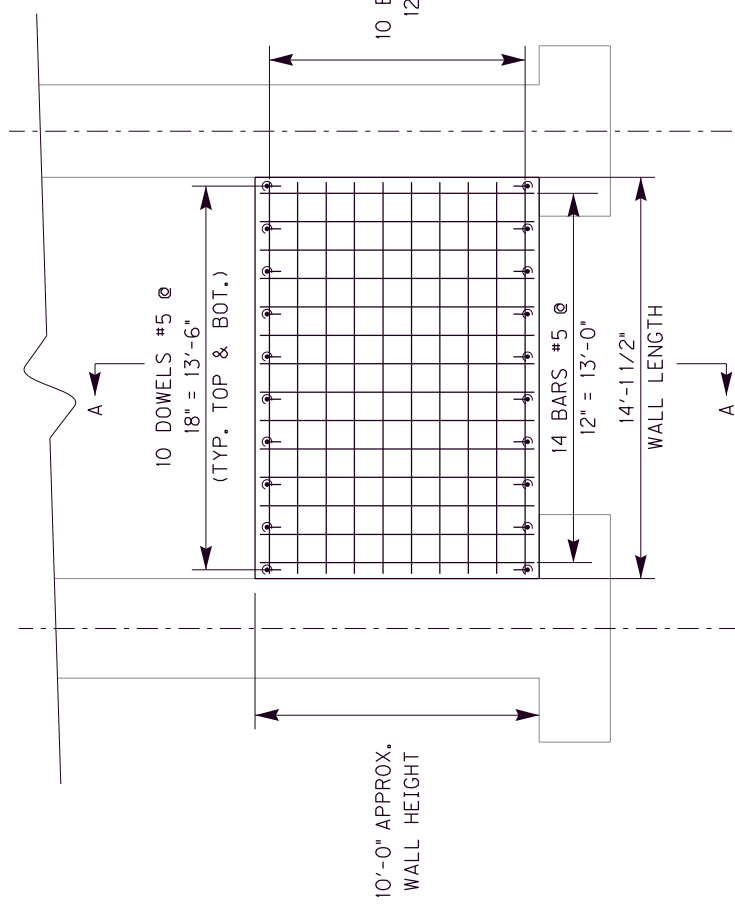
COUNTY OF	ITEM NO.	SHEET NO.
HENRY	5-20002	

# WALL RETROFIT BETWEEN PIERS

## I-71

### HENRY COUNTY

### KY 146 OVERPASS

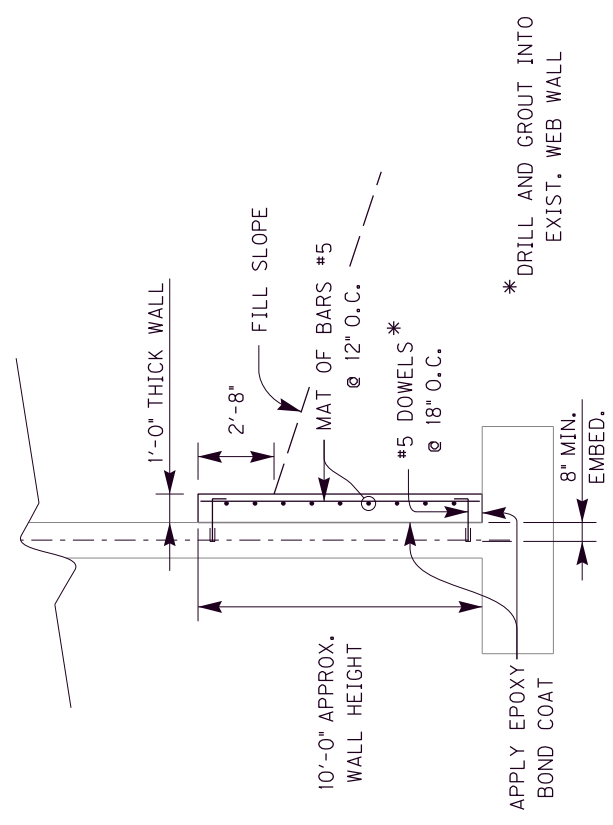


### WALL RETROFIT TO EXISTING PIER WEB

(TYPICAL 4 BAYS APPLICABLE)

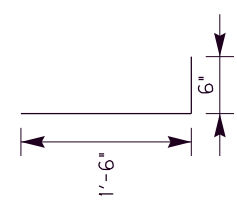
QUANTITIES	CONCRETE-CLASS A (CY)	STEEL REINFORCEMENT (LBS)
TOTALS:	21	1,296

NOTE:  
SEE SECTION 511 IN THE STANDARD SPECIFICATIONS FOR DRILLING & GROUTING DOWEL BARS. SEE SECTION 511.03.02 FOR APPLYING EPOXY BOND COAT.



### SECTION A-A

(TYP. BOTH SIDES)



**\* DOWELS #5**

NOT TO SCALE

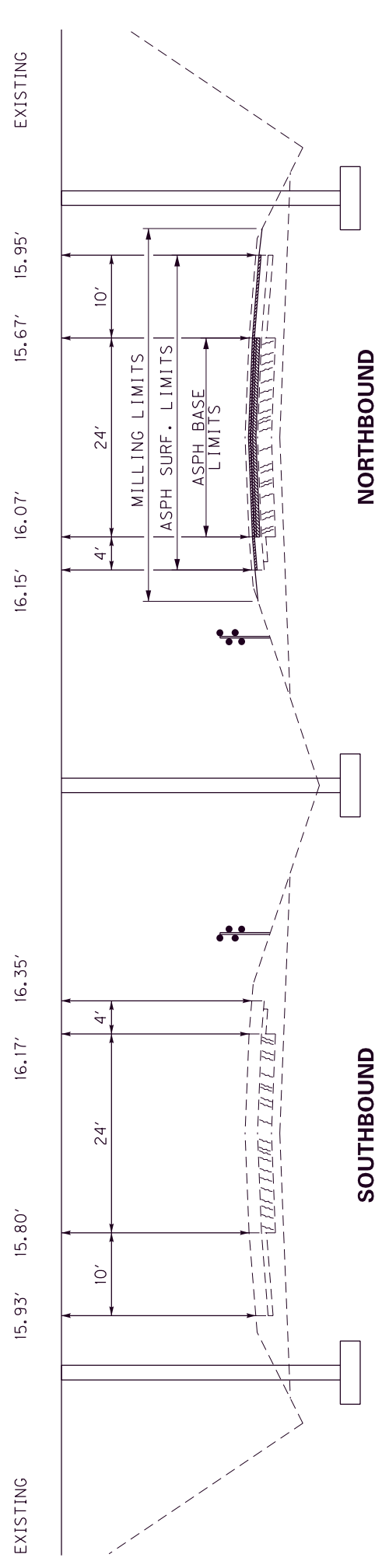
I-71  
WALL RETROFIT  
BETWEEN PIERS



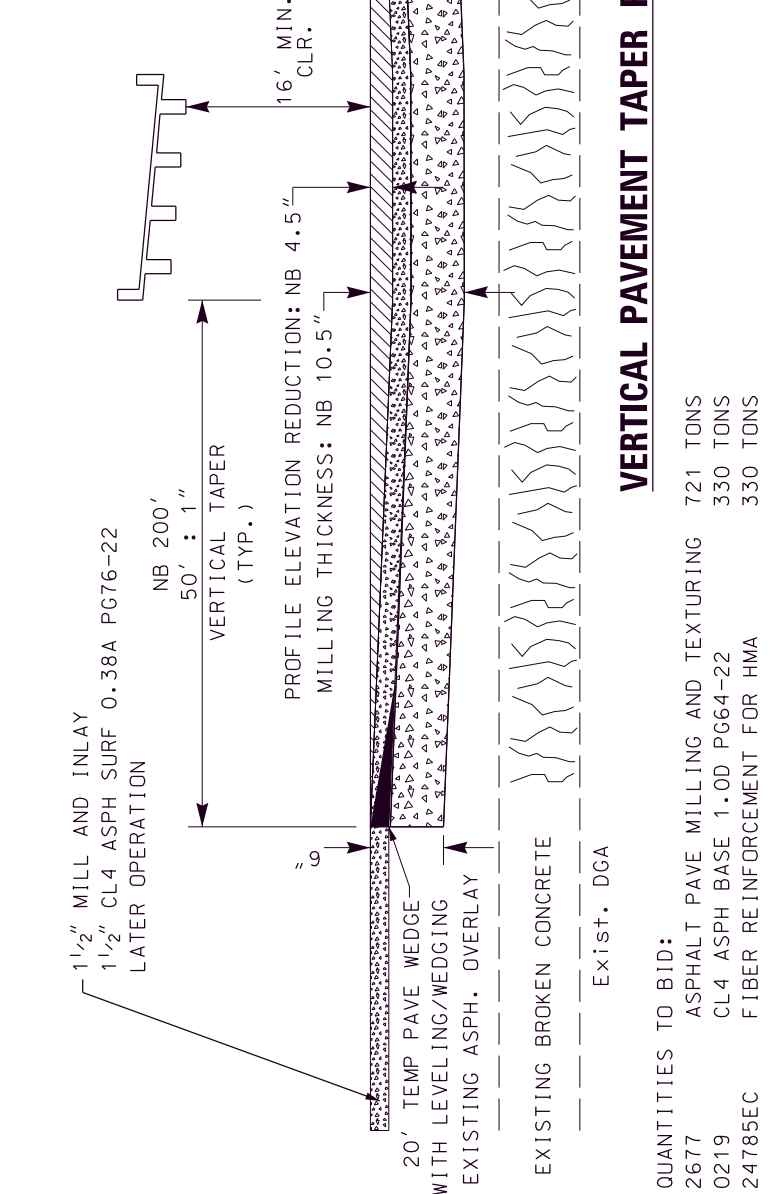
**KY 3320 MOUNT OLIVET ROAD  
MP 25.940  
NORTHBOUND**

County	Item No.	Sheet
HENRY	5-20002	

EXIST. KY 3320 OVER I-71



**NOTES:**  
 MILL 6" DEPTH TAPERING TO TOTAL DEPTH SHOWN. PLACE 4.5" CL4 ASPH BASE 1.00D PG76-22 WITH FIBERS, LEAVING PROFILE GRADE 1.5" BELOW PROPOSED. PROVIDE A 20' LONG WEDGE FROM EXISTING SURFACE WITH LEVELING/WEDGING.  
 MILL ADJACENT SHOULDERS TO MATCH ASPH. BASE LAYER.  
 REMOVE TEMP WEDGE DURING FINAL SURFACING OPERATION.  
 BOTH LANES MUST BE COMPLETED AND TRAFFIC RESTORED TO 2 LANES WITHIN ONE ALLOWABLE PERIOD OF CLOSURE TO 1 LANE.



**VERTICAL PAVEMENT TAPER PROFILE**

QUANTITIES TO BID:

2677	ASPHALT PAVE MILLING AND TEXTURING	721 TONS
0219	CL4 ASPH BASE 1.00D PG64-22	330 TONS
24785EC	FIBER REINFORCEMENT FOR HMA	330 TONS

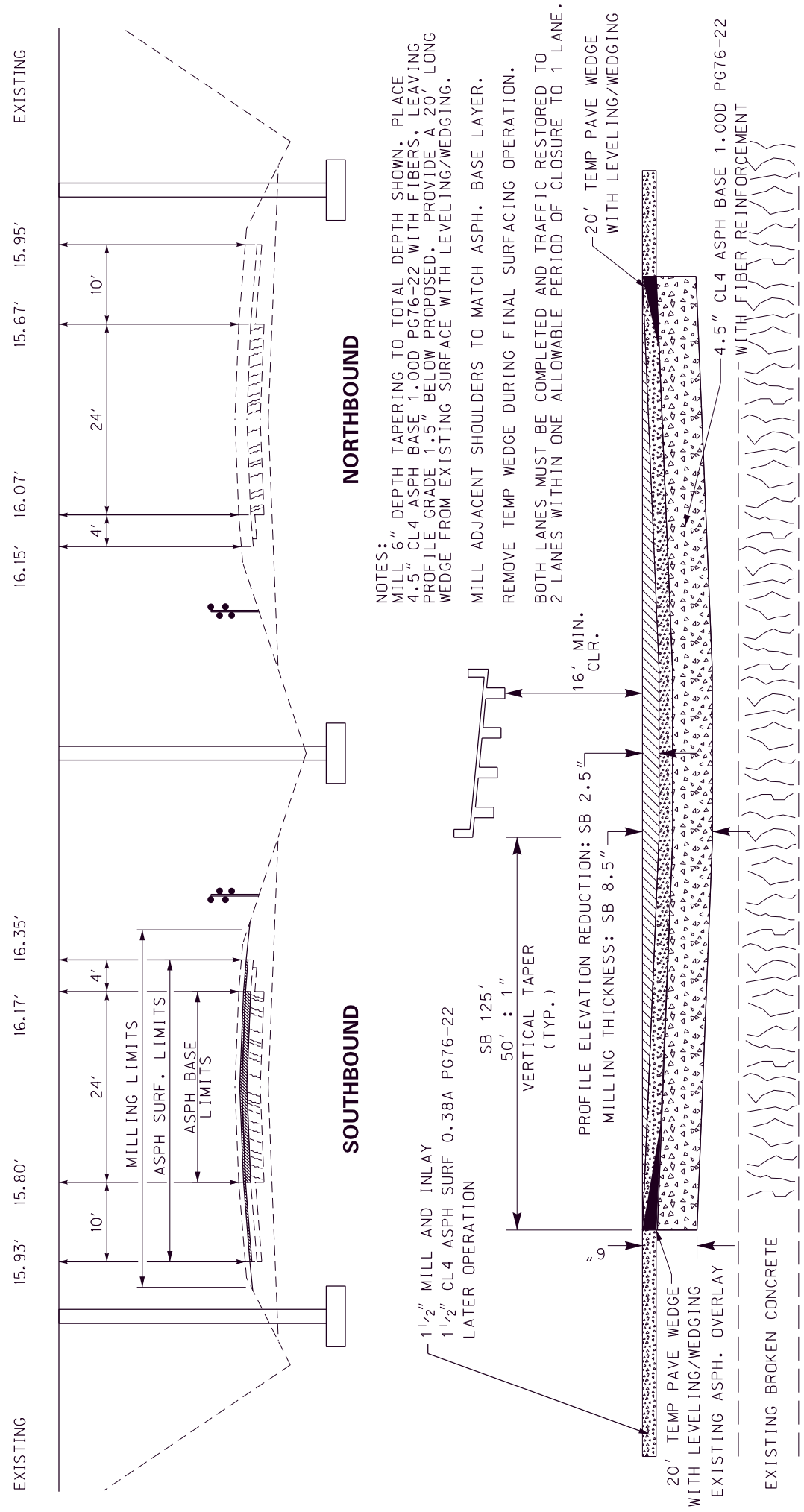
NOT TO SCALE

I-71  
VERTICAL CLEARANCE

**KY 3320 MOUNT OLIVET ROAD  
MP 25.940  
SOUTHBOUND**

County	Item No.	Sheet
HENRY	5-20002	

EXIST. KY 3320 OVER I-71



**VERTICAL PAVEMENT TAPER PROFILE**

QUANTITIES TO BID:

2677	ASPHALT PAVE MILLING AND TEXTURING	345 TONS
0219	CL4 ASPH BASE 1.00D PG64-22	198 TONS
24785EC	FIBER REINFORCEMENT FOR HMA	198 TONS

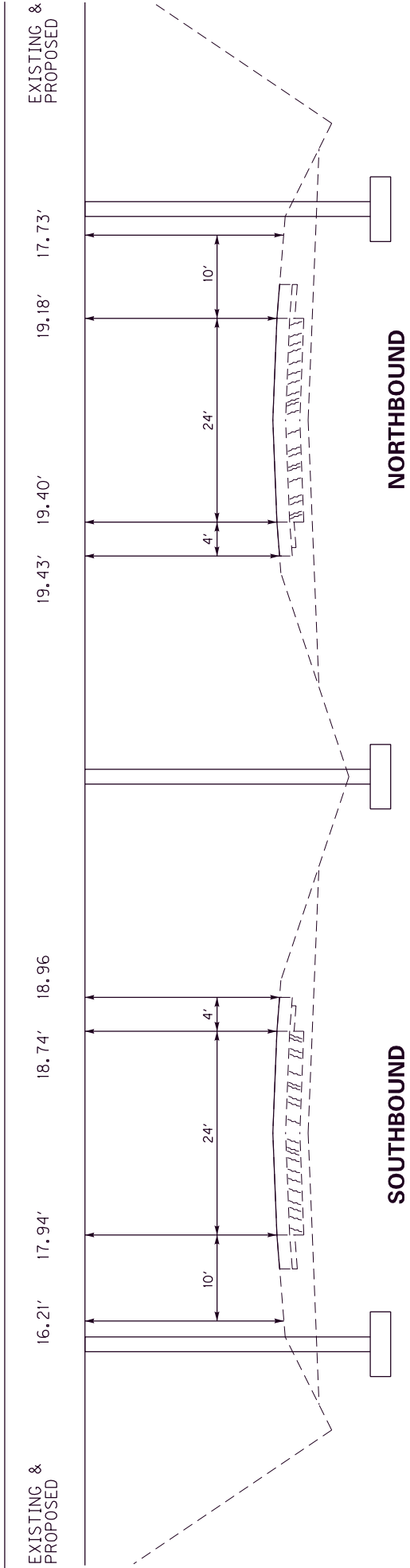
NOT TO SCALE

I-71  
VERTICAL CLEARANCE

County	Item No.	Sheet
HENRY	5-20002	

**KY 146  
 MP 27.046**

*EXIST. KY 146 OVER I-71*



**\*NO ACTION NEEDED**

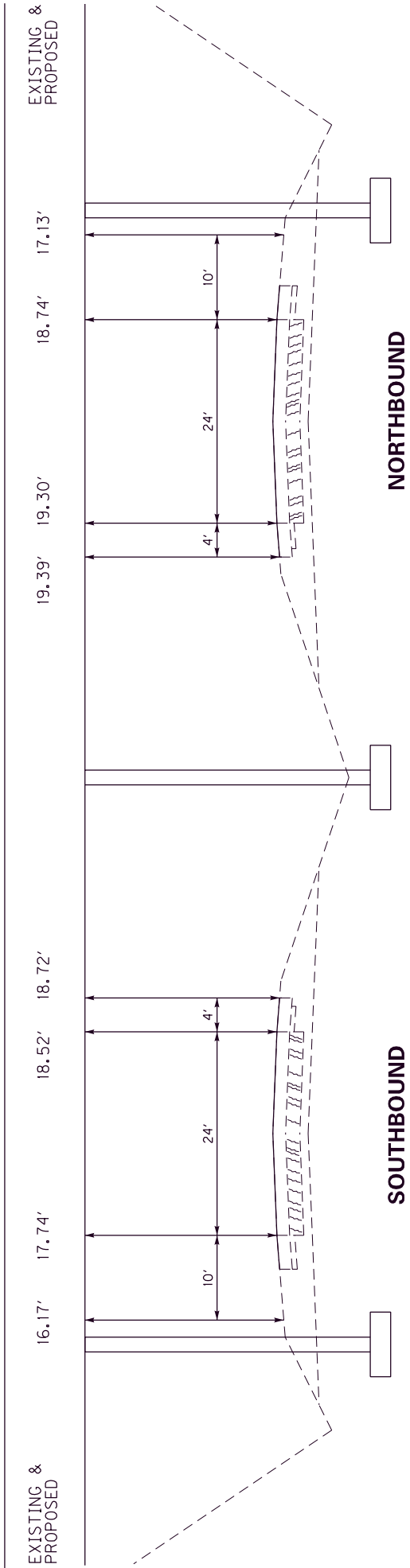
NOT TO SCALE

I-71  
 VERTICAL CLEARANCE

County	Item No.	Sheet
HENRY	5-20002	

**KY 153  
 MP 27.677**

*EXIST. KY 153 OVER I-71*



**\*NO ACTION NEEDED**

NOT TO SCALE

I-71  
 VERTICAL CLEARANCE

# LONGITUDINAL EDGE DRAIN DETAIL

COUNTY OF	ITEM NO.	SHEET NO.
HENRY	5-20002	

**NOTES :**

- (1) AN INITIAL CAMERA INSPECTION OF THE EXISTING LONGITUDINAL EDGE DRAIN SYSTEM WILL BE PERFORMED TO DETERMINE THE CONDITION OF THE EXISTING SYSTEM. THE CONTRACTOR WILL CONSULT WITH THE ENGINEER AFTER THE INITIAL INSPECTION TO DETERMINE THE EXTENT OF LOCATIONS THAT REQUIRE REPLACEMENT. EXISTING LONGITUDINAL EDGE DRAINS ALONG THE EDGE OF EXISTING PAVEMENT SHALL BE REMOVED WHERE DAMAGED, OBSTRUCTED, OR DEEMED NON-FUNCTIONAL BY THE INITIAL CAMERA INSPECTION AND NEW EDGE DRAINS CONSTRUCTED. REMOVAL AND DISPOSAL OF THE EXISTING UNDERDRAIN SYSTEM SHALL BE INCIDENTAL TO THE OTHER ITEMS OF WORK. ASPHALT QUANTITIES HAVE BEEN ADDED FOR THE CAP REPLACEMENT (SEE DETAIL).
- (2) ALL LONGITUDINAL PIPE DRAINAGE SYSTEMS FOR THE PAVEMENT SHALL BE OUTLETTED TO A HEADWALL OR MEDIAN BOX INLET. OUTLETS SHALL BE IN FILL SECTION WHENEVER POSSIBLE. OUTLET SPACING FOR THE 4" PIPE ON THE OUTSIDE EDGE OF EXIST. PAVT. SHALL NOT EXCEED 500 FEET EXCEPT GRADES 1/2 OR LESS, THEN THE SPACING SHALL NOT EXCEED 250 FEET. ALL SAGS SHALL HAVE AN OUTLET. USE EXISTING OUTFALL LOCATIONS WHERE POSSIBLE. REUSE EXISTING PERFORATED PIPE HEADWALLS WHERE POSSIBLE. TYING TO EXISTING HEADWALLS WILL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK.
- (3) FABRIC GEOTEXTILE TYPE IV AND CRUSHED AGGREGATE SIZE NO. 57 ARE INCIDENTAL TO PERFORATED PIPE-4". REMOVAL OF EXISTING EDGE DRAIN ON THE INSIDE AND OUTSIDE SHOULDER SHALL BE INCLUDED IN THE UNIT PRICE BID FOR NEW PERFORATED PIPE. WASTE THE EXISTING UNDERDRAIN PIPE. EXISTING PERFORATED PIPE HEADWALLS NOT BEING USED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

**LOCATIONS:**

TO BE DETERMINED.  
CONTINGENCY QUANTITIES HAVE BEEN ESTABLISHED AND ARE SHOWN ON THE GENERAL SUMMARY BASED ON AN ESTIMATION THAT APPROXIMATELY 25% OF THE EXISTING SYSTEM WILL REQUIRE REPLACEMENT. FINAL PAYMENT OF THESE ITEMS WILL BE BASED ON THE ACTUAL QUANTITIES PLACED. A QUANTITY OF REMOVE AND RESET PERF PIPE HEADWALL HAS BEEN ESTABLISHED TO BE USED AT THE ENGINEERS DISCRETION TO REUSE EXISTING HEADWALLS AND CORRECT ELEVATIONS.

**SPECIAL NOTE FOR PAVEMENT SUBSURFACE DRAINAGE OUTLET**

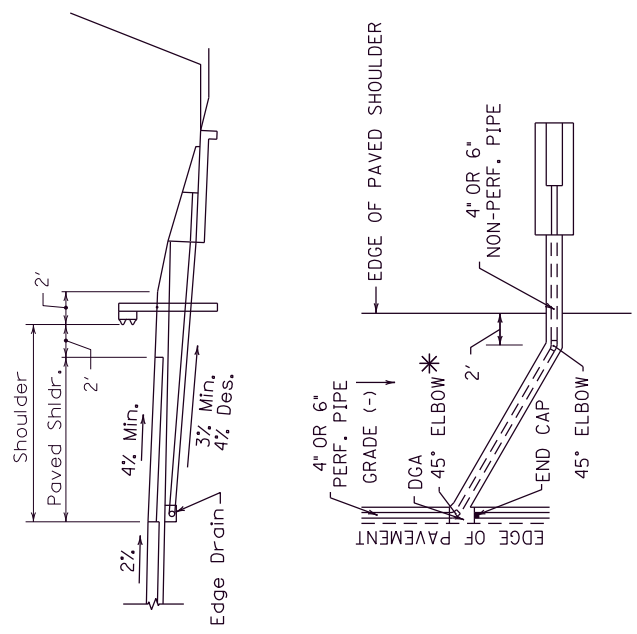
A QUANTITY OF CRUSHED AGGREGATE SIZE NO. 2 AS DEFINED IN THE CURRENT "KENTUCKY STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" SHALL BE USED AT ALL PERFORATED PIPE HEADWALL OUTLETS AS ILLUSTRATED IN THE DETAIL AT RIGHT. CRUSHED AGGREGATE SIZE NO. 2 SHALL BE PLACED A MINIMUM DEPTH OF 4 INCHES AS DETAILED BELOW.

DENSE GRADED AGGREGATE (DGA) REMOVED DURING PLACEMENT OF THE CRUSHED AGGREGATE SIZE NO. 2 SHALL BE USED TO DRESS THE EXISTING SHOULDERS WHERE DGA IS EXPOSED. OTHER MATERIALS REMOVED DURING PLACEMENT OF THE CRUSHED AGGREGATE SIZE NO. 2 SHALL BE WASTED AS DIRECTED BY THE ENGINEER. NO DIRECT PAYMENT WILL BE ALLOWED FOR DISPOSAL OF WASTED MATERIAL.

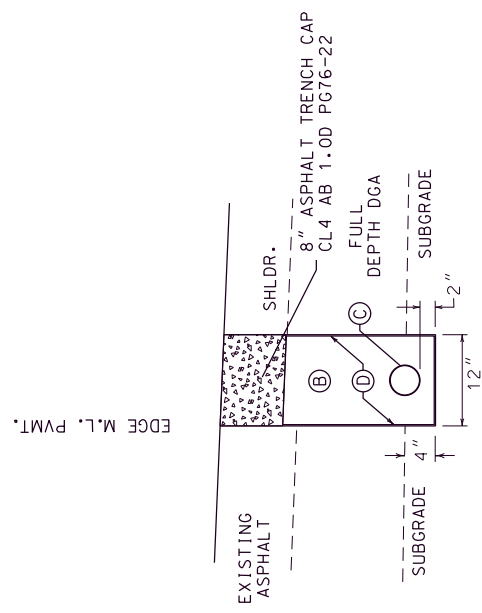
THE CONTRACT UNIT PRICE FOR "CRUSHED AGGREGATE SIZE NO. 2" SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, AND OTHER INCIDENTALS NECESSARY TO PLACE CRUSHED AGGREGATE SIZE NO. 2 FOR CONTROL OF VEGETATION AND/OR EROSION CONTROL AT PAVEMENT EDGE DRAIN OUTLETS.

SEE CURRENT STANDARD DRAWING ROP-010 FOR DIMENSIONS AND OTHER DETAILS.

ESTIMATE ONE TON OF CRUSHED AGGREGATE SIZE NO. 2 FOR EACH PERFORATED PIPE HEADWALL OUTLET.

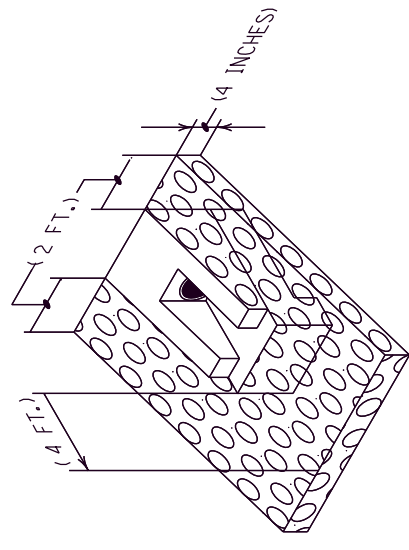


\* Use Tee in Lieu of Elbow at Sump Conditions  
( OUTSIDE SHOULDER )



- (B) CRUSHED AGGREGATE SIZE NO. 57 (NO SAND)
- (C) PERFORATED PIPE - 4" OR 6" (NO SOCK)
- (D) NON-PERFORATED PIPE - 4" OR 6" (OUTLET)
- (E) TYPE IV GEOTEXTILE FABRIC

PERFORATED PIPE  
DRAIN REPLACEMENT



PAVEMENT SUBSURFACE DRAINAGE OUTLET

NOT TO SCALE

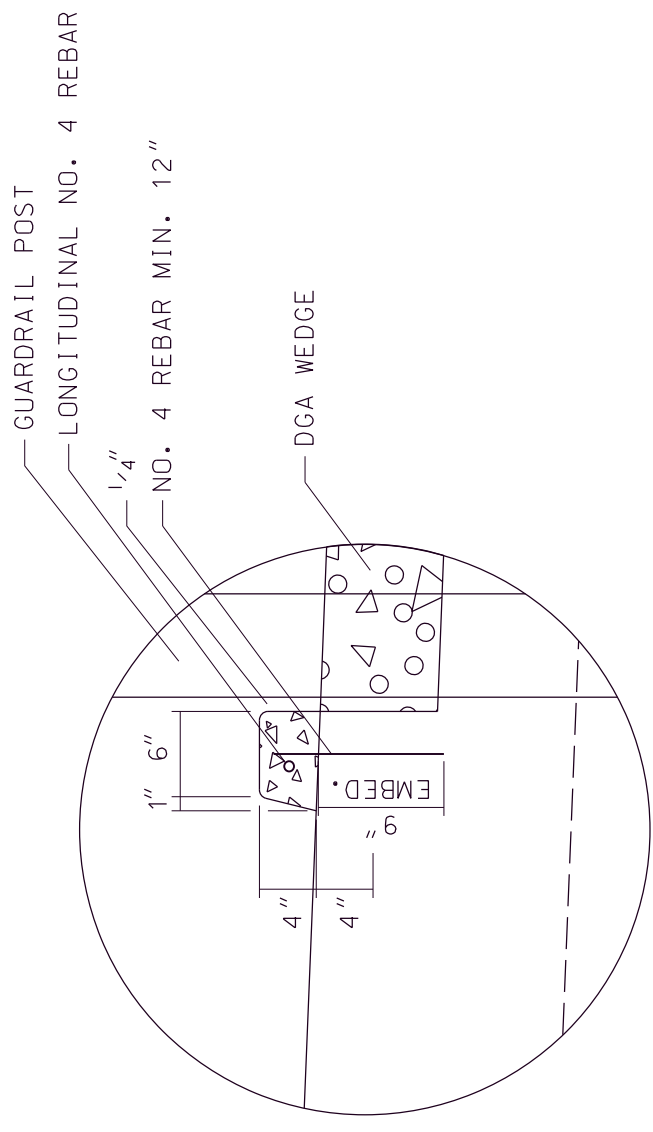
**I-71 PROPOSED  
EDGE DRAIN DETAIL**

# CONCRETE WEDGE CURB DETAIL

## I-71

### HENRY COUNTY

County	Item No.	Sheet
HENRY	5-20002	



DIRECTION	START MP	END MP	LF	FLUME INLET TY. 1 (EA.)
SB	25.563	25.677	602	1
SB	27.967	28.046	414	-
<b>TOTALS:</b>			<b>1,016</b>	<b>1</b>

\* ITEMS CARRIED TO PIPE SUMMARY

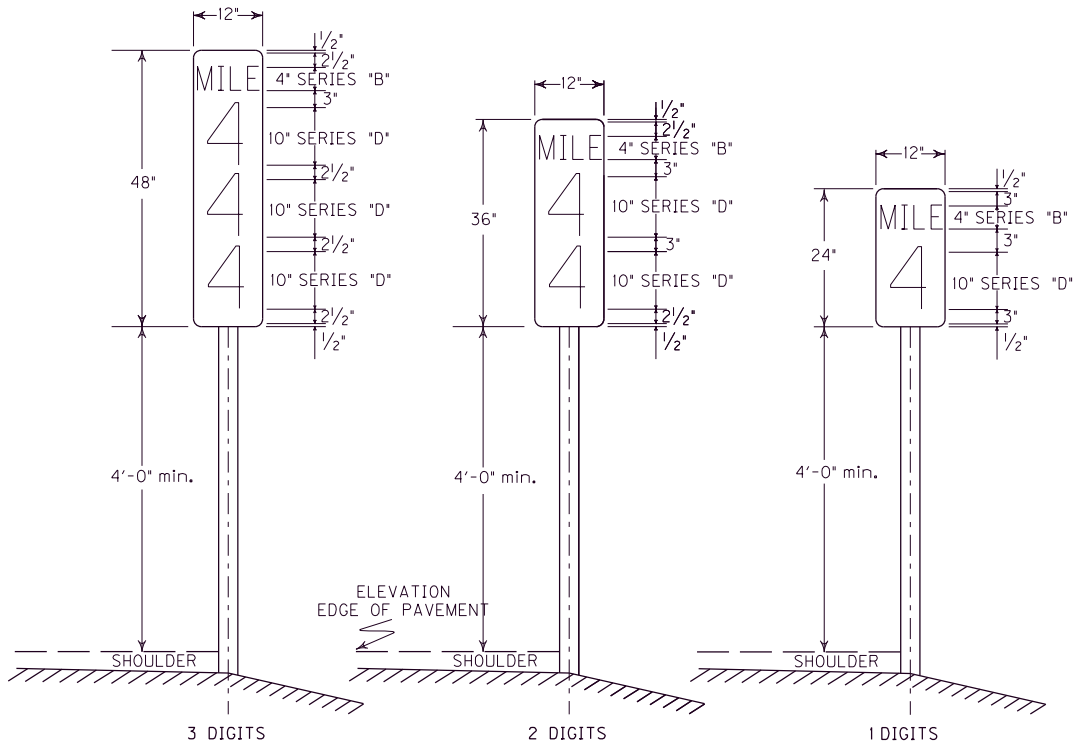
ALL REINFORCEMENT INCIDENTAL TO CURB PER LINEAR FOOT. PLACE ONE #4 BAR LONGITUDINALLY. PLACE VERTICAL #4 DOWELS ON 12" CENTERS.

NOT TO SCALE

I-71

PAVEMENT REHABILITATION  
CONCRETE WEDGE CURB

## MILEPOST MARKERS



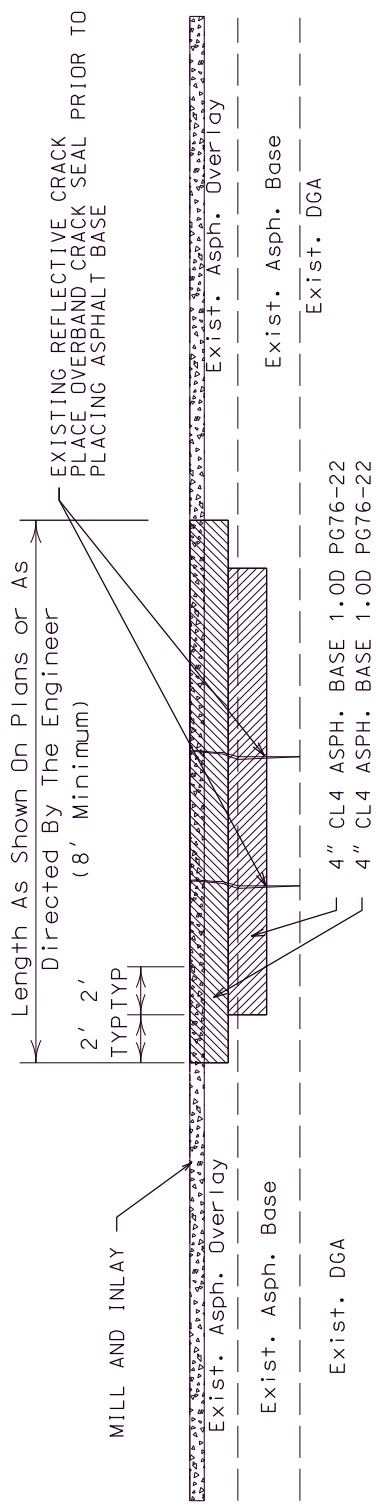
### TYPICAL SIGN PANEL DIMENSIONS AND MILEPOST LOCATIONS

MILE POST NUMBER	STATION NUMBER *
	BOUND LANE (S)
27	N.B. MP 27.000

MILE POST NUMBER	STATION NUMBER *
	BOUND LANE (S)

County	Item No.	Sheet
HENRY	5-20002	

# I-71 PAVEMENT REPAIR DETAIL HENRY COUNTY



## PAVEMENT REPAIR PROFILE DETAIL

① "PAVEMENT REPAIR" locations are to be determined as directed by the Engineer. The Engineer shall make the final determination as to the width, depth, and length and the exact location of each pavement repair. For estimate purposes quantities were estimated based on 4" thicknesses with additional quantity added to be used on an increase of 50% to be used for additional depth repairs or additional locations.

After all existing material has been removed to the dimensions shown, each course of Asphalt Refill shall be compacted to the proper density for the material being placed as required in the Standard Specifications.

Stagger milling depths as detailed to introduce a lap for each layer of asphalt base over the existing asphalt. Lap 1' into the adjacent lane.

Allow traffic to run on base courses in repair area minimum of 14 days prior to final surfacing.

- Bid items for this work are as follows:
- Asphalt Milling and Texturing TONS
  - CL 4 Asphalt Base 1,000 PG76-22 TONS
  - Overband Crack Sealing LBS

NOT TO SCALE



County	Item No.	Sheet
HENRY	5-20002	

LOCATIONS AND DEPTHS OF REQUIRED PATCHING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.								
LOCATION	MP. FROM	MP. TO	LENGTH	WIDTH	T	S. Y.	TONS CRACK SEALING (LBS)	
NB IN	24.958	24.965	36	14	4*	56	12	
NB OUT	25.043	25.057	77	14	4*	119	26	
SB OUT	25.204	25.220	84	14	4*	131	29	
NB BOTH	25.250	25.265	79	28	4*	246	54	
NB BOTH	25.294	25.309	79	28	4*	245	54	
SB OUT	25.338	25.345	41	14	4*	64	14	
NB OUT	25.346	25.354	40	14	4*	62	14	
NB BOTH	25.407	25.414	39	28	4*	122	27	
SB OUT	25.417	25.459	223	14	4*	346	76	
SB BOTH	25.571	25.579	38	28	4*	119	26	
NB BOTH	25.723	25.749	137	14	4*	213	47	
SB OUT	25.726	25.838	593	14	4*	923	203	
SB OUT	25.903	25.926	120	14	4*	186	41	
NB BOTH	25.967	25.971	20	28	4*	62	14	
SB BOTH	25.971	25.975	20	28	4*	62	14	
SB OUT	25.975	26.013	200	14	4*	312	69	
NB BOTH	25.999	26.002	20	28	4*	62	14	
SB BOTH	26.080	26.141	326	28	4*	1015	223	
NB OUT	26.151	26.199	253	14	4*	394	87	
SB BOTH	26.171	26.200	152	28	4*	474	104	
SB BOTH	26.282	26.314	169	28	4*	527	116	
SB BOTH	26.404	26.415	59	28	4*	184	40	
SB BOTH	26.448	26.459	58	28	4*	181	40	
NB OUT	26.531	26.577	245	14	4*	381	84	
SB BOTH	26.568	26.576	40	28	4*	124	27	
NB OUT	26.591	26.614	121	14	4*	188	41	
SB OUT	26.626	26.657	165	14	4*	257	57	
SB OUT	26.712	26.715	17	14	4*	27	6	
SB OUT	26.933	26.950	88	14	4*	137	30	
NB BOTH	26.981	26.985	20	28	4*	62	14	
SB OUT	26.991	26.995	20	14	4*	31	7	
NB BOTH	27.001	27.014	70	28	4*	216	48	
SB OUT	27.014	27.018	20	14	4*	31	7	
NB BOTH	27.062	27.099	197	28	4*	614	135	
NB OUT	27.156	27.162	31	14	4*	49	11	
SB BOTH & RAMP	27.179	27.509	N/A	N/A	4*	7216	1588	
NB BOTH	27.210	27.254	229	28	4*	713	157	
NB RAMP	27.400	27.488	N/A	N/A	4*	1284	283	
SB OUT	27.609	27.611	12	14	4*	19	4	
NB OUT	27.701	27.706	22	14	4*	34	7	
NB OUT	27.736	27.748	60	14	4*	93	20	
NB RAMP	27.825	27.974	N/A	N/A	4*	2154	474	
SB RAMP	27.879	28.035	N/A	N/A	4*	2412	531	
NB BOTH	28.107	28.113	28	28	4*	88	19	
TOTAL TONS ASPH BASE & ASPH. MILLING & LBS CRACK SEALING							2,446	425

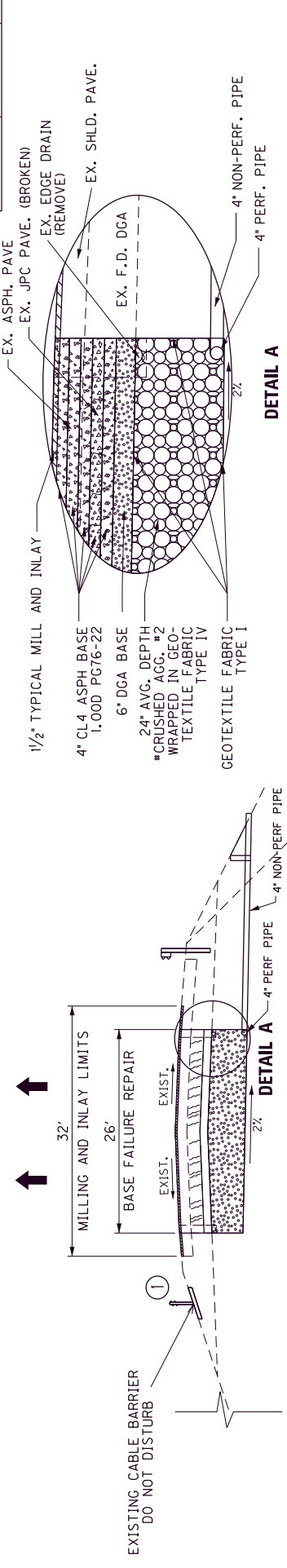
NOT TO SCALE

I-71  
PAVEMENT REPAIR DETAIL

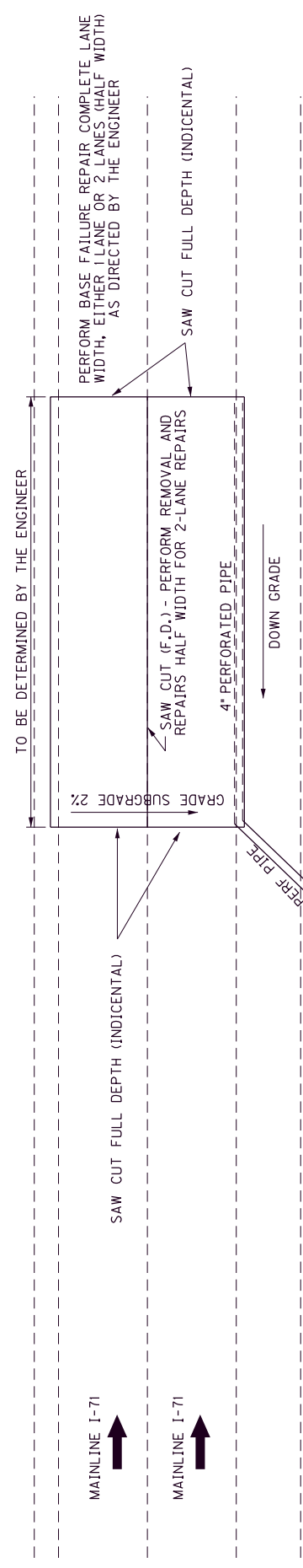
NOTE: ALL QUANTITIES CARRIED OVER TO THE GENERAL SUMMARY

County	Item No.	Sheet
HENRY	5-20002	

# BASE FAILURE REPAIRS



**DETAIL A**



**DETAIL A**

FULL DEPTH BASE FAILURE REPAIRS SHALL BE PERFORMED AT LOCATIONS SELECTED BY AND AS DIRECTED BY THE ENGINEER. THE ENGINEER WILL ASSESS AND MARK AREAS FOR TREATMENT. THE FULL WIDTH OF LANE WILL BE REMOVED AND REPLACED. THE ENGINEER MAY ELECT TO PERFORM REPAIRS ON EITHER ONE LANE OR BOTH MAINLINE LANES. SELECT AN APPROPRIATE OUTLET SOURCE WHICH MAY INCLUDE A PERFORATED PIPE HEADWALL OR CORED HOLE IN AN EXISTING DROP BOX INLET. INLET MAY BE IN THE MEDIAN OR FILL SLOPE. NON-PERFORATED OUTLET PIPE MAY REQUIRE INSTALLATION AT SIGNIFICANT LENGTH OR ADJUSTED ALIGNMENT TO PROVIDE POSITIVE DRAINAGE. GRADE SUBGRADE DRAINAGE TO THE OUTLET SIDE OF THE EXCAVATION AT 2%, INSTALL A LONGITUDINAL PERFORATED PIPE ON THE LOW SIDE OF SUBGRADE CONNECTING TO THE DOWN GRADE OUTLET.

EXACT LOCATIONS OF REPAIRS HAVE NOT BEEN SELECTED. THE ENGINEER WILL SELECT AND MARK AREAS FOR REPAIR. THE ENGINEER RESERVES THE RIGHT TO LENGTHEN, SHORTEN, ADJUST DEPTHS AND OTHER DIMENSIONS OF REPAIRS, AND SELECT THE NUMBER OF LANES TO REPAIR.

FOR ESTIMATE PURPOSES, QUANTITIES HAVE BEEN ESTABLISHED TO PERFORM BASE FAILURE REPAIRS ON APPROXIMATELY 300 LF. OF ROADWAY, 2 LANES WIDTH. THE ENGINEER RESERVES THE RIGHT TO SELECT ANY AFFECTED AREA FOR REPAIR, ADJUST DIMENSIONS AND QUANTITIES OF REPAIRS, AND ADD OR ELIMINATE REPAIR AREAS. FINAL PAYMENT WILL BE BASED ON THE MEASURED QUANTITIES OF ITEMS INSTALLED.

COMPLETE BASE FAILURE OPERATIONS IN ONE CONTINUOUS SHIFT AND PURSUE TO COMPLETION. REMOVE PAVEMENT AND EXCAVATE TO THE REQUIRED DEPTH, WRAPPED #2 STONE, PLACE DGA AND ASPHALT BASE TO THE EXISTING SURFACE ELEVATION, OPENING TRAFFIC TO TWO LANES WITHIN THE TIME SPECIFIED IN THE M.O.T. SCHEDULE.

PERFORM BASE FAILURE REPAIR COMPLETE LANE WIDTH, EITHER 1 LANE OR 2 LANES (HALF WIDTH) AS DIRECTED BY THE ENGINEER

SAW CUT FULL DEPTH (INDICENTIAL)

SAW CUT FULL DEPTH (INDICENTIAL)

PERFORATED PIPE

DOWN GRADE

GRADE SUBGRADE 2%

4" PERFORATED PIPE

UNDERDRAIN OUTLET PERFORATED PIPE HEADWALL OR CORED HOLE DRAINAGE BOX

NON-PERF PIPE

TO BE DETERMINED BY THE ENGINEER

- \* QUANTITIES TO BID:**
- 0001 DGA BASE 299 TONS
  - 0078 CRUSHED AGGREGATE #2 936 TONS
  - 0219 CL4 ASPH BASE 1,000 PG76-22 953 TONS
  - 0356 ASPHALT MATERIAL FOR TACK 1.5 TONS
  - 2091 REMOVE PAVEMENT 867 SQ. YD.
  - 2200 ROADWAY EXCAVATION 722 CU. YD.
  - 2596 FABRIC-GEOTEXTILE TYPE I 1820 SQ. YD.
- \* QUANTITIES CARRIED OVER TO PAVING SUMMARY**
- 0 QUANTITIES CARRIED OVER TO GENERAL SUMMARY
- \* - ONLY ITEMS LISTED WILL BE CONSIDERED FOR PAYMENT AND WILL BE CONSIDERED FULL COMPENSATION FOR THE WORK REQUIRED. ANY OTHER ITEMS OF WORK NOT LISTED FOR PAYMENT WILL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK.**

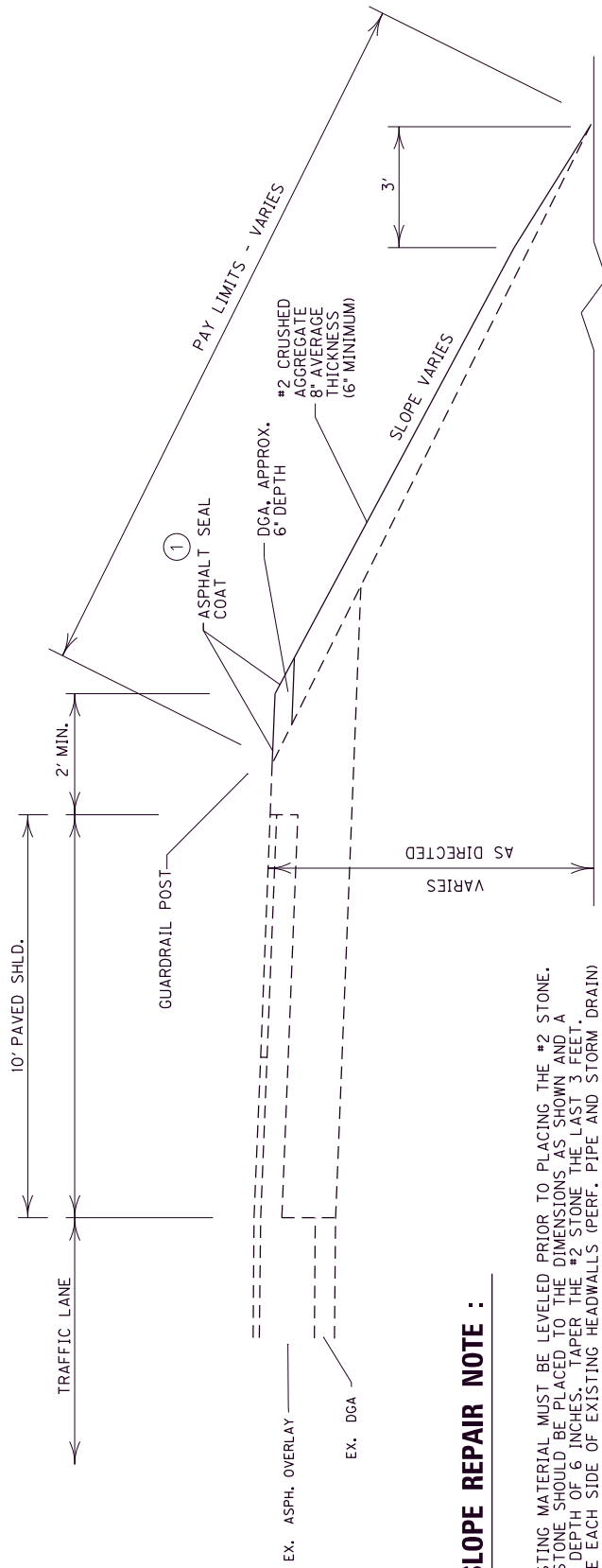
**NOTE:**  
CAUTION: EXISTING CONCRETE PAVEMENT EXISTS BELOW THE ASPHALT PAVEMENT. THE ITEM REMOVE PAVEMENT INCLUDES REMOVAL OF ALL ASPHALT AND CONCRETE PAVEMENT TO THE TOP OF STONE BASE LAYER.  
1. THE ITEM ROADWAY EXCAVATION WILL INCLUDE ALL EXCAVATION FROM THE TOP OF STONE BASE LAYER TO THE BOTTOM OF EXCAVATION.  
2. ALL PERFORATED PIPE, NON-PERFORATED PIPE, CORED HOLE DRAINAGE STRUCTURES, OR PERFORATED PIPE HEADWALL WILL NOT BE MEASURED FOR PAYMENT AND WILL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK.  
3. REMOVAL OF THE EXISTING DRAIN SYSTEM WILL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK.  
4. SAW CUT OF EXISTING PAVEMENT WILL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK.  
5. REPLACE ASPHALT BASE TO THE ELEVATION OF THE EXISTING PAVEMENT. PERFORM TYPICAL MILL AND INLAY OPERATIONS WITH TYPICAL RESURFACING ITEMS SUBJECT TO PAYMENT AS PART OF THE TYPICAL RESURFACING OPERATION.  
6. TRAFFIC MUST RUN ON BASE REPAIR PAVEMENT A MINIMUM OF 14 DAY PRIOR TO RESURFACING. MONITOR PAVEMENT FOR SETTLEMENT AND REPAIR BY LEVELING AND WEDGING AS APPROVED BY THE ENGINEER UNTIL PLACEMENT OF FINAL SURFACE COURSE.

I-71  
BASE FAILURE REPAIRS

NOT TO SCALE

COUNTY OF	ITEM NO.	SHEET NO.
HENRY	5-20002	

# SHOULDER EROSION REPAIR DETAIL



## SLOPE REPAIR NOTE :

THE EXISTING MATERIAL MUST BE LEVELED PRIOR TO PLACING THE #2 STONE. THE #2 STONE SHOULD BE PLACED TO THE DIMENSIONS AS SHOWN AND A MINIMUM DEPTH OF 6 INCHES. TAPER THE #2 STONE THE LAST 3 FEET. EXCAVATE EACH SIDE OF EXISTING HEADWALLS (PERF. PIPE AND STORM DRAIN) TO A THICKNESS 6 INCHES BELOW THE HEADWALL SURFACE FOR A WIDTH OF 5 FEET EACH SIDE OF THE HEADWALL AND BLEND #2 STONE TO THE HEADWALL WINGS. DISPOSE OF EXCESS MATERIAL OFF THE PROJECT.

THE BID ITEM \*CRUSHED AGGREGATE SIZE NO. 2\* INCLUDES ALL LABOR AND EQUIPMENT NECESSARY TO GRADE THE EXISTING SLOPE AND CAP THE SLOPE WITH A MINIMUM OF 6 INCHES OF #2 STONE.

EXTEND THE REPAIRS ONLY THROUGH THE WASH AREA. DO NOT DISTURB AREAS WITH ESTABLISHED VEGETATION.

REMOVE GUARDRAIL WHERE NECESSARY TO PERFORM SHOULDER REPAIRS. PIN ENDS DOWN TO ELIMINATE EXPOSURE TO BLUNT ENDS AND PLACE TRAFFIC DRUMS ON SHOULDER AT 20' SPACING UNTIL GUARDRAIL IS RE-ESTABLISHED. QUANTITIES HAVE BEEN ESTABLISHED FOR PAYMENT OF GUARDRAIL REMOVAL AND INSTALLATION OF NEW RAIL FOR AREAS NOT RECEIVING NEW GUARDRAIL DUE TO DAMAGE.

## BID ITEM \*

0078	CRUSHED AGGREGATE NO. 2	709 TONS
2381	REMOVE GUARDRAIL	1,475 LF
2351	GUARDRAIL STEEL W BEAM-S FACE	1,475 LF
0001	DGA BASE	88 TONS

ASPHALT SEAL COAT QUANTITIES ESTABLISHED IN THE PAVING SUMMARY

## LOCATIONS:

NORTHBOUND		SOUTHBOUND	
MILEPOST	LENGTH	MILEPOST	LENGTH
25.491	122'	25.746	239'
27.436	445'	27.402	35'
27.962	225'	27.967	102'
28.074	204'	28.026	106'

- ① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE OR BOTTOM OF DGA LAYER.
- TWO APPLICATIONS OF THE FOLLOWING :
  - ASPHALT SEAL COAT..... 2.4 lbs. / S.Y.
  - ASPHALT SEAL AGGREGATE ..... 20 lbs. / S.Y.

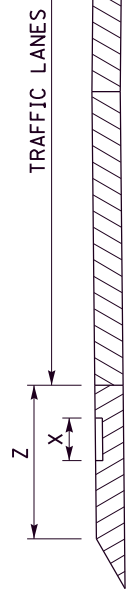
THE ENGINEER MAY INCLUDE ADDITIONAL LOCATIONS AND ADDITIONAL QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

\* (CARRIED ON GENERAL SUMMARY)

NOT TO SCALE

I-71  
SLOPE REPAIR DETAIL

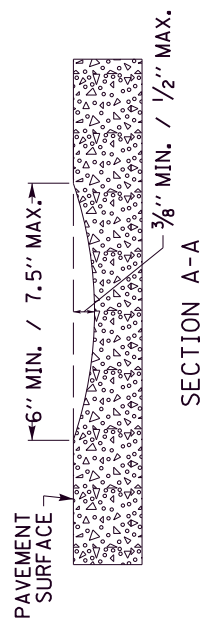
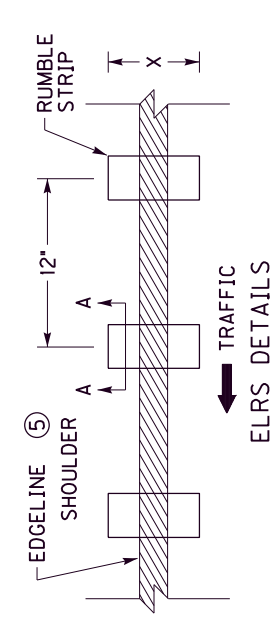
COUNTY OF	ITEM NO.	SHEET NO.
HENRY	5-20002	



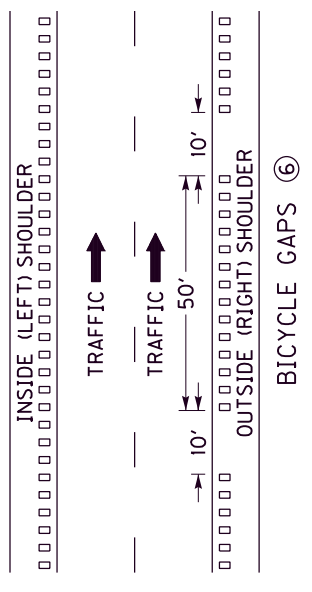
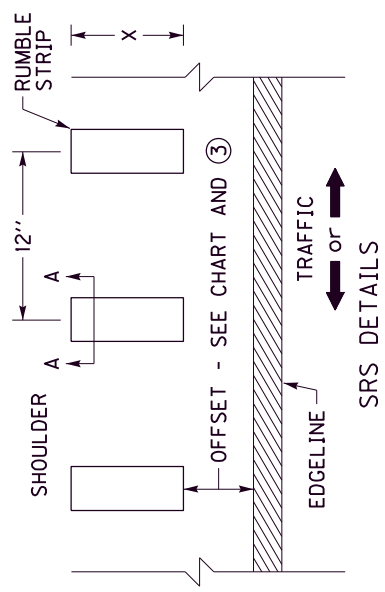
PAVEMENT CROSS-SECTION  
(WHEN SRS ARE SPECIFIED)



PAVEMENT CROSS-SECTION  
(WHEN ELRS ARE SPECIFIED)



SHOULDER WIDTH (Z) ②	RUMBLE TYPE ①	RUMBLE LENGTH (X) ③	OFFSET ③
>=1'	ELRS	8"	N/A
2'	ELRS or SRS	8"	ELRS-N/A SRS-6"
3'	ELRS or SRS	8"	ELRS-N/A SRS-6"
4'	ELRS or SRS	8"	ELRS-N/A SRS-6"
5'	SRS ⑥	8"	6"
6'	SRS ⑥	8"	6"
7'	SRS ⑥	12"	12"
>=8'	SRS ⑥	16"	12"



~ NOTES ~

- FOR MULTI-LANE ROADWAYS, THE RUMBLE TYPE TO BE INSTALLED IS BASED ON SHOULDER WIDTH (Z). FOR SHOULDER WIDTHS OF 2', 3', AND 4' THE RUMBLE TYPE MAY BE SPECIFIED AS EITHER EDGELINE RUMBLE STRIPS (ELRS) OR SHOULDER RUMBLE STRIPS (SRS). IN THESE SITUATIONS, THE RUMBLE TYPE TO BE INSTALLED WILL BE SPECIFIED IN THE PLANS, PROPOSAL, AND/OR BID ITEMS, OR AS DIRECTED BY THE ENGINEER.
- WHEN ELRS ARE SPECIFIED, SHOULDER WIDTH (Z) IS FROM LANE SIDE EDGE OF RUMBLE STRIP TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT. WHEN SRS ARE SPECIFIED, SHOULDER WIDTH (Z) IS FROM CENTER OF EDGELINE STRIPE TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT.
- RUMBLE LENGTH (X) AND/OR OFFSET DISTANCE MAY BE MODIFIED AS THE ENGINEER DIRECTS, IF THE SHOULDER WIDTH (Z) IS EQUAL TO OR LESS THAN THE COMBINED WIDTH OF THE PROPOSED RUMBLE LENGTH (X) AND OFFSET DISTANCE.
- DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE.
- WHEN ELRS ARE SPECIFIED, THE EDGELINE MARKING SHALL BE PLACED IN THE CENTER OF THE RUMBLE STRIP.
- SHOULDER RUMBLE STRIPS (SRS) ALONG OUTSIDE (RIGHT) SHOULDERS THAT ARE 5' OR WIDER SHOULD INCLUDE BICYCLE GAPS AS DETAILED. BICYCLE GAPS ARE NOT REQUIRED ON INSIDE (LEFT) SHOULDERS. BICYCLE GAPS SHALL NOT BE USED ON INTERSTATES AND PARKWAYS.
- RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS, OR WHEN THE SHOULDER WIDTH IS LESS THAN 1 FT.

BID ITEMS AND UNIT TO BID  
SHOULDER RUMBLE STRIPS  
EDGELINE RUMBLE STRIPS

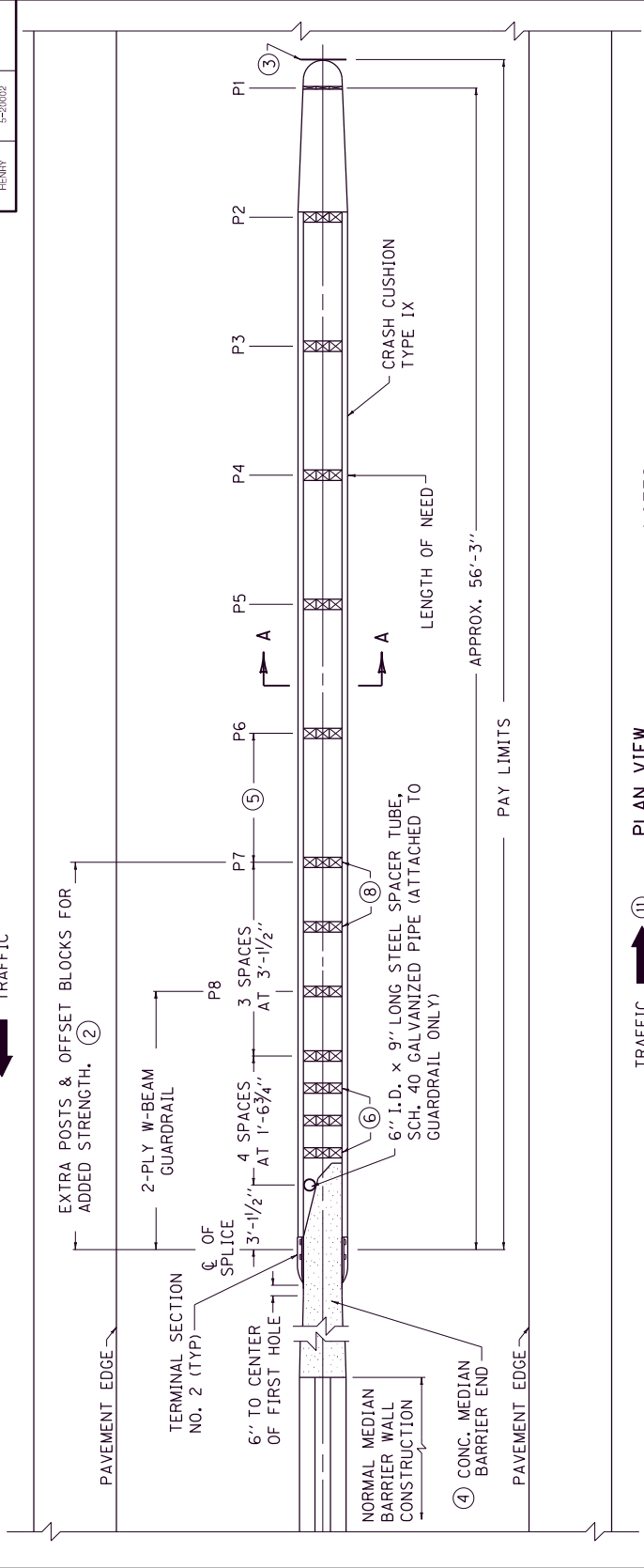
LF  
LF

USE WITH SEP1A 005

KENTUCKY  
DEPARTMENT OF HIGHWAYS  
RUMBLE STRIP DETAILS  
MULTI-LANE ROADWAYS  
AND RAMPS

DATE: 11-23-16  
SUBMITTED: *B. Offenberg*

COUNTY OF	HENRY
REV. NO.	5-2002
SHEET NO.	



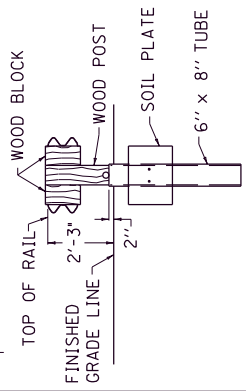
TRAFFIC →

→ TRAFFIC

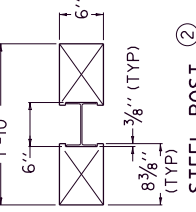
⑪ PLAN VIEW

~ NOTES ~

1. CRASH CUSHION TYPE IX SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH AND INCLUDES TERMINAL SECTIONS NO. 2, POST, RAIL ELEMENTS, SPACER TUBE, OBJECT MARKER TYPE 1, HARDWARE, AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION AS DETAILED.
2. POSTS AND OFFSET BLOCKS MAY BE WOOD OR STEEL POSTS AND WOOD OR COMPOSITE OFFSET BLOCKS.
3. OBJECT MARKER TYPE 1, (SEE CURRENT MUTCD MANUAL FOR DETAILS) CENTER HORIZ. AND VERT.
4. SEE CUR. STD. DWG. RBE-070 FOR DETAILS OF CRASH CUSHION BARRIER END.
5. POST P1 THROUGH P7 ARE SPACED 6'-3" ON CENTER.
6. GUARDRAIL NOT REQUIRED TO BE ATTACHED TO POST AT THESE LOCATIONS.
7. CRASH CUSHION TYPE IX IS A PATENTED (ONE SOURCE) PRODUCT MANUFACTURED BY TRINITY INDUSTRIES, INC. OF DALLAS TX.
8. BACK-UP PLATES REQUIRED AT THESE POSTS.
9. THE MANUFACTURER SHALL FURNISH TWO (2) SETS OF SHOP PLANS TO THE CONTRACTOR WITH EACH INSTALLATION.
10. FOR NON-PAVEMENT APPLICATIONS SEE ROADWAY PLANS FOR GRADING DETAILS.
11. SEE RBE-070 FOR ALTERNATE END DEPENDENT ON TRAFFIC DIRECTION. BID ITEM AND UNIT TO BID EACH



SECTION A-A



STEEL POST (2)

(WOOD OFFSET OR COMPOSITE OFFSET BLOCKS)

WOOD POST (2)

WOOD OFFSET BLOCKS

USE WITH CUR. STD. DWG. RBE-070

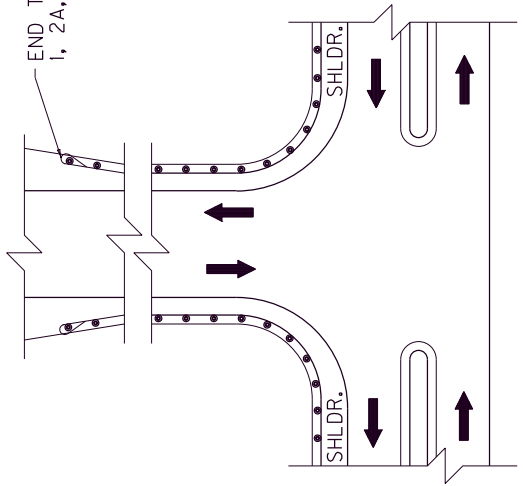
KENTUCKY DEPARTMENT OF HIGHWAYS
CRASH CUSHION TYPE IX
SUBMITTED: <i>[Signature]</i> DIRECTOR DIVISION OF DESIGN
DATE: 11-17-17
022

COUNTY OF	ITEM NO.	SHEET NO.
HENRY	5-20002	

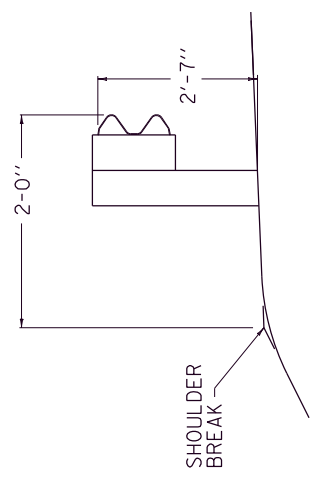
~ NOTES ~

1. FOR END TREATMENT TYPE 4A USE CUR. STD. DWG. RBR-035 FOR OFFSETS.
2. THE MINIMUM LENGTH OF GUARDRAIL, INCLUDING THE END TREATMENT, PRECEDING A FIXED OBJECT IS 200 FEET; (LENGTH MAY BE REDUCED SHOULD FIELD CONDITIONS WARRANT).

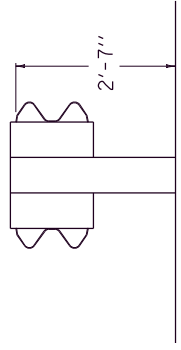
END TREATMENT (TYPES 1, 2A, 3, 4A, OR 7 AS REQUIRED)



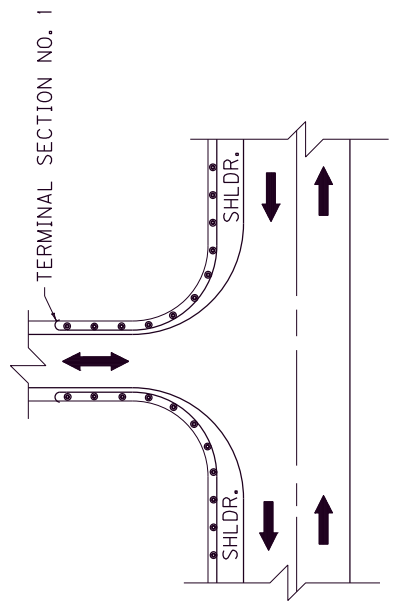
APPROACH ROADS



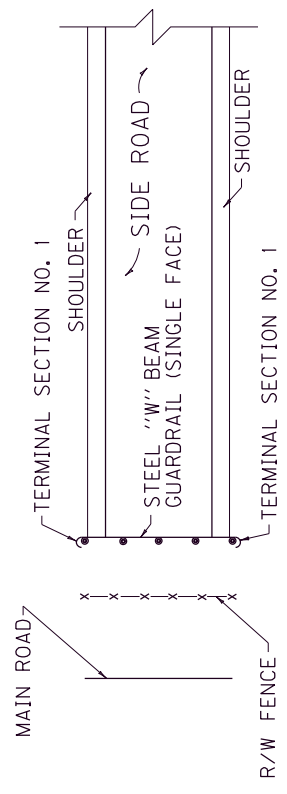
NORMAL GUARDRAIL INSTALLATION



TYPICAL DOUBLE FACE GUARDRAIL INSTALLATION



ENTRANCES



GUARDRAIL USED AS A BARRICADE

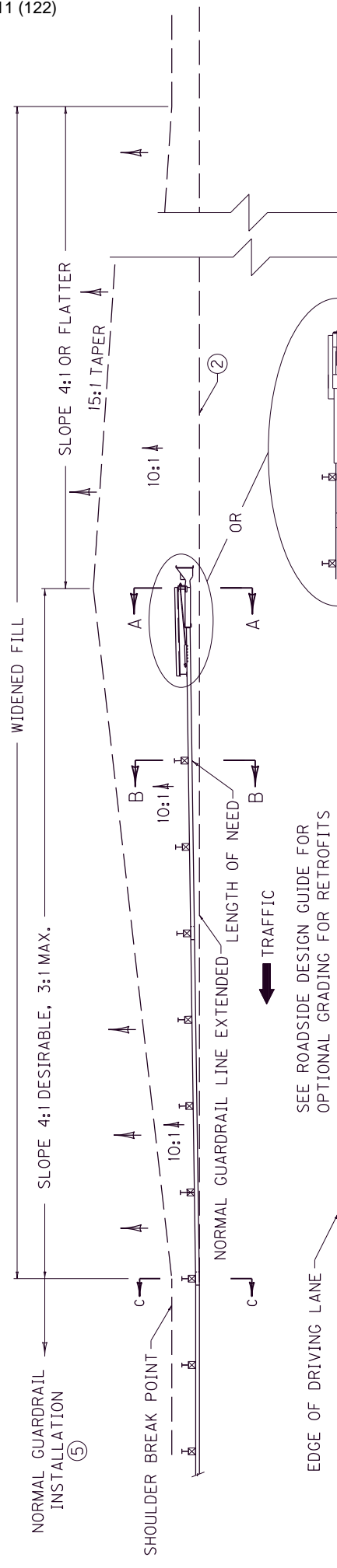
USE WITH CUR. STD. DWG.  
 RBI-002, RBR-035

KENTUCKY  
 DEPARTMENT OF HIGHWAYS

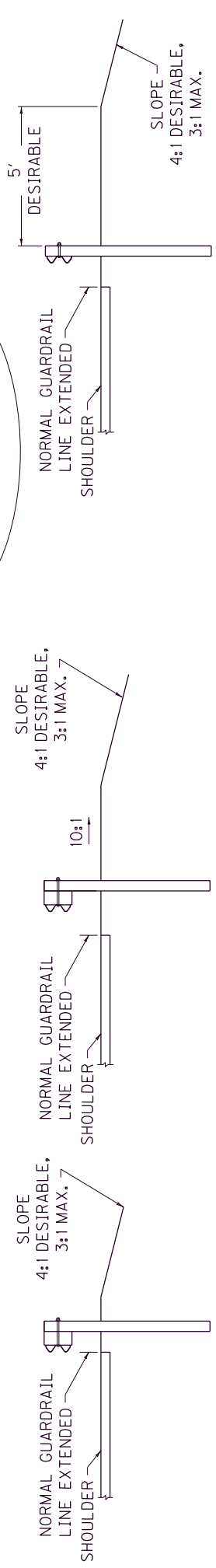
TYPICAL GUARDRAIL  
 INSTALLATIONS

SUBMITTED: *Richard S. Gable*  
 DIRECTOR DIVISION OF DESIGN  
 11-17-17  
 DATE

COUNTY OF	ITEM NO.	SHEET NO.
HENRY	5-20002	



SEE ROADSIDE DESIGN GUIDE FOR  
 OPTIONAL GRADING FOR RETROFITS



SECTION C-C

SECTION B-B

SECTION A-A



TRAFFIC

~ NOTES ~

BID ITEMS AND UNIT TO BID:  
 GUARDRAIL END TREATMENT TYPE 1 EACH  
 ROADWAY OR BORROW EXCAVATION, CUYD  
 OR EMBANKMENT IN PLACE

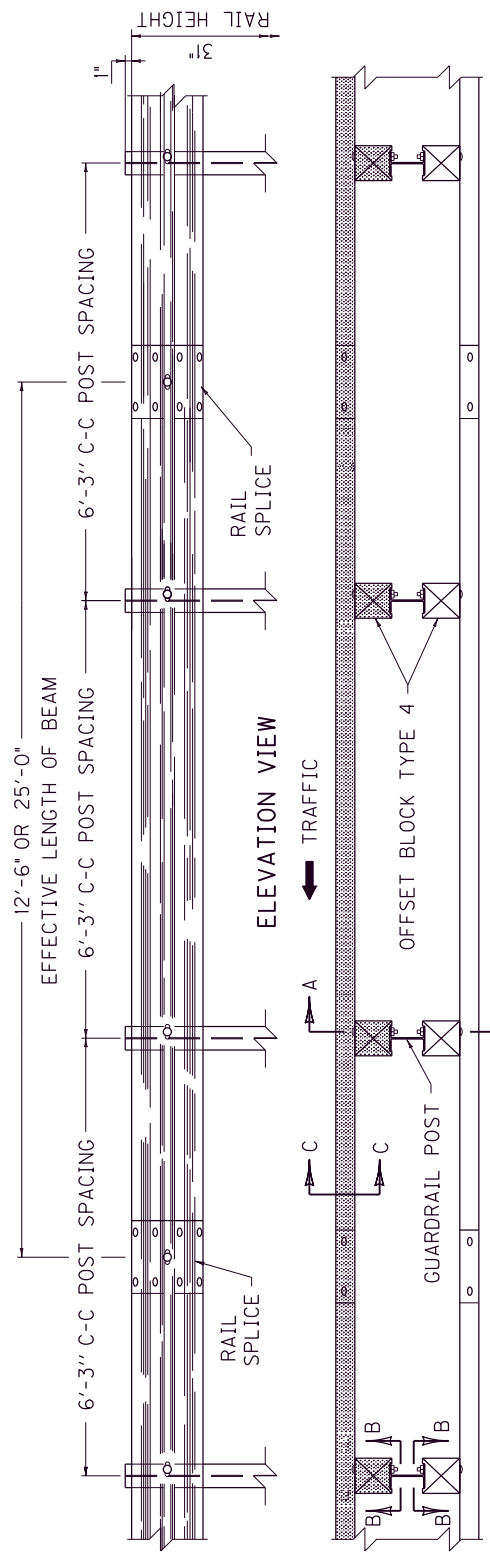
1. THE MINIMUM LENGTH OF GUARDRAIL, INCLUDING THE END TREATMENT, PRECEDING A FIXED OBJECT IS 200 FEET (LENGTH MAY BE REDUCED SHOULD FIELD CONDITIONS WARRANT).
2. GUARDRAIL EXTRUDER EDGE CLOSEST TO TRAFFIC SHALL BE PLACED ON NORMAL GUARDRAIL LINE EXTENDED.
3. END TREATMENT TYPE 1 MAY BE ATTACHED TO CURVED GUARDRAIL PROVIDED CURVE IS A 550' RADIUS OR MORE. END TREATMENT TYPE 1 SHALL BE INSTALLED ON A STRAIGHT LINE TAPER WITHIN THE PAY LIMITS.
4. INTENDED USE: FILLS WITH ADEQUATE VEHICLE RECOVERY ZONE BEHIND GUARDRAIL.
5. FOR MAINTENANCE AND REPAIR PROJECTS, USE "GUARDRAIL SYSTEM TRANSITION "SEPIA 33" TO TRANSITION BACK TO 27" OR 29" GUARDRAIL HEIGHT, IF ONLY THE TERMINAL IS PROPOSED TO BE REPLACED.

USE WITH CUR. STD. DWG.  
 RBR-020

**KENTUCKY**  
**DEPARTMENT OF HIGHWAYS**  
 INSTALLATION OF  
 GUARDRAIL  
 END TREATMENT  
 TYPE 1

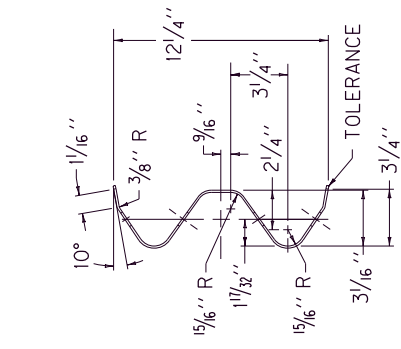
SUBMITTED *[Signature]*  
 DIRECTOR DIVISION OF DESIGN  
 11-17-17  
 DATE

COUNTY OF	ITEM NO.	SHEET NO.
HENRY	5-20002	

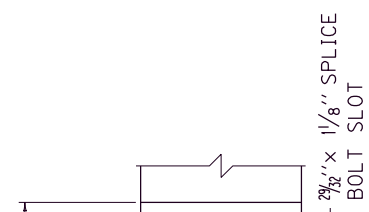


NOTES ~

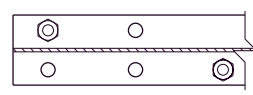
- BID ITEM AND UNIT TO BID  
GUARDRAIL-STEEL W BEAM-S FACE LF  
OR  
GUARDRAIL-STEEL W BEAM-D FACE LF
- DIMENSIONAL TOLERANCES NOT SHOWN OR IMPLIED ARE INTENDED TO BE THOSE CONSISTENT WITH THE PROPER FUNCTIONING OF THE PART, INCLUDING ITS APPEARANCE AND ACCEPTED MANUFACTURING PRACTICES.
  - THE RAIL ELEMENT SHALL COMPLY WITH AASHTO M-180 -CLASS A, TYPE II.
  - ALL LAPS SHALL BE PLACED IN THE DIRECTION OF TRAFFIC FLOW.
  - TOLERANCE + 1/4", -1/4"
  - 8-5/8" x 1/4" LONG BUTTON HEAD BOLTS AND HEX HEAD RECESS NUTS REQUIRED FOR EACH RAIL SPLICE.
  - LENGTH EQUALS POST AND BLOCK WIDTH PLUS 2" FOR BOLT OR 2/4" FOR THREADED ROD.
  - GALVANIZED STEEL 100 COMMON COATED NAIL (DRIVE NAIL AT THE TOP OR BOTTOM CENTER OF BLOCK AND POST AFTER BOLT IS INSTALLED).
  - 5/8" x 6" STEEL THREADED ROD AND TWO (2) HEX HEAD NUTS OR 5/8" x 6" BUTTON OR HEX HEAD BOLT AND HEX HEAD NUT.
  - 5/8" x 8" BUTTON HEAD BOLT, HEX HEAD RECESS NUT AND ONE 5/8" ROUND WASHER (TYP.). BOLT SHALL HAVE A MINIMUM THREAD LENGTH OF 2".
  - REQUIRED FOR DOUBLE RAIL
  - BOTH 12'-6" AND 25' LENGTHS OF "W" BEAM GUARDRAIL SECTIONS WILL BE PERMITTED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.



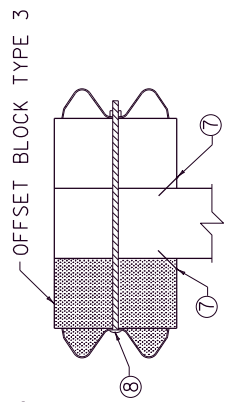
SECTION C-C  
(RAIL CORRUGATED,  
SHEET STEEL BEAM)



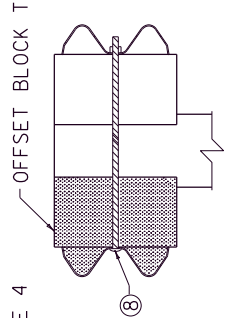
RAIL SPLICE ⑤



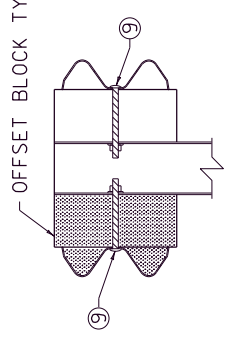
SECTION B-B



SECTION A-A  
DOUBLE FACE RAIL WITH  
TIMBER POST



SECTION A-A  
DOUBLE FACE RAIL WITH  
ROUND TIMBER POST



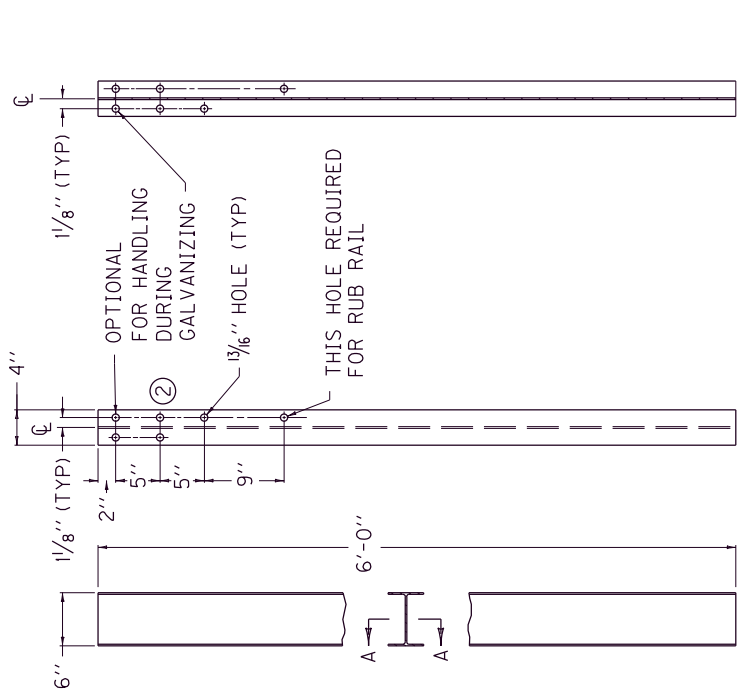
SECTION A-A  
DOUBLE FACE RAIL WITH  
STEEL POST (W6x9)  
(TIMBER OR APPROVED  
COMPOSITE OFFSET BLOCK)

KENTUCKY DEPARTMENT OF HIGHWAYS	
STEEL BEAM GUARDRAIL ( "W" BEAM )	
SUBMITTED:	DATE
<i>William S. Stiles</i> DIRECTOR, DIVISION OF DESIGN	11-17-17
	027



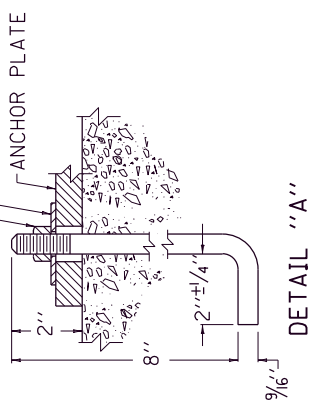
COUNTY OF	ITEM NO.	SHEET NO.
HENRY	5-20002	

- ~ NOTES ~
- ① W6 X 8.5 IS AN ACCEPTABLE ALTERNATE.
  - ② THESE HOLES ARE REQUIRED FOR ATTACHING RAIL.
  - ③ TIMBER OR COMPOSITE BLOCKOUTS MAY BE USED WITH STEEL POST.

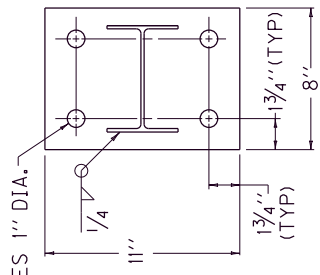


SECTION A-A

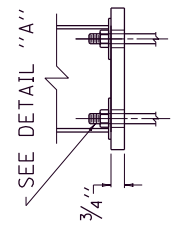
~ W6 X 9.0 STEEL POST ① ~



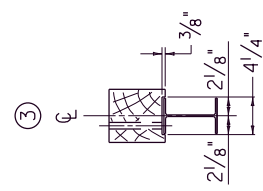
DETAIL "A"



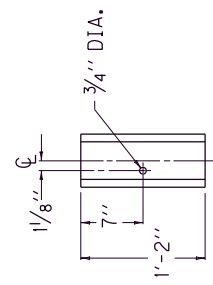
PLAN VIEW



SIDE VIEW  
ANCHOR PLATE



PLAN VIEW



REAR ELEVATION

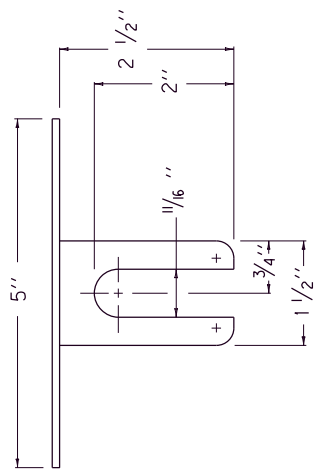
OFFSET BLOCK TYPE 4  
6" X 8" (Nominal Size)  
(TIMBER OR APPROVED COMPOSITE)  
(FOR USE WITH STEEL POST ONLY)

KENTUCKY DEPARTMENT OF HIGHWAYS	STEEL GUARDRAIL POSTS	DATE 01-09-18
SUBMITTED <i>William S. Sheldahl</i> DIRECTOR DIVISION OF DESIGN		0287

COUNTY OF	ITEM NO.	SHEET NO.
HENRY	5-20002	

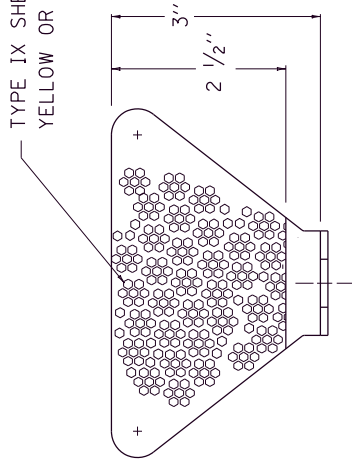
~ NOTES ~

- BID ITEMS AND UNIT TO BID  
 DELINEATOR FOR GUARDRAIL B/W EACH  
 DELINEATOR FOR GUARDRAIL M/W EACH  
 DELINEATOR FOR GUARDRAIL M/Y EACH
1. DELINEATORS SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE EACH AND SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR ONE COMPLETE INSTALLATION.
  2. DELINEATOR SHAPE AND DIMENSIONS ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY.
  3. TYPES OF DELINEATORS PERMITTED SHALL BE FROM THE LIST OF APPROVED MATERIALS.
  4. GUARDRAIL DELINEATORS SHALL BE REQUIRED ON ALL GUARDRAIL.
  5. DELINEATORS SHALL NOT BE INSTALLED WITHIN THE PAY LIMITS OF THE END TREATMENT.
  6. DELINEATORS SHALL BE MANUFACTURED FROM 12 GA. GALVANIZED STEEL.
  7. DIMENSIONS SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MANUFACTURER'S TOLERANCES.
  8. WHEN CONCRETE BARRIERS EXTEND ACROSS BRIDGE STRUCTURES IN LIEU OF STEEL BEAM GUARDRAIL, DELINEATORS SHALL BE INSTALLED AT SAME VERTICAL ALIGNMENT AS ON THE GUARDRAIL, AND DELINEATORS SHALL COMPLY WITH CURRENT STANDARD DRAWING RBM-020.
  9. DELINEATORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



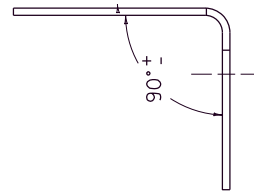
PLAN VIEW

TYPE IX SHEETING,  
YELLOW OR WHITE

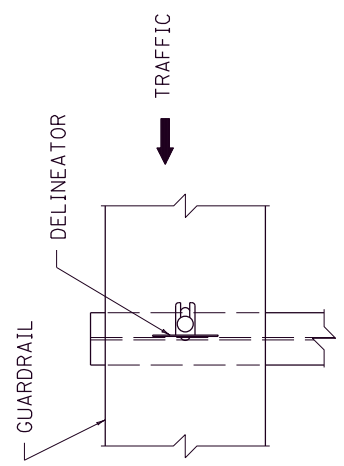


FRONT VIEW

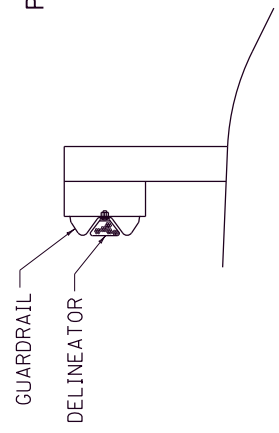
SIDE VIEW



DIMENSIONS SHOWN ARE FOR ONE VERSION OF A WEB-MOUNTED GUARDRAIL DELINEATOR. DELINEATORS WITH ALTERNATE DIMENSIONS MAY BE CONSIDERED FOR INCLUSION ON THE APPROVED PRODUCTS LIST.

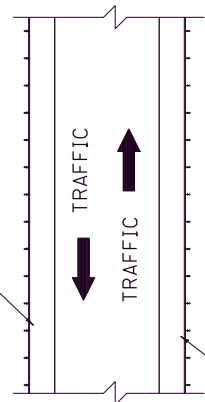


FRONT VIEW

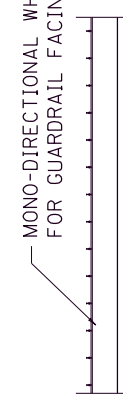


SIDE VIEW

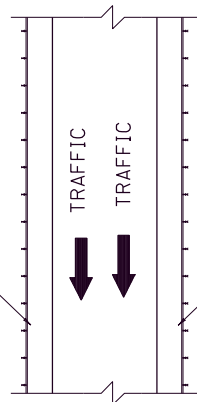
BI-DIRECTIONAL WHITE DELINEATOR  
FOR GUARDRAIL FACING TRAFFIC



BI-DIRECTIONAL WHITE DELINEATOR  
FOR GUARDRAIL FACING TRAFFIC



MONO-DIRECTIONAL WHITE DELINEATOR  
FOR GUARDRAIL FACING TRAFFIC



MONO-DIRECTIONAL YELLOW DELINEATOR  
FOR GUARDRAIL FACING TRAFFIC

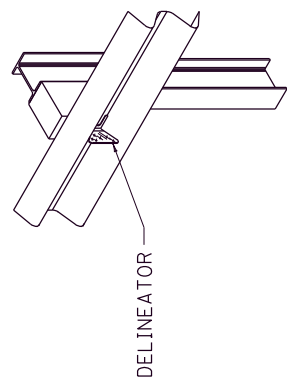


PLACEMENT OF DELINEATORS  
FOR GUARDRAIL

APPROXIMATE DELINEATOR SPACING

TANGENT	100'
CURVE	50'

SPACING SHOULD BE ADJUSTED IN CURVES SO THAT SEVERAL DELINEATORS ARE ALWAYS SIMULTANEOUSLY VISIBLE TO THE ROAD USER.



ISOMETRIC VIEW

USE WITH CUR. STD. DWGS.  
RBM-020, RBR-060

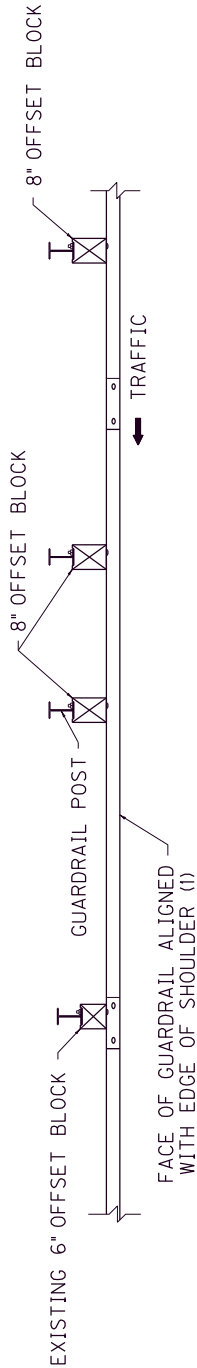
KENTUCKY  
DEPARTMENT OF HIGHWAYS

DELINEATORS  
FOR GUARDRAIL

DATE: 11-17-17  
SUBMITTED: *William S. Shalick*  
DIRECTOR DIVISION OF DESIGN

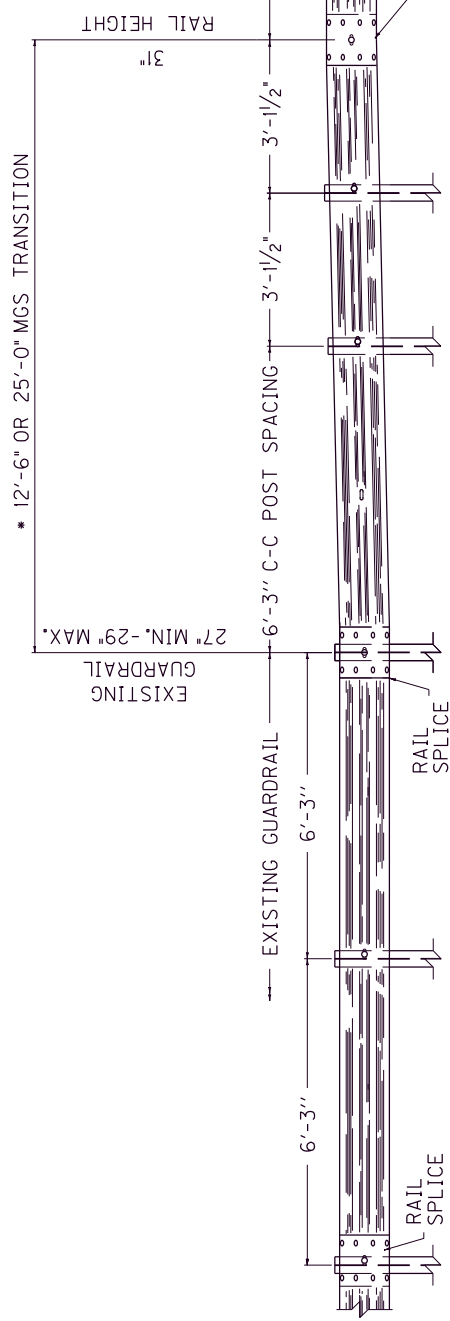
032

COUNTY OF	ITEM NO.	SHEET NO.
HENRY	5-20002	



PLAN VIEW

\* 12'-6" TRANSITION FROM 29" TO 31" SHOWN,  
25'-0" REQUIRED FOR 27" TO 31" TRANSITION.



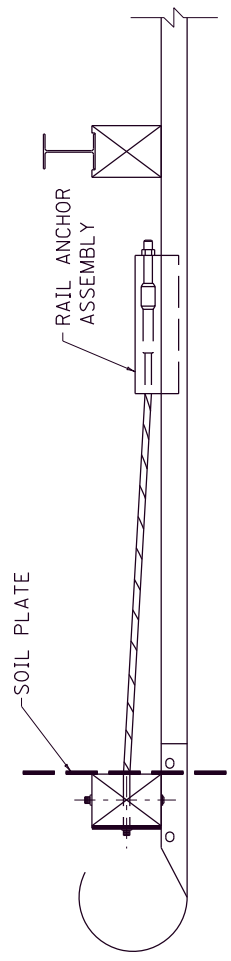
ELEVATION VIEW

~ NOTES ~

- 1) WHERE POST OFFSET IS CONSTRAINED, AND WHEN THE EXISTING SHOULDER IS WIDER THAN 4 FEET, THE EXISTING SHOULDER MAY BE REDUCED UP TO 2 INCHES TO ACCOMMODATE THE 8 INCH BLOCKS OF THE MGS GUARDRAIL. WHERE SITE CONSTRAINTS PROHIBIT THE POST FROM BEING PLACED AT LEAST TWO FEET IN FRONT OF THE SLOPE BREAK POINT. USE 7 FOOT POSTS.
- 2) MGS TRANSITION FROM EXISTING GUARDRAIL SHALL BE COMPLETED OUTSIDE THE 50 FEET MGS END TERMINAL LIMITS.

KENTUCKY DEPARTMENT OF HIGHWAYS	SUBMITTED: <i>William S. Shuler</i> DIRECTOR DIVISION OF DESIGN	11-17-17 DATE	033
	GUARDRAIL SYSTEM TRANSITION		

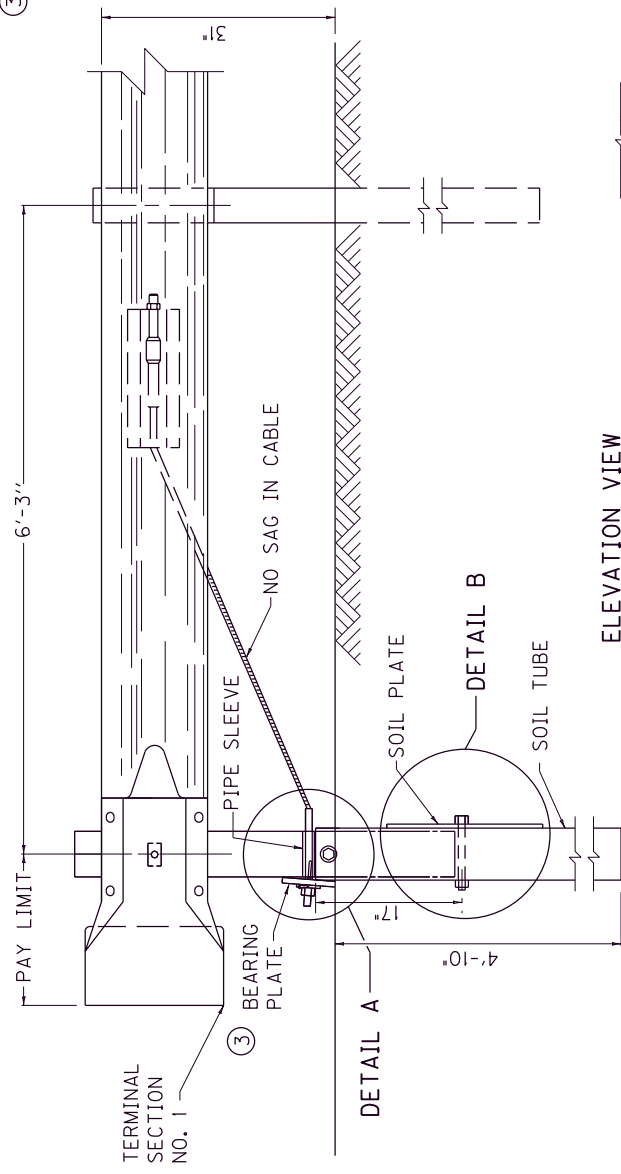
COUNTY OF	ITEM NO.	SHEET NO.
HENRY	5-20002	



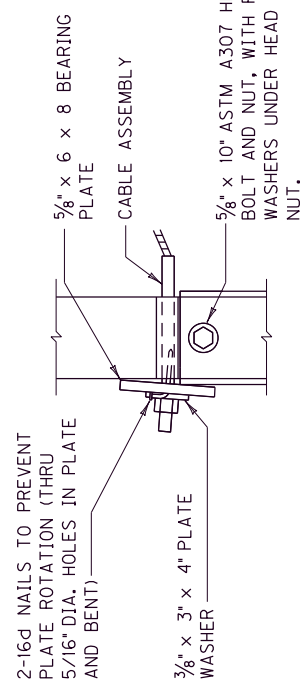
PLAN VIEW

~ NOTES ~

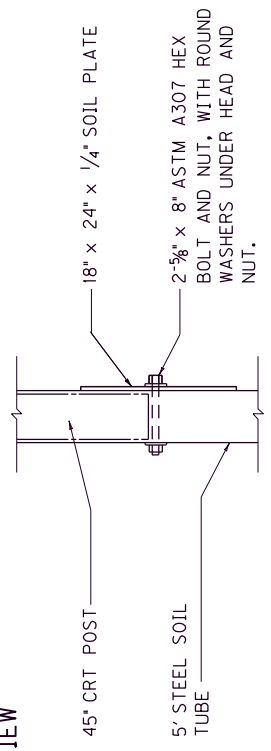
- BID ITEM AND UNIT TO BID GUARDRAIL END TREATMENT TYPE 2A EACH GUARDRAIL END TREATMENT TYPE 2A SHALL BE TO THE PAY LIMITS AS DETAILED. THE CONTRACT UNIT BID IS EACH AND SHALL INCLUDE A TERMINAL SECTION NO. 1, RAIL ANCHOR ASSEMBLY, CABLE ANCHOR ASSEMBLY, SOIL TUBE, SOIL PLATE AND ALL OTHER INCIDENTALS NECESSARY FOR A COMPLETE INSTALLATION AS DETAILED.
- IN THE EVENT SOLID ROCK IS ENCOUNTERED, THE SOIL TUBE MAY BE SHORTENED, PROVIDED IT EXTENDS INTO THE SOLID GROUND A MINIMUM OF 3 FEET.
- INSTALL BEARING PLATE SO THAT THE "V" OPENING IS AT THE TOP.



ELEVATION VIEW



DETAIL A



DETAIL B

USE WITH CUR. STD. DWGS.  
RBI-001, RBI-002, RBI-003  
RBR-010

KENTUCKY DEPARTMENT OF HIGHWAYS	GUARDRAIL END TREATMENT TYPE 2A
	SUBMITTED: <i>William P. Ball</i> DIRECTOR DIVISION OF DESIGN DATE: 3-06-18 038

**TRAFFIC CONTROL PLAN  
HENRY COUNTY  
I-71  
NHPP IM 0711 (122)  
FD52 052 0071 024-029  
Item No. 5-20002**

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**THIS PROJECT IS A FULLY  
CONTROLLED ACCESS HIGHWAY**

**TRAFFIC CONTROL GENERAL**

Except as provided herein, "Maintain and Control Traffic" shall be in accordance with the 2012 Standard Specifications and the Standard Drawings, current editions and the Manual on Uniform Traffic Control Devices (MUTCD), current Edition. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic". All lane closures used on the Project will be in compliance with the appropriate Standard Drawings. Do NOT use cones for lane closures or shoulder closures.

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

Reduce the speed limit in work areas to 55 miles per hour (35 miles per hour for ramps) and establish double fines for work zone speeding violations. The extent of these areas within the project limits will be restricted to the proximity of actual work areas as determined by the Engineer. Notify the Engineer a minimum of 12 hours prior to using the double fine signs. At the beginning of the work zone, the "WARNING FINE DOUBLED IN WORK ZONE" signs will be dual mounted. At the end of the work zone, the "END DOUBLE FINE" signs will be dual mounted as well. Remove or cover the signs when the highway work zone does not have workers present for more than a two-hour period of time. Payment for the signs will be at the unit bid price for signs erected. Any relocation or covering of the signs will be incidental to "Maintain and Control Traffic", lump sum.

Night work will be allowed on this project. Obtain approval from the Engineer for the method of lighting prior to its use.

## **PROJECT PHASING & CONSTRUCTION PROCEDURES**

No lane closures will be allowed on the project during the following days unless otherwise approved by the Engineer:

Thanksgiving	Nov 22 <sup>th</sup> – Nov 25 <sup>th</sup> , 2018
Christmas	Dec 24 <sup>th</sup> – Dec 25 <sup>th</sup> , 2018
New Years	Dec 31 <sup>st</sup> , 2018 – Jan 1 <sup>st</sup> , 2019
Oaks & KY Derby	May 3 <sup>rd</sup> , 2019 – May 4 <sup>th</sup> , 2019
Memorial Day Weekend	May 24 <sup>th</sup> , 2019 – May 27 <sup>th</sup> , 2019
Independence Day Weekend	July 4 <sup>th</sup> , 2019 – July 7 <sup>th</sup> , 2019
KY Speedway Race Weekend	July 11, 2019 – July 14, 2019
Labor Day Weekend	August 30 <sup>th</sup> , 2019 – September 2 <sup>nd</sup> , 2019

## **ALLOWABLE TIMES OF REDUCTION OF TRAFFIC TO ONE LANE**

Traffic shall not be reduced to one lane except during times listed herein and restricting all lane closures for holidays listed above.

Times that traffic may be reduced to one lane will be limited to the following each week except as prohibited by holiday restrictions:

Sunday 7:00 pm to Monday 6:00 am  
Monday 7:00 pm to Tuesday 6:00 am  
Tuesday 7:00 pm to Wednesday 6:00 am  
Wednesday 7:00 pm to Thursday 6:00 am  
Thursday 7:00 pm to Friday 6:00 am  
Friday 7:00 pm to Saturday 9:00 am  
Saturday 7:00 pm to Sunday 9:00 am

Reduction of traffic to one lane is strictly prohibited during times outside the allowable ranges listed. A Liquidated Damage of \$2,500 per hour will be assessed for the first hour or portion of an hour traffic is reduced to one lane outside the allowable hours and days and for any non-approved activity. A Liquidated Damage of \$5,000 per hour will be assessed for the second hour or portion of the second hour, and every subsequent hour or portion of an hour that traffic is reduced to one lane outside the allowable hours and days and for any non-approved activity. This agreed upon Liquidated Damage will be assessed concurrently with and in addition to any other applicable damages assessed on the project.

## **TRAFFIC PHASING OVERVIEW**

Access to all ramps at all interchanges on the project shall be maintained at all times unless otherwise directed by the Engineer. All diversions to access ramps in areas of lane closures shall be approved by the Engineer prior to implementing each particular lane closure.

The contractor must notify the Engineer at least seven (7) days prior to the beginning of each construction phase in either direction.

A minimum of two 12' lanes will be maintained on mainline at all times during construction except as specifically outlined herein. A minimum lane width of 10' will be maintained on ramps. Lane widths may be temporarily restricted to lesser widths in the immediate vicinity of the paving operations provided that drums are moved as the paving operation progresses restoring minimum lane widths as soon as practical.

Items of work that can safely be performed behind a shoulder closure may be performed at any time without restriction. Activities requiring workers or equipment to be present immediately adjacent the mainline should be performed with a lane closure in place. Items of work requiring lane closures will be performed within the allowable times listed and the work must be completed and two lanes of traffic per direction restored before the specified time. The contractor will be required to manage his production rates and schedule to ensure traffic is restored to two lanes at the end of each production shift and prior to the time specified. Reduction of traffic to one lane will be limited to the hours listed daily above in order to reduce traffic delays.

## **SHOULDER PREPARATION AND RESTORATION**

The clear lane width will be 12 feet; however, make provisions for the passage of wide loads up to 16'. Use a lane closure all times when work is performed in the lane or adjacent shoulder. Shoulders used as temporary roadways will be inspected by the Engineer and if deemed necessary by the Engineer, repaired with asphalt mixture for leveling & wedging as directed prior to opening to traffic. Perform any maintenance of the shoulder as deemed necessary by the Engineer in order to maintain traffic. Remove failed materials and perform additional patching as directed by the Engineer prior to using the shoulder as a travel lane. Patch and remove any foreign debris on the shoulders as directed by the Engineer. Remove existing striping by water blasting.

### **Project Phasing:**

#### **Phase I – Edge Drain, Roadside Repairs, Ditching, Erosion Control, Guardrail**

Utilizing shoulder closures when feasible, and using alternating lane closures, during allowable times of lane closure, complete edge drain inspections and repairs, various items of work on the roadsides including ditching, channel lining installation, drainage repairs, etc.

## **Phase II – Pavement Repairs, Base Failure Repairs, Bridge Clearance Revision**

### **Phase IIA**

Reduce traffic to one lane during times of allowable lane closure, closing the inside lane, perform all items of work required by the Pavement Repair Detail or the Base Failure Repair Detail. Construct asphalt base replacement items, half width, on ramps where required on the left side of the ramps. Restore traffic to two lanes prior to the time required herein.

### **Phase IIB**

Reduce traffic to one lane during times of allowable lane closure, closing the outside lane, perform all items of work required by the Pavement Repair Detail or the Base Failure Repair Detail. Construct asphalt base replacement items, half width, on ramps where required on the right side of the ramps. Restore traffic to two lanes prior to the time required herein.

### **Bridge Clearance Revision**

Due to the reduction in elevation, which will result in uneven pavement between Phase IIA and Phase IIB, all operations for each bridge clearance revision must be completed in one work shift during an allowable time of lane closure. Complete mainline milling and inlaying of the fiber reinforced asphalt base in one lane, install a temporary wedge of leveling and wedging to ramp traffic from the existing surface elevation to the asphalt base elevation per the detail. Mill the adjacent paved shoulder to match the newly installed asphalt base in order to provide positive drainage and to eliminate an uneven lane between the mainline and shoulder. After completion of work in the inside lane, switch traffic onto the inside lane and complete similar operations in the outside lanes.

Traffic will be required to run on the asphalt base in the bridge clearance revision and milled surface conditions will exist on shoulders until final surfacing operations.

## **Phase III – Final Asphalt Surfacing.**

### **Phase IIIA**

Reduce traffic to one lane during times of allowable lane closure, closing the inside lane, mill for and install final asphalt surface layer. Mill and place final asphalt surface layer, half width, on ramps where required on the left side of the ramps. Restore traffic to two lanes prior to the time required herein.

### **Phase IIIB**

Reduce traffic to one lane during times of allowable lane closure, closing the outside lane, mill for and install final asphalt surface layer. Mill and place final asphalt surface



layer, half width, on ramps where required on the right side of the ramps. Restore traffic to two lanes prior to the time required herein.

### **Phase V – Final Pavement Markings and Final Cleanup**

Utilizing shoulder closures when feasible, and using alternating lane closures, during allowable times of lane closure, complete any remaining items of work such as but not limited to final pavement markings and final cleanup.

**NOTE – WIDE LOADS:** Make provisions for wide loads up to 16 feet wide to pass when necessary. No wide load detour will be established.

### **LANE CLOSURES**

Contrary to Section 112.04.17, Lane closures, whether long term or short term, will not be measured for payment and will be incidental to the bid item “Maintain and Control Traffic”

Lane closures must be installed on both inside lanes while work is being performed in the median and the work zone is not separated from traffic by a median barrier.

Due to lane closure time restrictions there are no anticipated lane closures of long duration. Temporary striping for lane closures will not be required in accordance with the Standard Drawings.

### **MAINLINE LANE WIDTHS**

Maintain 12’ lane widths at all times except in local areas where the milling and paving operations are active. Maintain 10’ lane widths for short durations in the vicinity of the paving operations and restore 12’ lanes as soon as practical after milling and/or paving operations are complete in a local area. Ramps widths may be reduced to 10’ and will require shifting traffic partially onto the ramp shoulders.

### **SIGNS**

Additional traffic control signs in addition to normal lane closure signing detailed on the Standard Drawings may be required by the Engineer. Additional signs needed for lane closures may include, but are not limited to, dual mounted LEFT/RIGHT LANE CLOSED 1 MILE, LEFT/RIGHT LANE CLOSED 2 MILE, LEFT/RIGHT LANE CLOSED 3 MILE, SLOWED/STOPPED TRAFFIC AHEAD, KEEP LEFT/RIGHT. Signage for reduced speed limits and double fine work zones will be furnished, relocated, and maintained by the Contractor.

Contrary to section 112, individual signs will be measured only once for payment, regardless of how many times they are set, reset, removed and relocated during the duration of the project. Replacements for damaged signs or signs directed to be replaced by the Engineer due to poor legibility or reflectivity will not be measured for payment.

A quantity of signs has been included for “Roadwork Ahead” signs on entrance ramps, extra double fine signs, keep left/keep right and speed limit signs between interchanges. These are to be paid for only once regardless of how many times they are moved or relocated.

## **FLASHING ARROWS**

Flashing arrows will be paid for once, regardless of how many times they are moved or relocated. The Department **WILL NOT** take possession of the flashing arrows upon completion of the work.

## **PORTABLE CHANGEABLE MESSAGE SIGNS**

Provide portable changeable message signs (PCMS) in advance of and within the project at locations to be determined by the Engineer. If work is in progress concurrently in both directions, or if more than one lane closure is in place in the same direction of travel, provide additional PCMS. Place PCMS one mile in advance of the anticipated queue at each lane closure. As the actual queue lengthens and/or shortens relocate or provide additional PCMS so that traffic has warning of slowed or stopped traffic at least one mile but not more than two miles before reaching the end of the actual queue. The locations designated may vary as the work progresses. The messages required to be provided will be designated by the Engineer. The PCMS will be in operation at all times. In the event of damage or mechanical/electrical failure, the contractor will repair or replace the PCMS immediately. PCMS will be paid for once, no matter how many times they are moved or relocated. The Department **WILL NOT** take possession of the signs upon completion of the work.

## **TRUCK MOUNTED ATTENUATORS**

Furnish and install MUTCD approved truck mounted attenuators (TMA) in advance of work areas when workers are present less than 12 feet from traffic. If there is less than 500 feet between work sites, only a single TMA will be required at a location directed by the Engineer. Locate the TMAs at the individual work sites and move them as the work zone moves within the project limits. All details of the TMA installations shall be approved by the Engineer. TMA will not be measured for payment, but are incidental to "Maintain and Control Traffic," Lump Sum. The Department **WILL NOT** take possession of the TMAs upon completion of the work.

## **PAVEMENT MARKINGS**

Remove or cover the lenses of raised pavement markers that do not conform to the traffic control scheme in use, or as directed by the Engineer. Replace or uncover lenses before a closed lane is reopened to traffic. No direct payment will be made for removing or covering and uncovering the lenses, but will be incidental to "Maintain and Control Traffic," lump sum.

Place temporary and permanent striping in accordance with Section 112 for temporary striping, 713 for Durable Waterborne Striping , and section 714 for Thermoplastic Markings, except that:

1. Temporary and permanent striping will be 6" in width and gore area markings and chevrons will be 12" in width.
2. Edge lines will be required for temporary striping during the lane closures of durations of more than 3 days.
3. Existing, temporary, or permanent striping will be in place before a lane is opened to traffic
4. Place permanent striping on bridge decks and pavement within the project limits.

5. Permanent striping will be Durable Waterborne Markings
6. Striping removal will be performed by water blasting methods only in a non-destructive manner. The Contractor will be required to adjust his operations to ensure no damage results to ultimate pavement due to striping removal efforts.

Should the Contractor change the existing striping pattern, the Contractor is to restripe the roadway back to its original configuration if no work is anticipated for a period of time (i.e. Winter shutdown).

### **PAVEMENT EDGE DROP-OFFS**

Pavement edge drop-offs will be protected by a lane or shoulder closure. Lane closures will be protected with plastic drums, vertical panels, or barricades as shown on the Standard Drawings.

Pavement edges that traffic is not expected to cross, less than 5' from edge of travelled way, except accidentally, shall be treated as follows:

Less than 2" – Protect with a lane closure.

2" to 4" – Protect with a lane closure. Place plastic drums, vertical panels, or barricades every 50 feet. Cones may not be used in place of plastic drums, panels, and barricades at any time.

Greater than 4" – Asphalt Base Mill and Inlay areas – In areas where pavement is to be removed including both pavement repair areas and base failure repair locations, work should be pursued continuously until completion so that traffic is exposed to a greater than 4" drop-off for the minimum amount of time necessary. Completion of the asphalt base is required prior to suspending operations until the next work shift. Barrel spacing should be 20 feet and appropriate lighting should be utilized to illuminate the area during nighttime operations.

### **TRAFFIC COORDINATOR**

Designate an employee to be traffic coordinator. The designated Traffic Coordinator must meet the requirements of section 112.03.12 of the Standard Specifications. The Traffic Coordinator will inspect the project maintenance of traffic once every two hours during the Contractor's operations and at any time a lane closure is in place. The Traffic Coordinator will report all incidents throughout the work zone to the Engineer on the project. The Contractor will furnish the name and telephone number where the Traffic Coordinator can be contacted at all times.

During any period when a lane closure is in place, the Traffic Coordinator will arrange for personnel to be present on the project at all times to inspect the traffic control, maintain the signing and devices, and relocate portable changeable message boards as queue lengths change. The personnel will have access on the project to a radio or telephone to be used in case of emergencies or accidents.

## **COORDINATION OF WORK**

The Contractor is advised that other projects may be in progress within or in the near vicinity of this project. The traffic control of those projects may affect this project and the traffic control of this project may affect those projects. The Contractor will coordinate the work on this project with the work of the other contractors. In case of conflict, the Engineer will determine the relative priority to give to work phasing on the various projects.

## **CONTRACTOR'S AND CONTRACTOR'S EMPLOYEES' VEHICLES**

Do not use or allow employees to use median crossovers at any time except when inside lanes are closed for construction. In all other phases of construction, change vehicular direction of travel only at interchanges.

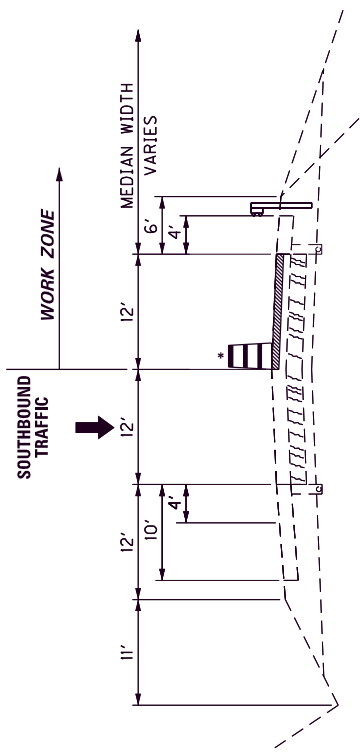
## **LAW ENFORCEMENT OFFICER**

Law enforcement officers will be required to be furnished on the project at any time that traffic is reduced to one lane. The contractor will be required to establish an agreement with a local law enforcement agency to provide an officer and police cruiser to be used to warn traffic of lane closures and stopped traffic ahead. The contractor will be responsible to reimburse the agency of the costs for this service. This requirement is solely for the intent of warning traffic of a potential danger ahead and not for the purpose of issuance of traffic violations. The officer should however have authority to issue citations if necessary and at his discretion. Patrolling for speeding and issuance of double fine citations should be performed by a separate officer and the contractor will not be required to reimburse the agency for that operations.

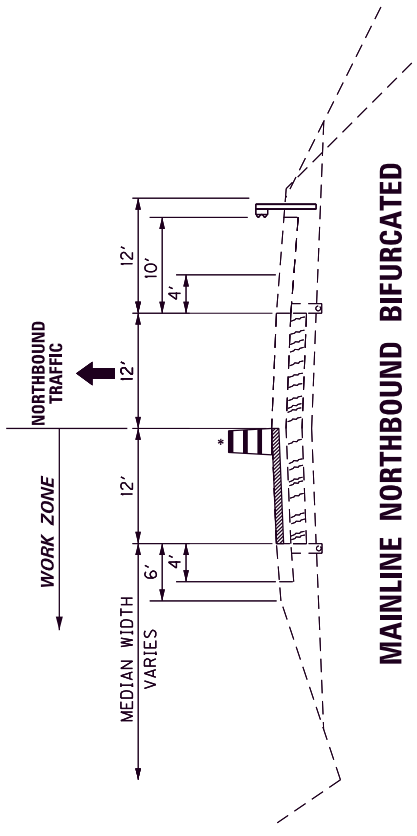
# M.O.T. TYPICAL SECTIONS

## I-71 PHASE IIA

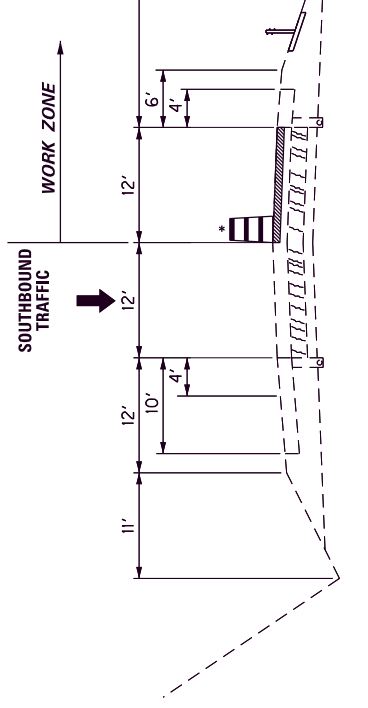
County	Item No.	Sheet
HENRY	5-20002	



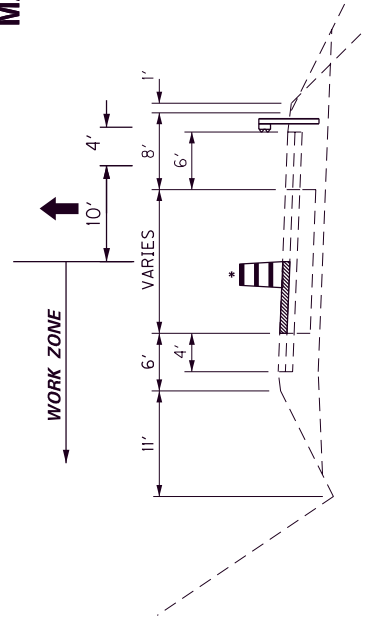
**MAINLINE SOUTHBOUND BIFURCATED**



**MAINLINE NORTHBOUND BIFURCATED**



**MAINLINE NORMAL SECTION**



**EXIT RAMP**

\*  
MOVE DRUM TEMPORARILY WHEN NECESSARY TO ALLOW RAINING EQUIPMENT TO ACCESS. IMMEDIATELY MOVE DRUMS ONTO NEW ASPHALT AS SOON AS PRACTICAL TO RESTORE LANE WIDTHS.

I-71  
MAINTENANCE OF TRAFFIC  
TYPICAL SECTIONS

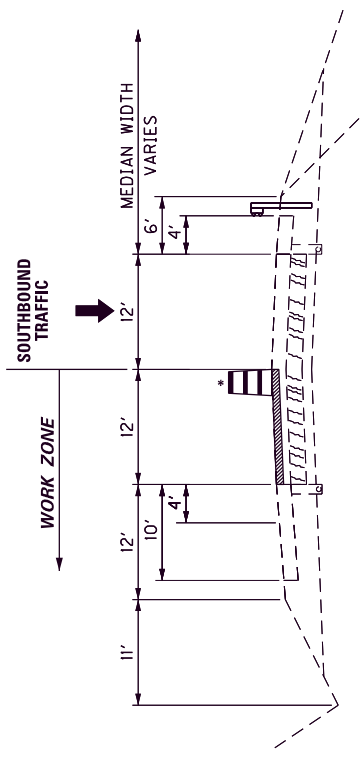
NOT TO SCALE

# M.O.T. TYPICAL SECTIONS

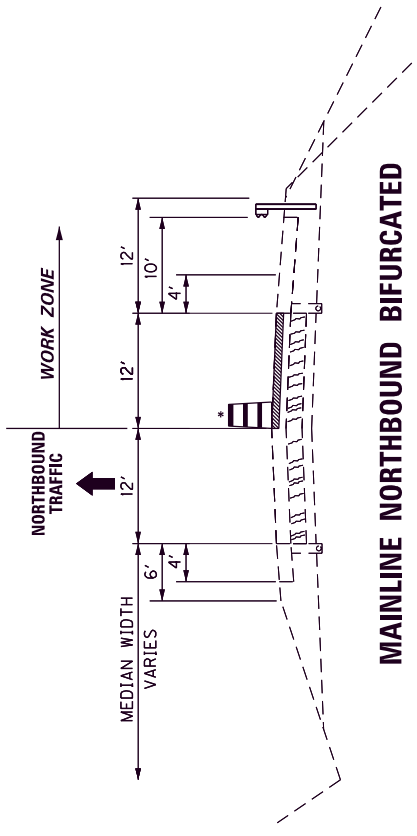
## I-71

### PHASE IIB

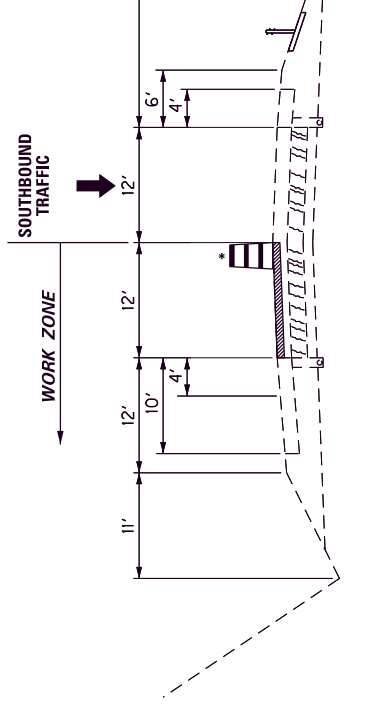
County	Item No.	Sheet
HENRY	5-20002	



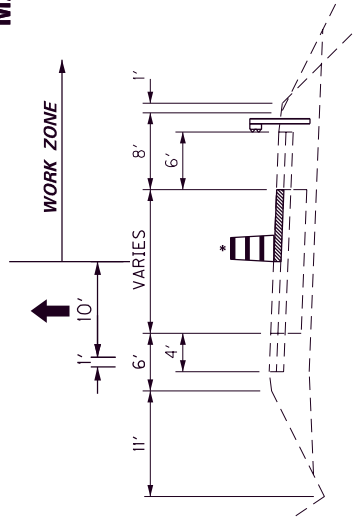
**MAINLINE SOUTHBOUND BIFURCATED**



**MAINLINE NORTHBOUND BIFURCATED**



**MAINLINE NORMAL SECTION**



**EXIT RAMP**

\* MOVE DRUM TEMPORARILY WHEN NECESSARY TO ALLOW PAVING EQUIPMENT TO PASS. IMMEDIATELY MOVE DRUMS ONTO NEW ASPHALT AS SOON AS PRACTICAL TO RESTORE LANE WIDTHS.

I-71  
MAINTENANCE OF TRAFFIC  
TYPICAL SECTIONS

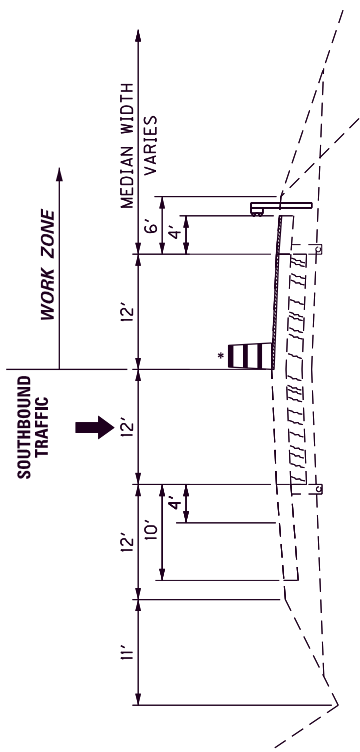
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# M.O.T. TYPICAL SECTIONS

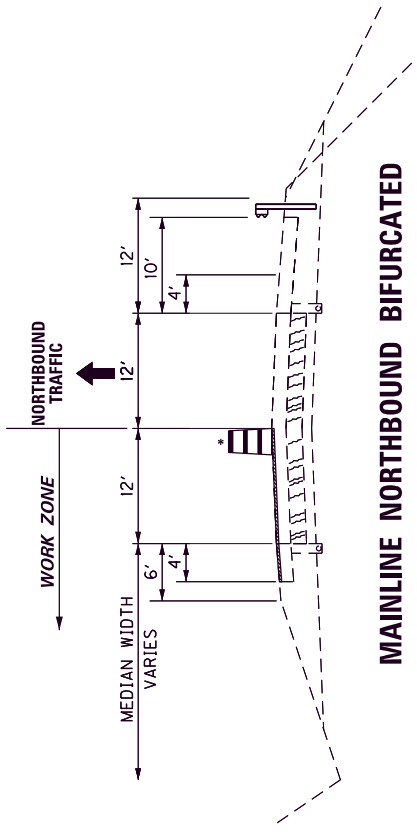
## I-71

### PHASE IIIA

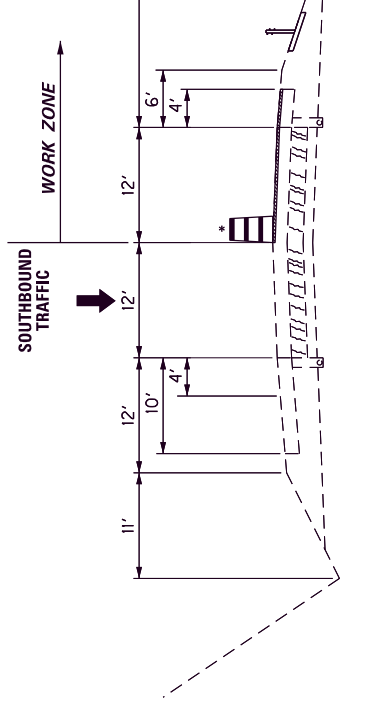
County	Item No.	Sheet
HENRY	5-20002	



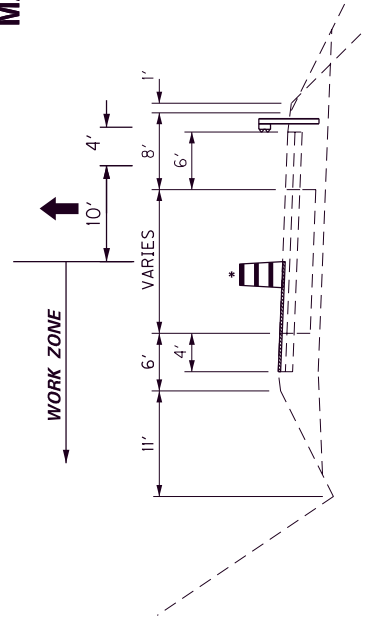
**MAINLINE SOUTHBOUND BIFURCATED**



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**MAINLINE NORMAL SECTION**



**EXIT RAMP**

\* MOVE DRUM TEMPORARILY WHEN NECESSARY TO ALLOW RAINING EQUIPMENT TO PASS. IMMEDIATELY MOVE DRUMS ONTO NEW ASPHALT AS SOON AS PRACTICAL TO RESTORE LANE WIDTHS.

I-71  
MAINTENANCE OF TRAFFIC  
TYPICAL SECTIONS

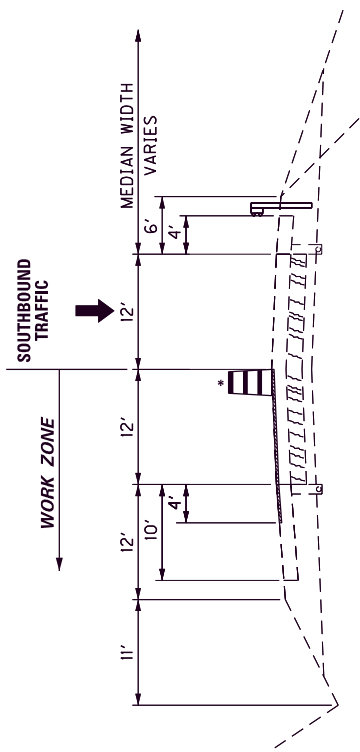
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# M.O.T. TYPICAL SECTIONS

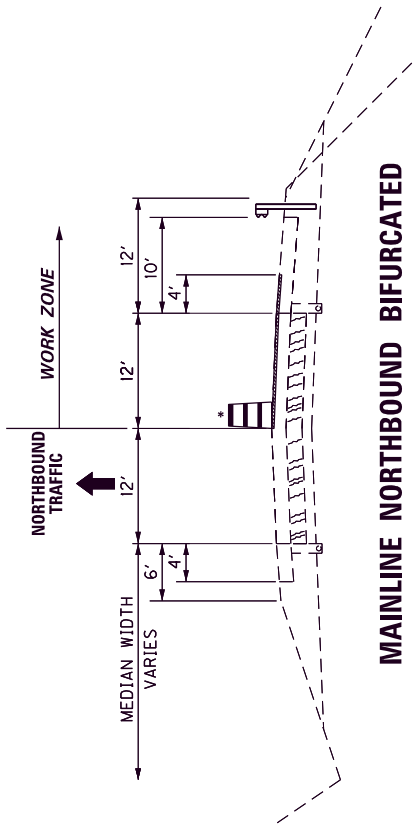
## I-71

### PHASE IIIB

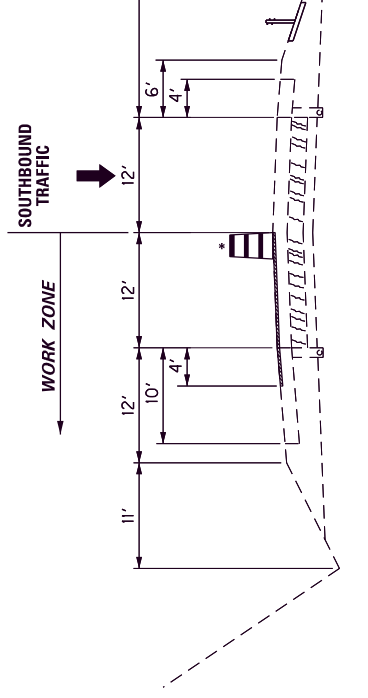
County	Item No.	Sheet
HENRY	5-20002	



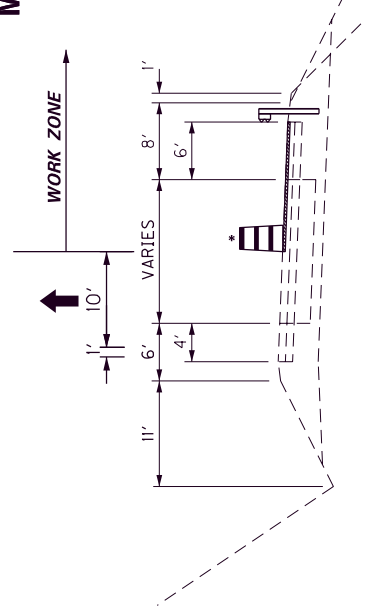
**MAINLINE SOUTHBOUND BIFURCATED**



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I-71

MAINTENANCE OF TRAFFIC  
TYPICAL SECTIONS

NOT TO SCALE



**I-71  
Henry County  
NHPPIM 0711 (122)  
FD52 052 0071 024-029  
Item No. 5-20002  
MP 24.679 TO MP 28.112**

**THIS PROJECT IS A FULLY  
CONTROLLED ACCESS HIGHWAY**

**I. DESCRIPTION**

Perform all work in accordance with the Department's 2012 Standard Specifications, Supplemental Specifications, Applicable Special Provisions, and Applicable Standard and Sepia Drawings, except as hereafter specified. Article references are to the Standard Specifications. Furnish all materials, labor, equipment, and incidentals for the following work:

(1) Maintain and Control Traffic; (2) Drainage structure work; (3) Base failure and pavement repairs, (4) Remove and replace Guardrail and Guardrail End treatments; (5) Asphalt Pavement Milling and Texturing; (5) Pavement markers and markings; (6) Edge drain repairs (7) Bridge clearance mitigation and crash cushion installation (8) All other work specified as part of this contract.

**II. MATERIALS**

Except as specified in these notes or on the drawings, all materials will be according to the Standard Specifications and applicable Special Provisions and Special Notes. The Department will sample and test all materials according to Department's Sampling Manual and the Contractor will have the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing, unless otherwise specified in these notes.

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Pavement Markings -6 inch.** Use Durable Waterborne Markings.
- C. **Pavement Markings – 12 inch.** Use Thermoplastic Pavement Markings 12 inches in width in gore areas and for installation of chevrons in gore areas and islands.
- D. **Channel Lining Class III.** Channel lining will be limestone and is to be placed at pipe outlets and in ditch repair locations as directed by the Engineer.

- E. **Inlaid Pavement Markers.** Furnish and install markers in accordance with the “Special Note for Inlaid Pavement Markers”.
- F. **Overband Crack Sealing.** See Special Note for Overband Crack Sealing.
- G. **Joint Adhesive.** See “Special Note for Longitudinal Pavement Joint Adhesive”
- H. **Asphalt Emulsion for Fog Seal.** See Special Note for Fog Seal.
- I. **Fill and Grade Median.** Provide soil free of boulders or vegetation where additional material is needed.
- J. **Base Failure Repairs.** Provide materials in accordance with KYTC Specifications for the specified items of work.
- K. **Fiber Reinforcement for HMA.** See Special Note for Fiber Reinforcement of HMA

### III. CONSTRUCTION METHODS

- A. **Maintain and Control Traffic.** See Traffic Control Plan. Use waterblasting methods only for striping removal when necessary in lieu of abrasive or other methods.
- B. **Site Preparation.** Be responsible for all site preparation. Do not disturb existing signs. This item will include, but is not limited to, incidental excavation and backfilling; removal of all obstructions or any other items; disposal of materials; sweeping and removal of debris; shoulder preparation and restoration, temporary and permanent erosion and pollution control; and all incidentals. Site preparation will be only as approved or directed by the Engineer.
- C. **Disposal of Waste.** Dispose of all cuttings, debris, and other waste off the right-of-way at approved sites obtained by the Contractor. The contractor will be responsible for obtaining any necessary permits for this work. Temporary openings in the right of way fence for direct access to waste sites off the right of way or for access to other public roads will not be allowed. No separate payment will be made for obtaining the necessary permits, but will be incidental to the other items of the work. Disposal of existing cuttings and brush shall adhere to Section 202 of the current Standard Drawings.
- D. **Final Dressing, Clean Up, and Seeding and Protection.** After all work is completed, completely remove all debris from the job site. Perform Class A Final Dressing on all disturbed areas. Sow disturbed earthen areas with Seed Mixture No. I and use erosion control blanket in lieu of “Seeding and Protection” in all seeding applications. Install erosion control blanket in all ditching areas not receiving aggregate channel lining.

- E. **Guardrail.** Remove, replace and extend guardrail and guardrail End Treatments listed in the Guardrail Summary or as directed by the Engineer. Quantities are approximate only. Actual locations will be determined by the Engineer at the time of construction. Grade and reshape shoulders to proper template for new End Treatment. Utilize DGA for embankment when required for new end treatments. Remove any existing guardrail with a lane closure in place. Do not leave the area unprotected. After the guardrail is removed, a shoulder closure shall remain in place until the guardrail is replaced in that area.
- F. **Pavement Striping and Inlaid Pavement Markers.** Pavement striping will be in accordance with Section 112 for temporary striping, 713 for Durable Waterborne Paint, and Section 714 for Thermoplastic Markings, except that:
- (1). Striping will be 6" in width, except 12" in gore area splitter islands and chevrons.
  - (2). Permanent striping or temporary striping will be in place before a lane is opened to traffic.
  - (3). Pavement Markers shall be installed per Standard Drawings TPM-105-02 (Arrangement C), TPM-125-02, TPM-130-02 and TPM-135-02, and Special Note for Inlaid Pavement Markers.
- G. **On-Site Inspection.** In accordance with section 102.06, each Contractor submitting a bid for this work will make a thorough inspection of the site prior to submitting a bid and will thoroughly familiarize himself with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department.
- H. **Caution:** Information shown on the drawings and in this proposal and the types and quantities of work listed are not to be taken as an accurate or complete evaluation of the material and conditions to be encountered during construction. The bidder must draw his own conclusions as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information above.
- I. **Utility Clearance.** It is not anticipated that utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities.
- J. **Joint Adhesive.** See "Special Note for Longitudinal Pavement Joint Adhesive".
- K. **Roadway Excavation.** A quantity of Roadway Excavation has been established removal of mounds at bridge piers, see detail sheets.
- L. **Crushed Aggregate No. 2.** Crushed Aggregate No. 2 will be used as protection of perforated pipe headwalls in accordance with the edge drain detail and for slope

protection at shoulder erosion repair areas.

- M. **Remove Paved Ditch.** As individually approved by the engineer, paved ditches that are required to be removed due to failure or damage, may be broken into fragments no greater than 1 foot diameter and reshaped and allowed to remain in place. The ditches must be regraded, filling any voids, and the broken concrete used in the same manner as channel lining. The broken concrete will be supplemented by a 1 – 2 feet thick application of Channel Lining Class III as directed by the engineer.
- N. **Asphalt Emulsion for Fog Seal.** See Special Note for Fog Seal.
- O. **Overband Crack Sealing.** See Special Note for Overband Crack Sealing. Overband crack sealing will be used in asphalt pavement repair areas after milling and texturing and prior to placement of asphalt base. See Pavement Repair Detail.
- P. **Milling and Texturing.** Milling and texturing will be used for removal of the existing asphalt surface, prior to resurfacing, removal of additional depths of asphalt for pavement repairs, and for removal of additional depths of asphalt materials for mitigation of deficient bridge clearances.
- Q. **Fill and Grade Median.** A quantity of Fill and Grade Median has been established to address a depression in the median. Apply soil from median pier excavation or other approved source to reshape the median. Grade, reshape, and provide permanent seeding.
- R. **Base Failure Repairs.** The engineer will determine the locations and limits to perform base failure repairs. See detail for construction methods.
- S. **Reshape Median.** Regrade existing DGA in the median at the south approach to the Little Kentucky River Bridge to remove existing rills. Add additional DGA as needed. Place two layers of asphalt seal coat upon completion of the reshaping.
- T. **Law Enforcement Officer.** See Maintenance of Traffic Plan.
- U. **Fiber Reinforcement for HMA.** See Special Note for Fiber Reinforcement of HMA

#### IV. METHOD OF MEASUREMENT

- A. **Maintain and Control Traffic.** See Traffic Control Plan. Only the bid items listed will be measured for payment. No measurement or payment for striping removal or removal or covering of existing pavement marker lenses will be made and will be considered incidental to “Maintain and Control Traffic”.

- B. **Site Preparation.** Other than the bid items listed, site preparation will not be measured for payment, but will be incidental to the other items of work.
- C. **Chevrons.** Painted chevrons in gore areas and splitter islands will be measured as linear feet of “Pave Striping-Thermo-12 in W”.
- D. **Erosion Control.** Erosion control items will be measured and paid in accordance with the Standard Specifications for Road and Bridge Construction. No direct measurement for seeding will be made as the seeding is incidental to the erosion control blanket in accordance with the specifications.
- E. **Pavement Repair.** Pavement repair areas shall be bid “Milling and Texturing” per ton and all asphalt mixtures measured per ton, and overband crack sealing measured by the pound, and consists of all labor, equipment and materials necessary to complete the repairs as shown in the detail provided in the proposal. Locations and quantities will be determined in the field by the engineer. Quantities for this item may be increased, reduced or eliminated at the discretion of the engineer.
- F. **Remove Existing Paved Ditch.** Removal of paved ditches will be measured by the square yard and will include the measured quantity that are broken, reshaped, supplemented by channel lining and allowed to remain on the project as approved by the engineer. Channel lining used to supplement the broken concrete will be measured by the tons placed.
- G. **Removal of Wedge Curb.** If wedge curb is encountered in a shoulder repair area or to be replaced with concrete wedge curb, removal of the existing wedge curb will be considered incidental to other items on the contract.
- H. **Joint Adhesive.** See “Special Note for Longitudinal Pavement Joint Adhesive”.
- I. **Roadway Excavation.** Roadway Excavation will be measured as design quantity. The quantity provided is an estimated quantity and the contractor must draw his own conclusions as to the actual amount of excavation required.
- J. **Inlaid Pavement Markers.** Inlaid pavement markers are to be measured in accordance with the “Special Note for Inlaid Pavement Markers”. No direct payment will be made for the removal of the existing pavement markers prior to the milling operation and shall be considered incidental to milling and texturing.
- K. **Removal of Existing Pavement Markings.** Removal of pavement markings will be considered incidental to Maintain and Control Traffic in accordance with the specifications. Contrary to the Specifications, removal of existing pavement markers will not be measured for payment and will be considered incidental to milling and texturing.
- L. **Asphalt Emulsion for Fog Seal.** See Special Note for Fog Seal.
- M. **Overband Crack Sealing.** See Special Note for Overband Crack Sealing.

- N. **Fill and Grade Median.** Fill and Grade Median will be measured per linear foot, measured along the center of the median longitudinally. Temporary and permanent erosion control items will be measured separately.
- O. **Base Failure Repairs.** See Base Failure Repair Detail.
- P. **Law Enforcement Officer.** Law Enforcement Officer will be paid per hour, per each qualified officer is present and actively providing services described in the Maintenance of Traffic plan.
- Q. **Fiber Reinforcement for HMA.** See Special Note for Fiber Reinforcement of HMA

## V. BASIS OF PAYMENT

No direct payment will be made other than for the bid items listed. All other items required to complete the construction will be incidental to the bid items listed. Existing signs damaged by the Contractor will be replaced by the Contractor at his expense. Payment will be made in accordance with the KYTC Standard Specifications, current edition with supplemental specifications and current Standard Drawings unless otherwise specified herein.

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Site Preparation.** Other than the bid items listed, no direct payment will be allowed for site preparation, but will be incidental to the other items of work.
- C. **Pavement Markers and Permanent Striping.** See Traffic Control Plan, Standard Specifications and “Special Note for Inlaid Pavement Markers”.
- D. **Lane Closures.** Contrary to Section 112, lane closures will not be measured for payment but will be incidental to the bid item “Maintain and Control Traffic”. Arrow boards, portable message boards, and signs shall be paid for one time regardless of how many times they are moved.
- E. **Ditching and Shouldering.** In accordance with Section 209 of the Standard Specifications, the bid item “Ditching and shouldering” includes ditching on both sides of the roadway and the median for the entire length of the project. Cleaning of all drainage structures, including perforated pipe headwalls and pipe structures 36 inches in diameter or less is also included in this bid item. In addition to Section 209.04.06 shouldering shall include all materials required to complete the shoulder repairs as shown in the shoulder repair detail except the bid items listed for payment on the shoulder repair detail. Approximate locations for this repair is shown on the shoulder repair detail.
- F. **Remove Existing Paved Ditch.** The removal of the existing paved ditch shall be paid for as “square yards” and shall include the breaking and reshaping of the existing concrete in preparation for installation of the Class III Channel Lining.

- G. **Milling and Texturing.** Milling and texturing will be paid for per section 408.05 of the 2012 Standard Specifications. No direct payment will be made for disposal of millings.
- H. **Waterblasting Striping Removal.** Waterblasting Striping Removal will be required for all striping removal applications and will be considered incidental to “Maintain and Control Traffic”.
- I. **Joint Adhesive.** See “Special Note for Longitudinal Pavement Joint Adhesive”
- J. **Inspect and Certify Edge Drain System.** One payment for “Inspect and Certify Edge Drain System” will include both the initial camera inspection of the entire existing system which is required to identify damaged and nonfunctional areas in the existing system requiring replacement, and also includes the second inspection required for certification of the newly installed replacement areas.
- K. **Asphalt Emulsion for Fog Seal.** See Special Note for Fog Seal.
- L. **Overband Crack Sealing.** See Special Note for Overband Crack Sealing.
- M. **Fill and Grade Median.** Fill and Grade Median will be paid by Linear Feet.
- N. **Base Failure Repairs.** See Base Failure Repair Detail. Only items listed for individual payment on the Base Failure Repair Detail will be considered for payment.
- O. **Reshape Median.** No direct payment will be made for “Reshape Median”. Measurement and payment for accepted quantities of Channel Lining, DGA Base, Asphalt Seal Coat and Asphalt Seal Aggregate will constitute full compensation for all work required to reshape the eroded existing DGA and provide a protective asphalt seal coat.
- P. **Fiber Reinforcement for HMA.** See Special Note for Fiber Reinforcement of HMA

**I-71**  
**Henry County**  
**NHPPIM 0711 (122)**  
**FD52 052 0071 024-029**  
**Item No. 5-20002**  
**MP 24.679 TO MP 28.112**

1. This project is intended to provide a thin mill and inlay to provide a new riding surface through the length of the project. Additionally, pavement repairs at select locations will be required by additional depth milling and by inlaying with asphalt base.
2. The dimensions shown on the typical section for pavement and shoulder widths and thickness are nominal or typical dimensions. The actual dimensions to be constructed may be varied to fit existing conditions as directed or approved by the Engineer. It is not intended that existing pavement or shoulders be widened unless otherwise specified in the Proposal.
3. The contractor is to be advised of the locations of overhead utility wires on the project. The following locations are approximate:

Mile 25.96

Mile 27.05

Mile 27.65

**CAUTION:** Other overhead utility locations may exist. These and all other utilities should be avoided on this project. If any utility is impacted, it will be the contractor's responsibility to contact the affected utility and cover any costs associated with the impact.

4. The contractor is advised that the planned locations of work established by milepoints are referenced from the Kentucky Transportation Cabinet's Official Route Log. The existing reference markers may not correspond to the established work locations.
5. Only damaged guardrail segments are scheduled for replacement on this project, see guardrail summary for locations. Quantities of guardrail removal and installation of new guardrail have been established for areas requiring removal for shoulder erosion repair work. The contractor will place traffic drums on 20' spacing in the areas and pin down exposed blunt ends until such time that guardrail is re-established. Either a lane closure or shoulder closure shall be in place at any time that a section of guardrail is not in place.
6. The Contractor shall deliver existing salvaged guardrail system materials to the Central Sign Shop and Recycle center at 1224 Wilkinson Blvd in Frankfort, KY.



Contact Section Supervisor at (502) 564-8187 to schedule the delivery of material. Deliver the material between the hours of 8:00AM and 3:30PM, Monday through Friday. There is a Guardrail Delivery Verification Sheet which must be completed and signed by the Contractor, Engineer and a representative of the Central Sign Shop and Recycle Center. A copy of this sheet is included elsewhere in the proposal.

7. Flexible Delineators shall meet the requirements of Section 830 and 838 of the Standard Specifications, and be placed in accordance with Section 3D of the M.U.T.C.D., current edition.
8. This project requires the use of a Material Transfer Vehicle. In accordance with Section A of 403.03.05.
9. The speed limit on the project will be reduced to 55 mph while lane closures are in place. Any time work is suspended the speed limit will revert back to 70 mph. Also, double fine signs are set up in the project to be installed while workers are present in the work zone.
10. Areas throughout the project have slopes that are eroding significantly. These areas shall be repaired in accordance with the "Slope Repair Detail" as shown elsewhere in the proposal. The repair locations listed may be lengthened, shortened, or eliminated by the Engineer. Locations and quantities for this item of work is shown on the "Slope Repair Detail". Additionally, some areas have been identified to receive a concrete wedge curb with flume outlets to mitigate slope erosion.
11. The existing edge drain system will be inspected for obstructions. Only damaged or non-functioning portions of the edge drain system identified by the initial inspection will be replaced. The bid item "Inspect and Certify Edge Drain" shall include inspection and certification of the new edge drain and outlet installation as well as an initial inspection of the existing edge drain system in order to determine repair locations. One payment of "Inspect and Certify Edge Drain" (lump sum) will be full compensation for both inspections and final certification. The contractor will be responsible for locating all existing outlets, perforated pipe headwalls and cored hole drainage outlets, removal of debris from these outlets in preparation for the camera inspection. Location of the headwalls and cleaning/preparation for the inspection will be considered incidental to the bid item "Inspect and Certify Edge Drain" and "Ditching and Shouldering".
12. There are quantities of perforated pipe headwalls, perforated and non-perforated pipe, remove and reset perforated pipe headwalls, and #2 crushed aggregate established in order to remove and replace some of the existing edge drain system. The bid item "Remove and Reset Perforated Pipe Headwalls" will be full compensation in order to remove the existing headwall, cleaning the headwall of debris, install a new rodent screen, and reinstall the headwall at a 4% slope to insure positive outflow. The existing pipe and headwalls to be removed and replaced instead of removed and reset shall

become the property of the contractor and disposed of off the project. Outlet pipes and headwalls are to be located where existing perforated pipe headwalls occur in the field if practical. Some headwalls were not discovered during the initial survey. The contractor shall space outfall pipes and headwalls per notes on the edge drain detail. Removal and disposal of existing perforated pipe outlets is incidental to other items of work. There are quantities of Crushed Aggregate Size No. 2 to be utilized in accordance with standard drawing RDP-010-08 around the headwall for both new headwalls and re-installed headwalls.

13. The existing edge drain system is to be preserved except in areas where work is designated or during the inspection determined to be removed and replaced. Any part of the edge drain system damaged during other construction activities will be replaced at the contractor's expense. The Contractor will clean existing perforated pipe headwalls and replace rodent screens as part of the bid items "Ditching and Shouldering".
14. Perforated pipe headwall types are to be field verified prior to ordering. Class 4 Asphalt Base 1.0D PG76-22 shall be used in the trench cap to bring the top of trench elevation back to the original grade prior to milling and resurfacing (See Typical Section). Quantities for the asphalt cap have been included in the summaries.
15. The existing paved median U-turns within the project limits will be resurfaced.
16. The contractor will be allowed to access median U-turns and cross the median provided proper lane closures of the inside lanes are utilized at the entry and exit locations at the contractor's expense. Use only short duration lane closures and remove lane closures when median U-turn access is not needed.
17. Quantities of Channel Lining Class III have been included to be used in eroded areas around pipe inlet/outlets or in ditches to be repaired as directed and/or approved by the Engineer. The actual limits of the channel lining will be as directed and/or approved by the Engineer. Geotextile Fabric Type I, as outlined in Section 214 of the Standard Specifications, will not be measured for payment and will be considered incidental to channel lining. A quantity of class B Concrete has been established to be used to grout channel lining in highly eroded areas.
18. The contractor is to take care not to damage any existing roadway signs. Any roadway signs that are damaged during construction are to be replaced at the contractor's expense in accordance with section 105.08 of the standard specifications.
19. The contractor is to take care not to damage any existing light poles and wiring. Any light poles or wiring that is damaged during construction is to be replaced at the contractor's expense in accordance with section 105.08 of the standard specifications. Contact District 5 Traffic for as-built lighting plans and/or assistance in locating the existing conduit.

20. The cleaning of existing pipe culvert inlets and outlets 36 inches or less in diameter are incidental to the bid item for "Ditching and Shouldering" in accordance with Section 209 of the 2012 Edition of the Standard Specifications for Road and Bridge Construction. This includes the cleaning of existing perforated pipe headwalls.
21. Areas established as pavement repair locations will be replaced as directed by the Engineer. After the contractor has closed the roadway the Engineer will mark the areas to be repaired. The engineer reserves the right to increase, decrease, or eliminate this item of work based on the field conditions encountered. Monitor repair areas for settlement until placement of final surfacing and repair with leveling and wedging as directed by the engineer.
22. Any embankment and backfill for the culvert pipe installation is incidental to the respective bid item.
23. A quantity of remove pipe has been estimated for removal and replacement of small drainage structures. Remove only the amount needed for the repair. Replace pipe with the same materials as the existing pipe to be connected. Use metal bands for corrugated metal pipe tie-ins and remove concrete pipe to the nearest bell or spigot and bell up the new section if possible. If pipe cannot be connected by belling or by pipe bands, the contractor may seal the connection area and place a concrete collar with a minimum 12 inch thickness in any direction at his own expense. Verify size, length and type of pipe prior to ordering precast small drainage structures and replacement pipe.
24. Any embankment and backfill for the culvert pipe installation or small drainage structure installation is incidental to the respective bid item installed.
25. Quantities of Asphalt Seal Coat and Seal Aggregate, and DGA base have been established to wedge and eliminate greater than 1 inch drop offs. Due to the inconsistent nature of the slopes outside the paved shoulder, and due to the existence of existing guardrail, application of asphalt seal coat will not be practical in all locations. The intent is to provide a DGA wedge to eliminate dropoff situations and to re-establish the typical stone shoulder width where needed and where practical to do so.
26. Striping in exit gore areas and striping intended to outline islands will be 12" in width. Chevrons are to be placed in the gore areas as shown on the plan sheets and will be constructed with 12" striping on approximate 10' spacing and will be measured for payment by the linear feet of each 12" line placed to construct the hatching or chevron.

27. Existing mainline shoulders are to be milled and inlayed 4' wide. The proposed 4' wide mill and inlay of the mainline shoulders is intended to extend to beyond the existing rumble strips and existing perforated pipe trench cap. The remaining shoulder width that is not scheduled to be milled and inlayed is to be treated with an asphalt emulsion fog seal. See typical sections for details.
28. A detail has been provided for revising the profile to achieve 16' minimum clearance at the Mount Olivet Road overpass. Extend milling operations across the full width of the shoulders and to the shoulder breaks in order to lower the profile grade of the mainline lanes and entire graded widths of both inside and outside shoulders.

Mill mainline lanes from an initial depth of 6", tapering to the depth specified in the detail. Install 4.5" depth fiber reinforced asphalt base as detailed. Provide a temporary wedge from the existing surface elevation down to the newly installed asphalt base in order to maintain traffic temporarily on the asphalt base. Mill the adjacent shoulders and stone shoulders to match the resulting wedge and asphalt base grade to eliminate the step-up and eliminate trapping drainage. Where guardrail is present and the resulting DGA shoulder is higher than the adjacent asphalt shoulder, either grade around the existing guardrail posts and hand apply seal coat to lower the grade, or alternately the contractor may remove and reinstall the guardrail at his own expense. No measurement or payment of remove guardrail or payment for the re-installation or replacement of guardrail will be made for this item of work. After placement of the final surfacing course, regrade DGA outside the paved shoulders and place 2 layers of asphalt seal coat.

29. Common median sections of this project contain cable barrier. Do not disturb the existing cable barrier. Damage to the cable barrier resulting from the contractor's operations will be repaired by a qualified contractor, as approved by KYTC District 5, and at the expense of the prime contractor for this project. Use extreme caution when performing excavation for crash cushion installation in the vicinity of the cable barrier. When conducting milling operations for profile corrections at the Mount Olivet Road overhead bridge, the paved shoulder grade will be lowered approximately 2 1/2". Reduce the slope between the shoulder break and the concrete strip containing the cable barrier. Use caution to not damage the cable barrier. Regrade and place asphalt seal coat between the paved shoulder and the concrete strip.

30. Due to the presence of Cable Barrier, crash cushion installations at bridge piers and wall transitions will only be required for the southbound direction of travel. The entire mound will be removed and regraded in accordance with RBI 007-09 and crash walls or pier retrofit will be constructed for the entire length of bridge pier. A detail has been provided for retrofit of the pier at KY146 to provide a smooth wall. The elevation of the top of the wall shall be established by field measurements to ensure minimum height is achieved. Minor field modifications to this detail may be required. Median barrier ends and crash walls at other structures are to be constructed in accordance with RBE 070-06.
31. Reshape and apply additional DGA and 2 applications of seal coat in the median approaching the Little KY River Bridge.
32. Base Failure Repairs – The engineer will identify locations to receive Base Failure Repair treatment in the field. Monitor the repair areas for settlement until placement of final surfacing and repair by leveling and wedging as directed.

## REFERENCES

1. Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2012.
2. FHWA Manual on Uniform Traffic Control Devices – 2009 Edition.
3. Kentucky Department of Highways Standard Drawings, Current Edition, as applicable:

RBI-002-07	TYPICAL GUARDRAIL INSTALLATIONS
RBI-003-09	TYPICAL INSTALLATION FOR GUARDRAIL END TREATMENT TYPE 2A
RBR-005-11	GUARDRAIL COMPONENTS
RBR-010-06	GUARDRAIL TERMINAL SECTIONS
RDB-006-08	DROP BOX INLET TYPE 6A, 6B, 6C, 6D, 6E & 6F
RDB-155-02	METAL END SECTION TYPE 3 AND 4 (CROSS STRUCTURE)
RDD-040-05	CHANNEL LINING CLASS II AND III
RDD-020-07	FLUME INLET TYPE 2
RDH-020-03	PIPE CULVERT HEADWALLS
RDI-001-010	CULVERT, ENTRANCE AND STORM SEWER PIPE TYPES AND COVER HEIGHTS
RDI-002-05	CULVERT, ENTRANCE AND STORM SEWER PIPE TYPES AND COVER HEIGHTS
RDI-003-05	CULVERT & STORM SEWER PIPE TYPES AND COVER TYPES
RDI-020-09	PIPE BEDDING FOR CULVERTS ENTRANCE AND STORM SEWER PIPE
RDI-021-01	PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER REINFORCED CONCRETE PIPE
RDI-025-05	PIPE BEDDING TRENCH CONDITION
RDI-026	PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE
RDI-035-02	COATING, LININGS AND PAVINGS FOR NON-STRUCTURAL PLATE PIPE
RDI-040-01	EROSION CONTROL BLANKET SLOPE INSTALLATION
RDI-041-01	EROSION CONTROL BLANKET CHANNEL INSTALLATION
RDP-001-06	PERFORATED PIPE TYPES AND COVER HEIGHTS
RDP-010-09	PERFORATED PIPE HEADWALLS
RDX-160-06	SECURITY DEVICES FOR FRAMES, GRATES AND LIDS
RDX-210-03	TEMPORARY SILT FENCE
RDX-220-05	SILT TRAP - TYPE A
RDX-225-01	SILT TRAP - TYPE B
RDX-230-01	SILT TRAP - TYPE C
RGS-002-06	SUPERELEVATION FOR MULTI-LANE PAVEMENT
RGX-001-06	MISCELLANEOUS STANDARDS
TPM-105-03	PAVEMENT MARKER ARRANGEMENTS MULTI-LANE ROADWAYS

TPM-110-03	PAVEMENT MARKER ARRANGEMENTS FOR MULTI-LANE ROADWAYS
TPM-125-03	PAVEMENT MARKER ARRANGEMENT EXIT-GORE AND OFF-RAMP
TPM-135-03	PAVEMENT MARKER ARRANGEMENT ON-RAMP WITH PARALLEL ACCELERATION LANE
TPM-170	FLEXIBLE DELINEATOR POST ARRANGEMENTS FOR HORIZONTAL CURVES
TPM-171	FLEXIBLE DELINEATOR POST ARRANGEMENTS FOR INTERCHANGE RAMPS AND CROSSOVERS
TTC-115-03	LANE CLOSURE MULTI-LANE HIGHWAY CASE I
TTC-135-02	SHOULDER CLOSURE
TTD-120-02	WORK ZONE SPEED LIMIT AND DOUBLE FINE SIGNS
TTS-110-01	MOBILE OPERATION FOR PAINT STRIPING CASE III
TTS-115-02	MOBILE OPERATION FOR PAINT STRIPING CASE IV
TTS-120-02	MOBILE OPERATION FOR DURABLE STRIPING CASE 1

4. Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2012, Appendix B - Supplemental Specifications, as applicable:

Special Note	Typical Section Dimensions <i>attached</i>
Special Note	Portable Changeable Message Signs <i>attached</i>
Special Note	Before You Dig <i>attached</i>
Special Note	Fixed Completion Date and Liquidated Damages <i>attached</i>
General Note	Asphalt Pavement Ride Quality <i>attached</i>
General Note	Compaction of Asphalt Mixtures <i>attached</i>
Special Note	Asphalt Milling and Texturing <i>attached</i>
Special Note	Special Note for Inlaid Pavement Markers <i>attached</i>
Special Note	Special Note for Significant Project <i>attached</i>
Special Note	Special Note for Intelligent Compaction of Asphalt Mixtures <i>attached</i>
Special Note	Special Note for Paver Mounted Temperature Profiles <i>attached</i>
Special Note	Special Note for Fog Seal
Special Note	Special Note for Overband Crack Sealing
Special Note	Guardrail Delivery Verification Sheet <i>attached</i>
Special Note	Special Note for Longitudinal Pavement Joint Adhesive <i>attached</i>
Special Note	Special Note for Fiber Reinforcement of Concrete <i>attached</i>

**SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS**  
**I-71**  
**HENRY COUNTY**  
**ITEM NO. 5-20002**

The dimensions shown on the typical sections for pavement and shoulder widths are nominal or typical dimensions. The actual dimensions to be constructed may be varied to fit existing conditions as directed or approved by the Engineer. It is not intended that existing pavement or shoulders be widened or narrowed **EXCEPT** where specified elsewhere in the Proposal.



## **SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS**

### **I-71 HENRY COUNTY ITEM NO. 5-20002**

**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 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

**SPECIAL NOTE FOR BEFORE YOU DIG**

**I-71  
HENRY COUNTY  
ITEM NO. 2-20002**

Call 1-800-752-6007 toll free a minimum of two and no more than ten business days prior to excavation for information on the location of existing under-ground utilities which subscribe to the before-u-dig (BUD) service. Coordinate excavation with all utility owners, including those who do not subscribe to BUD.

**Special Note for Fixed Completion Date and  
Liquidated Damages**

**I-71  
HENRY COUNTY  
ITEM NO. 2-20002**

Contrary to Section 108.09, Liquidated Damages of \$5,000 per calendar day will be assessed for each day work remains incomplete beyond the Specified Project Completion Date. This project has a Fixed Project Completion Date of August 15, 2019.

Also, an agreed upon Liquidated Damage of \$2,500 per hour will be assessed for the first hour or portion of an hour traffic is reduced to one lane outside the allowable hours and days listed in the Maintenance of Traffic Plan and for any non-approved activity. A Liquidated Damage of \$5,000 per hour will be assessed for the second hour or portion of the second hour, and every subsequent hour or portion of an hour that traffic is reduced to one lane outside the allowable hours and days listed in the Maintenance of Traffic Plan and for any non-approved activity. These additional damages will be assessed in addition to and concurrently with any other penalties or Liquidated Damage assessed on the project.

Also contrary to Section 108, liquidated damages will be charged during the months of December through March.

**General Note 444**  
**Asphalt Pavement Ride Quality**  
**I-71**  
**HENRY COUNTY**  
**ITEM NO. 5-20002**

Pavement Rideability Requirements, in accordance with Section 410 of the Standard Specifications, Current Edition, shall apply on this project. Category A shall apply.

**General Note 447**

**Compaction of Asphalt Mixtures**

**I-71**

**HENRY COUNTY**

**ITEM NO. 5-20002**

Will accept the compaction of asphalt mixtures furnished for the driving lanes and ramps at one inch or greater on this project by Option A according to subsections 402 and 403 of the standard specifications, current edition. Use joint cores as described in subsection 402.03.02 for surface mixtures only. Will accept the compaction of all other asphalt mixtures by option B.

**SPECIAL NOTE FOR  
ASPHALT MILLING AND TEXTURING  
I-71  
HENRY COUNTY  
Item No. 5-20002**

Do not allow public traffic to drive on the milled surface. When traffic is reduced to one lane, begin paving operations as soon as practical behind the milling operations to facilitate opening of two lanes of traffic within the required times listed in the maintenance of traffic plan. Penalties will apply for failure to restore traffic to a minimum of two lanes within the required times.

At no additional expense to the Cabinet, the contractor will be required to deliver 500 tons of milling to the Henry County Maintenance Facility, 368 Port Royal Road, Campbellsburg, KY 40011.

Except for the 500 tons that are to be retained by the Department, the Contractor will take possession of and dispose of the millings off the project.

Removal of the existing pavement markers prior to the milling operation is considered incidental to the bid item "Asphalt Pavement Milling and Texturing".



## SPECIAL NOTE FOR INLAID PAVEMENT MARKERS

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### I. DESCRIPTION

Except as provided herein, perform all work in accordance with the Department's Standard and Supplemental Specifications and applicable Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications. This work shall consist of:

- (1) Maintain and Control Traffic; and (2) Furnish and install Inlaid Pavement Markers (IPMs) in recessed grooves; and (3) Any other work as specified by these notes and the Contract.

### II. MATERIALS

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

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Markers.** Provide reflective lenses with depth control breakaway positioning tabs. Before furnishing the markers, provide to the Engineer the manufacturer's current recommendations for adhesives and installation procedures. Use one brand and design throughout the project. Use markers meeting the specifications in the table below.

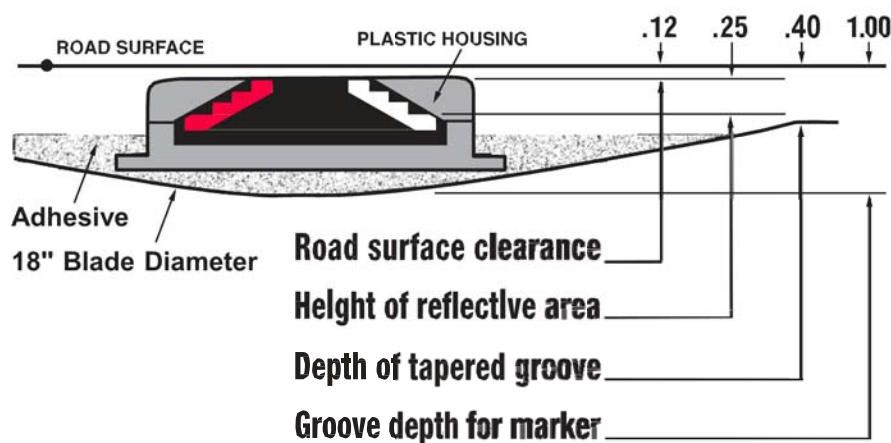
<b>SPECIFICATIONS FOR HOUSING AND REFLECTOR</b>	
Material:	Polycarbonate Plastic
Weight:	Housing 2.00 oz.
	Reflector 2.00 oz.
Housing Size:	5.00" x 3.00" x 0.70" high
Specific Intensity of Reflectivity at 0.2° Observation Angle	
White:	3.0 at 0° entrance angle
	1.2 at 20° entrance angle
Yellow:	60% of white values
Red:	25% of white values

- C. Adhesives.** Use adhesives that conform to the manufacturer's recommendations.

### III. CONSTRUCTION

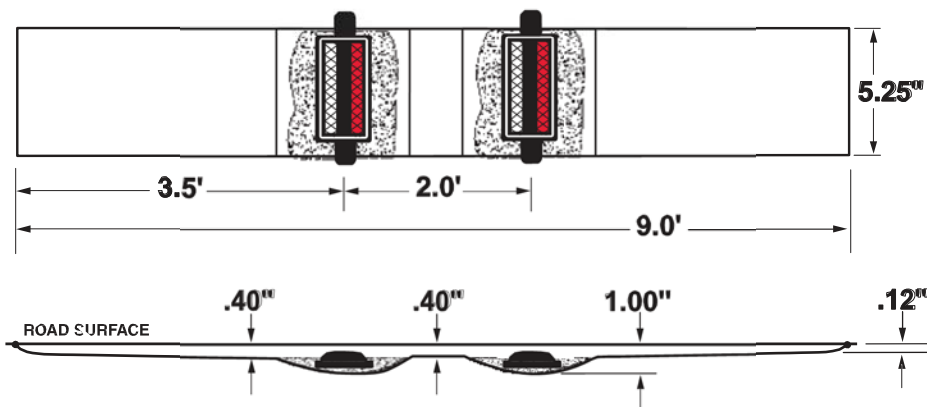
- A. Experimental Evaluation.** The University of Kentucky Transportation Center will be evaluating this installation of IPMs. Notify the Engineer a minimum of 14 calendar days prior to beginning work. The Engineer will coordinate the University's activities with the Contractor's work.
- B. Maintain and Control Traffic.** See Traffic Control Plan.
- C. Installation.** Install IPMs in recessed grooves cut into the final course of asphalt pavement according to the manufacturer's recommendations. Do not cut the grooves until the pavement has cured sufficiently to prevent tearing or raveling. Cut installation grooves using diamond blades on saws that accurately control groove dimensions. Remove all dirt, grease, oil, loose or unsound layers, and any other material from the marker area which would reduce the bond of the adhesive. Maintain pavement surfaces in a clean condition until placing markers.

Prepare the pavement surfaces, and install the markers in the recessed groove according to the drawing below. Use an approved snowplowable epoxy adhesive. Ensure that the adhesive bed area is equal to the bottom area of the marker, and apply adhesive in sufficient quantity to force excess out around the entire perimeter of the marker. Use materials, equipment, and construction procedures that ensure proper adhesion of the markers to the pavement surface according to the manufacturer's recommendations. Remove all excess adhesive from in front of the reflective faces. If any adhesive or foreign matter cannot be removed from the reflective faces, or if any marker fails to properly adhere to the pavement surface, remove and replace the marker at no additional cost to the Department.



- D. Location and Spacing.** Install the markers in the pattern for high reflectivity with two (2) IPMs per groove. Locate and space markers as shown in the current standard drawings or sepias (note: use Inlaid Pavement Markers wherever Type V Pavement Markers are called for). Do not install markers on bridge decks. Do not install a marker on top of a pavement joint or crack. Offset the recessed groove a minimum of 2

inches from any longitudinal pavement joint or crack and at least one inch from the painted stripe, ensuring that the finished line of markers is straight with minimal lateral deviation. Give preference to maintaining the 2-inch offset between recessed groove and joint as opposed to keeping the line of markers straight.



Place inlaid markers as much in line with existing pavement striping as possible. Place markers installed along an edge line or channelizing line so that the near edge of the plastic housing is no more than one inch from the near edge of the line. Place markers installed along a lane line between and in line with the dashes. Do not place markers over the lines except where the lines deviate visibly from their correct alignment, and then only after obtaining the Engineer's prior approval of the location.

If conflicts between recessed groove placement in relation to pavement joint and striping cannot be resolved, obtain the Engineer's approval to eliminate the marker or revise the alignment.

- E. Disposal of Waste.** Dispose of all removed asphalt pavement, debris, and other waste at sites off the right of way obtained by the Contractor at no additional cost to the Department. See Special Note for waste and Borrow.
- F. Restoration.** Be responsible for all damage to public and/or private property resulting from the work. Restore all damaged features in like kind materials and design at no additional cost to the Department.
- G. On-Site Inspection.** Make a thorough inspection of the site prior to submitting a bid and be thoroughly familiar with existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid as evidence of this inspection having been made and will not honor any claims for money or grant Contract time extensions resulting from site conditions.
- H. Caution.** Do not take information shown on the drawings and in this proposal and the types and quantities of work listed as an accurate or complete evaluation of the material and conditions to be encountered during construction, but consider the types

and quantities of work listed as approximate only. The bidder must draw his own conclusion as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation or extension of Contract time if the conditions encountered are not in accordance with the information shown.

#### IV. MEASUREMENT

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. “INLAID PAYMENT MARKER” shall be measured as each. One (1) installation of “INLAID PAVEMENT MARKER” will consist of grooving the pavement, removing asphalt cuttings and debris, preheating pavement to remove moisture, adhesives, and installation of two (2) markers with all lenses in accordance with this note.

**Note: Each pay item of Inlaid Pavement Marker will require two markers.**

#### V. PAYMENT

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Inlaid Pavement Markers.** The Department will make payment for the completed and accepted quantity of completely installed “INLAID PAVEMENT MARKERS” at the Contract unit price, each. Accept payment as full compensation for all labor, equipment, materials, and incidentals to accomplish this work to the satisfaction of the Engineer. A system of one (1) groove and two (2) markers shall be paid as one “INLAID PAVEMENT MARKER”. The bid item “INLAID PAVEMENT MARKER” shall be used regardless of the color and type of lenses required.

**Significant Project- Project Traffic Coordinator (PTC)**

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

## SPECIAL NOTE FOR INTELLIGENT COMPACTION OF ASPHALT MIXTURES

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

**1.0 DESCRIPTION.** Provide and use Intelligent Compaction (IC) Rollers for compaction of all asphalt mixtures.

**2.0 MATERIALS AND EQUIPMENT.** In addition to the equipment specified in Subsection 403.02, a minimum of one (1) IC roller is to be used on the project at all times, two (2) IC rollers will be required when the paving train consists of three (3) or more rollers. The Contractor is to only the IC roller(s) for compaction as the breakdown and/or intermediate roller(s). All IC rollers will meet the following minimum characteristics:

- 1) Are self propelled double-drum vibratory rollers equipped with accelerometers mounted in or about the drum to measure the interactions between the rollers and compacted materials in order to evaluate the applied compactive effort. The IC rollers must have the approval of the Engineer prior to use. Examples of rollers equipped with IC technology can be found at [www.IntelligentCompaction.com](http://www.IntelligentCompaction.com).
- 2) Are equipped with non-contact temperature sensors for measuring pavement surface temperatures.
- 3) The output from the roller is designated as the IC-MV which represents the stiffness of the materials based on the vibration of the roller drums and the resulting response from the underlying materials.
- 4) Are equipped with integrated on-board documentation systems that are capable of displaying real-time color-coded maps of IC measurement values including the stiffness response values, location of the roller, number of roller passes, machine settings, together with the material temperature, speed and the frequency and amplitude of roller drums. Ensure the display unit is capable of transferring the data by means of a USB port.
- 5) Are equipped with a mounted Global Positioning System GPS radio and receiver either a Real Time Kinematic (RTK-GPS) or Global Navigational Satellite System (GNSS) units that monitor the location and track the number of passes of the rollers. Accuracy of the positioning system is to be a minimum of 12 inches.

**3.0 WORK PLAN.** Submit to the Engineer an IC Work Plan at the Preconstruction Conference and at least 2 weeks prior to the beginning construction. Describe in the work plan the following:

1. Compaction equipment to be used including:

- Vendor(s)
- Roller model(s),
- Roller dimensions and weights,
- Description of IC measurement system,
- GPS capabilities,
- Documentation system,
- Temperature measurement system, and
- Software.

2. Roller data collection methods including sampling rates and intervals and data file types.

3. Transfer of data to the Engineer including method, timing, and personnel responsible. Data transfer shall be provided by a real time cloud data collecting and distribution system (ex. Visionlink). The Contractor will provide the Cabinet with any vendor specific software, user id, passwords, etc. needed to access the data through this service, cost of this access is incidental to the IC bid item.

4. Training plan and schedule for roller operators, project foreman, project surveyors, and Cabinet personnel; including both classroom and field training. Training should be conducted at least 1 week before beginning IC construction. The training is to be performed by a qualified representative(s) from the IC Roller manufacture(s) to be used on the project. This training shall include how to access and use the data from the cloud data source.

**4.0 CONSTRUCTION.** Do not begin work until the Engineer has approved the IC submittals and the IC equipment.

Follow requirements established in Section 400 for production and placement, materials, equipment, acceptance plans and adjustments except as noted or modified in this Specification. Provide the Engineer at least one day's notice prior to beginning construction or prior to resuming production if operations have been temporarily suspended. Ensure paving equipment complies with all requirements specified in Section 400. The IC roller temperatures will be evaluated by the Department with the data from a Paver Mounted Infrared Temperature Gauge.

A. Pre-Construction Test Section(s) Requirements

1. Prior to the start of production, ensure the proper setup of the GPS, IC roller(s) and the rover(s) by conducting joint GPS correlation and verification testing between the Contractor, GPS representative and IC roller manufacturer using the same datum.

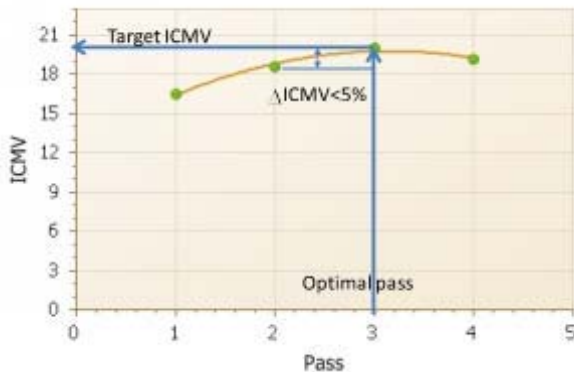
1. Ensure GPS correlation and verification testing includes the following minimum processes:

- a. Establish the GPS system to be used either one with a base station or one with mobile receivers only. Ensure all components in the system are set to the correct coordinate system; then,
  - b. Verify that the roller and rover are working properly and that there is a connection with the base station; then,
  - c. Record the coordinates of the two edges where the front drum of the roller is in contact with the ground from the on-board, color-coded display; then,
  - d. Mark the locations of the roller drum edges and move the roller, and place the mobile receiver at each mark and record the readings; then,
2. Compare coordinates between the roller and rover receivers. If the coordinates are within 12.0 in. of each other, the comparison is acceptable. If the coordinates are not within 12.0 in., diagnose and perform necessary corrections and repeat the above steps until verification is acceptable.
3. Do not begin work until acceptable GPS correlation and verification has been obtained.
4. The Contractor and the Department should conduct random GPS verification testing during production to ensure data locations are accurate. The recommended rate is once per day with a requirement of at least once per week.
5. All acceptance testing shall be as outlined in Standard Specifications section 400.

B. Construction Test Section(s) Requirements

Construct test section(s) at location(s) agreed on by the Contractor and the Engineer within the project limits. The test section is required to determine a compaction curve of the asphalt mixtures in relationship to number of roller passes and to the stiffness of mixture while meeting the Department in-place compaction requirements. All rollers and the respective number of passes for each is to be determined via control strip each time a material change, equipment change or when the Engineer deems necessary.

Conduct test section(s) on every lift and every asphalt mixture. Ensure test section quantities of 500 to 1,000 tons of mainline mixtures. Operate IC rollers in the low to medium amplitude range and at the same settings (speed, frequency) throughout the section while minimizing overlapping of the roller, **the settings are to be used throughout the project with no changes.** After each roller pass, the qualified technician from the contractor observed by the Department will use a nondestructive nuclear gauge that has been calibrated to the mixture to estimate the density of the asphalt at 10 locations uniformly spaced throughout the test section within the width of a single roller pass. The density readings and the number of roller passes needed to achieve the specified compaction will be recorded. The estimated target density will be the peak of the average of the nondestructive readings within the desired compaction temperature range for the mixture. The IC roller data in conjunction with the Veda software will create an IC compaction curve for the mixture. The target IC-MV is the point when the increase in the IC-MV of the material between passes is less than 5 percent on the compaction curve. The IC compaction curve is defined as the relationship between the IC-MV and the roller passes. A compaction curve example is as follows:



Subsequent to the determination of the target IC-MV, compact an adjoining > 250 < 500 tons section using same roller settings and the number of estimated roller passes and allow the Department to verify the compaction with the same calibrated nondestructive nuclear gauge following the final roller pass. **The Department will obtain cores at 10 locations (No cores for calibration are to be taken in the surface layer, use non-destructive density results only!)** uniformly spaced throughout the test section within the width of the single roller. Obtain GPS measurement of the core locations with a GPS rover. Use the Veda software to perform least square linear regression between the core data and IC-MV in order to correlate the production IC-MV values to the Department specified in-place air voids. A sample linear regression curve example is as follows.



C. Construction Requirements

Use the IC roller on all lifts and types of asphalt within the limits of the project.

Ensure the optimal number of roller passes determined from the test sections has been applied to a minimum coverage of 80% of the individual IC Construction area. Ensure a minimum of 75% of the individual IC Construction area meets the target IC-MV values determined from the test sections.

Do not continue paving operations if IC Construction areas not meeting the IC criteria are produced until they have been investigated by the Department. Obtain the Engineer’s approval to resume paving operations. Non-IC rollers are allowed to be used as the third roller on the project; one of the breakdown or the finish rollers is to be equipped with IC technology.



IC Construction areas are defined as subsections of the project being worked continuously by the Contractor. The magnitude of the IC Construction areas may vary with production but must be at least 750 tons per mixture for evaluation. Partial IC Construction areas of < 750 tons will be included in the previous area evaluation. IC Construction areas may extend over multiple days depending on the operations.

The IC Construction Operations Criteria does not affect the Department's acceptance processes for the materials or construction operations

**5.0 MEASUREMENT.** The Department will measure the total tons of asphalt mixtures compacted using the IC roller(s). Compaction is to be performed by a minimum of one (1) IC roller for a two (2) roller operation and a minimum of two (2) IC rollers when three (3) or more rollers are used for compaction. Material compacted by rollers not equipped with properly functioning IC equipment will not be accepted for payment of the bid item asphalt mixtures IC rolled. Use of non-IC rollers can be accepted on small areas due to equipment malfunctions at the written approval of the Engineer. Paving operations should be suspended for equipment malfunctions that will extend over three days of operation.

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

1. Payment is full compensation for all work associated with providing IC equipped rollers, transmission of electronic data files, two copies of IC roller manufacturer software, and training.
2. Delays due to GPS satellite reception of signals to operate the IC equipment or IC roller breakdowns will not be considered justification for contract modifications or contract extensions.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24781EC	Intelligent Compaction for Asphalt	TON

## SPECIAL NOTE FOR PAVER MOUNTED TEMPERATURE PROFILES

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

**1.0 DESCRIPTION.** Provide a paver mounted infrared temperature equipment to continually monitor the temperature of the asphalt mat immediately behind all paver(s) during the placement operations for all driving lanes (including ramps for Interstates and Parkways) within the project limits. Provide thermal profiles that include material temperature and measurement locations.

**2.0 MATERIALS AND EQUIPMENT.** In addition to the equipment specified in Subsection 403.02 Utilize a thermal equipment supplier that can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verification, and data management and processing as needed during the Project to maintain equipment within specifications and requirements.

Provide operator settings, user manuals, required viewing/export software for analysis. Ensure the temperature equipment will meet the following:

(A) A device with one or more infrared sensors that is capable of measuring in at least 1 foot intervals across the paving width, with a minimum width of 12 feet, or extending to the recording limits of the equipment, whichever is greater. A **Maximum of two (2)** brackets are allowed in the influence area under the sensors. A temperature profile must be made on at least 1 foot intervals longitudinally down the road:

(B) Infrared sensor(s):

(1) Measuring from 32°F to 400°F with an accuracy of  $\pm 2.0\%$  of the sensor reading.

(C) Ability to measure the following:

(1) The placement distance using a Global Positioning System (GPS) or a Distance Measuring Instrument (DMI) and a Global Positioning System (GPS).

(2) Stationing

(D) GPS: Accuracy  $\pm 4$  feet in the X and Y Direction

(E) Latest version of software to collect, display, retain and analyze the mat temperature readings during placement. The software must have the ability to create and analyze:

(1) Full collected width of the thermal profiles,

(2) Paver speed and

(3) Paver stops and duration for the entire Project.

(F) Ability to export data automatically to a remote data server ("the cloud").

At the preconstruction meeting, provide the Department with rights to allow for web access to the data file location. This web-based software must also provide the Department with the ability to download the raw files and software and to convert them into the correct format.

(G) The thermal profile data files must provide the following data in a neat easy to read table format.

(1) Project information including Road Name and Number, PCN, Beginning and Ending MPs.

(2) IR Bar Manufacturer and Model number

(3) Number of Temperature Sensors (N)

(4) Spacing between sensors and height of sensors above the asphalt mat

(5) Total number of individual records taken each day (DATA BLOCK)

(a) Date and Time reading taken

(b) Latitude and Longitude

(c) Distance paver has moved from last test location

(d) Direction and speed of the paver

(e) Surface temperature of each of the sensors

**3.0 CONSTRUCTION.** Provide the Engineer with all required documentation at the pre-construction conference.

(A) Install and operate equipment in accordance with the manufacturer's specifications.

(B) Verify that the temperature sensors are within  $\pm 2.0\%$  using an independent temperature device on a material of known temperature. Collect and compare the GPS coordinates from the equipment with an independent measuring device.

(1) Ensure the independent survey grade GPS measurement device is calibrated to the correct coordinate system (using a control point), prior to using these coordinates to validate the equipment GPS.

(2) The comparison is considered acceptable if the coordinates are within 4 feet of each other in the X and Y direction.

(C) Collect thermal profiles on all Driving Lanes during the paving operation and transfer the data to the "cloud" network or if automatic data transmission is not available, transfer the data to the Engineer at the end of daily paving.

(D) Contact the Department immediately when System Failure occurs. Daily Percent Coverage will be considered zero when the repairs are not completed within two (2) working days of System Failure. The start of this two (2) working day period begins the next working day after System Failure.

(E) Evaluate thermal profile segments, every 150 feet, and summarize the segregation of temperature results. Results are to be labeled as Minimal  $0^{\circ}$ - $25^{\circ}$ F, Moderate  $25.1^{\circ}$ - $50^{\circ}$ F and Severe  $>50^{\circ}$ . Severe readings over 3 consecutive segments or over 4 or more segments in a day warrant investigation on the cause of the differential temperature distribution.

**4.0 MEASUREMENT.** The Department will measure the total area of the driving lanes mapped by the infrared scanners. Full payment will be provided for all driving lanes with greater than 85% coverage. Partial payment will be made for all areas covered from 50% coverage to 85% coverage at the following rate Coverage area percentage X Total bid amount. And area with less than 50% coverage will not be measured for payment.

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

1. Payment is full compensation for all work associated with providing all required equipment, training, and documentation.
2. Delays due to GPS satellite reception of signals or equipment breakdowns will not be considered justification for contract modifications or contract extensions.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24891EC	PAVE MOUNT INFRARED TEMP EQUIPMENT	SQFT

### **SPECIAL NOTE FOR FOG SEAL**

Except as provided herein, conform to all requirements of KYTC 2012 Standard Specifications for Road and Bridge Construction. Section references are to the Standard Specifications. Prior to placing fog seal, the area to be sealed shall be cleaned according to Section 405. Use either CSS-1h or SS1h applied at a rate of 0.12 – 0.15 gallons per square yard. The recommended emulsions are to be in accordance with Section 806 of the 2012 Standard Specifications.

Uniformly apply the asphalt emulsion with an asphalt distributor or approved equipment in accordance with Section 406.03.03b except apply at the rates specified herein. Contrary to Section 406.03.03b, apply emulsion undiluted only.

Adjust operations as necessary and as directed by the engineer to achieve complete, uniform coverage of the application. Correct areas of incomplete coverage by hand spraying or by a second application of material as approved by the engineer.

Payment will be based on the accepted, weighed tons of undiluted emulsion applied as specified. Payment per ton of “Asphalt Emulsion for Fog Seal” will be full compensation for all labor, materials, and equipment necessary to prepare the surface for treatment, application of the emulsion, corrective work, and protection of the emulsion until cured.

### SPECIAL NOTE FOR OVERBAND CRACK SEALING

This special note will apply at each transverse (thermal) crack in the mainline pavement. Other cracks, such as longitudinal cracks, map cracking, etc., will not be crack sealed with this project. Crack sealing is to be done a minimum of two weeks prior to paving the asphalt surface.

- 1. Description.** This specification covers overband crack sealing of thermal cracks.
- 2. Materials.** Crack Sealant shall be Crafcro Polyfiber Type III or equivalent product. Sealant for asphalt pavements shall be single component, pre-mixed and pre-reacted wrapped in plastic, boxed in UV resistant wrapped pallets with net weights and batch numbers on each pallet and box from the manufacturer. The sealant application life when heated to application temperature is approximately 12 to 15 hours. Product shall be able to be reheated to application temperature after initial heat up without specification degradation. Hot applied polymer modified crack sealant: The hot pour liquid crack sealant shall contain 5.0% +/- 1/2% polyester fibers by weight of asphalt components (recycled fibers are not permitted). Hot applied polymer modified crack sealant shall meet ASTM D5167 as follows:

<u>Fiber</u>	<u>Properties</u>
Type	Polyester
Denier	3 to 5
Specific Gravity	1.38f
Min. Melt Temp.	475 F
Tensile Strength	78,000 to 88,000 PSI
Elongation at Break	35 to 38%

<u>Modified Sealant Material</u>	<u>Properties</u>
Cone Penetration, 77 F (ASTM D5329)	30 mm Max.
Safe Heating Temp.	400° F
Flexibility, 1", 90 bend, 10 sec.	Pass @ 0° F
Ductility, 77 F	10 cm min.
Softening Point	200° F
Asphalt Compatibility (ASTM D5329)	Pass

**3. Construction**

- a. Routing of joints will not be required. No sealant material shall be placed until the joints and cracks have been cleaned of all loose dirt and material using a minimum of 125 psi/ 100 cfm air compressor.
  - b. After cleaning, all joints and cracks shall be heat lanced to clean and remove moisture. The heat lance shall be a LAB Model B or approved equal capable of producing air temperatures up to 2500° F. Cracks shall be inspected and approved by the Department prior to placing the sealant material. Final crack cleaning and heat lancing shall not proceed in advance of sealing by more than 1/8 mile.
  - c. The sealant container shall be a thermostatically controlled heated oil jacketed tank with the ability to agitate the sealant. Sealant shall be leveled or struck down with the use of a 3-inch disk attachment at the end of the wand applicator. The overband width of the hot applied modified crack sealant shall not exceed 3 inches in width or 1/8 inch in height above the surrounding pavement unless directed by the engineer.
  - d. Glenzoil 20 Plus, Crafcoc Detack, or equal shall be sprayed on the placed sealant prior to opening to traffic at an application rate of approximately 1 gallon of Glenzoil 20 Plus/Crafcoc Detack per 50 gallons of sealant.
  - e. All debris from the work must be removed prior to opening to traffic.
- 4. Measurement.** The Department will measure the quantity of **OVERBAND CRACK SEALING** in pounds. All work, equipment, and materials associated with placing the crack sealing, in accordance with this note, will not be measured and will be considered incidental to **OVERBAND CRACK SEALING**.
- 5. 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>
23071EN	OVERBAND CRACK SEALING	POUNDS

# GUARDRAIL DELIVERY VERIFICATION SHEET

Contract Id: \_\_\_\_\_

Contractor: \_\_\_\_\_

Section Engineer: \_\_\_\_\_

District & County: \_\_\_\_\_

<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QTY LEAVING PROJECT</u>	<u>QTY RECEIVED@BB YARD</u>
GUARDRAIL (Includes End treatments & crash cushions)	LF	_____	_____
STEEL POSTS	EACH	_____	_____
STEEL BLOCKS	EACH	_____	_____
WOOD OFFSET BLOCKS	EACH	_____	_____
BACK UP PLATES	EACH	_____	_____
CRASH CUSHION	EACH	_____	_____
NUTS, BOLTS, WASHERS	BAG/BCKT	_____	_____
DAMAGED RAIL TO MAINT. FACILITY	LF	_____	_____
DAMAGED POSTS TO MAINT. FACILITY	EACH	_____	_____

**\*Required Signatures before Leaving Project Site**

Printed Section Engineer's Representative \_\_\_\_\_ & Date \_\_\_\_\_

Signature Section Engineer's Representative \_\_\_\_\_ & Date \_\_\_\_\_

Printed Contractor's Representative \_\_\_\_\_ & Date \_\_\_\_\_

Signature Contractor's Representative \_\_\_\_\_ & Date \_\_\_\_\_

**\*Required Signatures after Arrival at Bailey Bridge Yard (All material on truck must be counted & the quantity received column completed before signatures)**

Printed Bailey Bridge Yard Representative \_\_\_\_\_ & Date \_\_\_\_\_

Signature Bailey Bridge Yard Representative \_\_\_\_\_ & Date \_\_\_\_\_

Printed Contractor's Representative \_\_\_\_\_ & Date \_\_\_\_\_

Signature Contractor's Representative \_\_\_\_\_ & Date \_\_\_\_\_

\*\*Payment for the bid item remove guardrail will be based upon the quantities shown in the Bailey Bridge Yard received column. Payment will not be made for guardrail removal until the guardrail verification sheets are electronically submitted to the Section Engineer by the Bailey Bridge Yard Representative.

Completed Form Submitted to Section Engineer Date: \_\_\_\_\_ By: \_\_\_\_\_

**SPECIAL NOTE FOR LONGITUDINAL PAVEMENT JOINT ADHESIVE**

1. DESCRIPTION. This specification covers the requirements and practices for applying an asphalt adhesive material to the longitudinal joint of the surface course of an asphalt pavement. Apply the adhesive to the face of longitudinal joint between driving lanes for the first lane paved. Then, place and compact the adjacent lane against the treated face to produce a strong, durable, waterproof longitudinal joint.
2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Joint Adhesive. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide an adhesive conforming to the following requirements:

Property	Specification	Test Procedure
Viscosity, 400 ° F (Pa·s)	4.0 – 10.0	ASTM D 4402
Cone Penetration, 77 ° F	60 – 100	ASTM D 5329
Flow, 140 ° F (mm)	5.0 max.	ASTM D 5329
Resilience, 77 ° F (%)	30 min.	ASTM D 5329
Ductility, 77 ° F (cm)	30.0 min.	ASTM D 113
Ductility, 39 ° F (cm)	30.0 min.	ASTM D 113
Tensile Adhesion, 77 ° F (%)	500 min.	ASTM D 5329, Type II
Softening Point, ° F	171 min.	AASHTO T 53
Asphalt Compatibility	Pass	ASTM D 5329

Ensure the temperature of the pavement joint adhesive is between 380 and 410 °F when the material is extruded in a 0.125-inch-thick band over the entire face of the longitudinal joint.

2.2. Equipment.

2.2.1 Melter Kettle. Provide an oil-jacketed, double-boiler, melter kettle equipped with any needed agitation and recirculating systems.

2.2.2 Applicator System. Provide a pressure-feed-wand applicator system with an applicator shoe attached.

2.3 Personnel. Ensure a technical representative from the manufacturer of the pavement joint adhesive is present during the initial construction activities and available upon the request of the Engineer.

3. CONSTRUCTION.

3.1 Surface Preparation. Prior to the application of the pavement joint adhesive, ensure the face of the longitudinal joint is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the joint face by the use of compressed air.



Ensure this preparation process occurs shortly before application to prevent the return of debris on the joint face.

3.2 Pavement Joint Adhesive Application. Ensure the ambient temperature is a minimum of 40 ° F during the application of the pavement joint adhesive. Prior to applying the adhesive, demonstrate competence in applying the adhesive according to this note to the satisfaction of the Engineer. Heat the adhesive in the melter kettle to the specified temperature range. Pump the adhesive from the melter kettle through the wand onto the vertical face of the cold joint. Apply the adhesive in a continuous band over the entire face of the longitudinal joint. Do not use excessive material in either thickness or location. Ensure the edge of the extruded adhesive material is flush with the surface of the pavement. Then, place and compact the adjacent lane against the joint face. Remove any excessive material extruded from the joint after compaction (a small line of material may remain).

3.3 Pavement Joint Adhesive Certification. Furnish the joint adhesive's certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a random sample of pavement joint adhesive from each manufacturer's lot of material. Extrude two 5 lb. samples of the heated material and forward the sample to the Division of Materials for testing. Reynolds oven bags, turkey size, placed inside small cardboard boxes or cement cylinder molds have been found suitable. Ensure the product temperature is 400°F or below at the time of sampling.

4. MEASUREMENT. The Department will measure the quantity of Pavement Joint Adhesive in linear feet. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of Pavement Joint Adhesive, the cleaning of the joint face, or furnishing and placing the adhesive. The Department will consider all such items incidental to the Pavement Joint Adhesive.
5. PAYMENT. The Department will pay for the Pavement Joint Adhesive at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

11N

Pavement Joint Adhesive Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Joint Adhesive Referenced in Subsection 2.1.1						
Viscosity, 400 ° F (Pa•s) ASTM D 3236	4.0-10.0	3.5-10.5	3.0-3.4 10.6-11.0	2.5-2.9 11.1-11.5	2.0-2.4 11.6-12.0	≤1.9 ≥ 12.1
Cone Penetration, 77 ° F ASTM D 5329	60-100	57-103	54-56 104-106	51-53 107-109	48-50 110-112	≤ 47 ≥ 113
Flow, 140 ° F (mm) ASTM D 5329	≤ 5.0	≤ 5.5	5.6-6.0	6.1-6.5	6.6-7.0	≥ 7.1
Resilience, 77 ° F (%) ASTM D 5329	≥ 30	≥ 28	26-27	24-25	22-23	≤ 21
Tensile Adhesion, 77 ° F (%) ASTM D 5329	≥ 500	≥ 490	480-489	470-479	460-469	≤ 459
Softening Point, ° F AASHTO T 53	≥ 171	≥ 169	166-168	163-165	160-162	≤ 159
Ductility, 77 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9
Ductility, 39 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9

Code  
20071EC

Pay Item  
Joint Adhesive

Pay Unit  
Linear Foot

May 7, 2014

January 26, 2017

## SPECIAL NOTE FOR FIBER REINFORCEMENT OF ASPHALT

### PART 1 – GENERAL

#### 1.1 DESCRIPTION

This Section includes specifications for furnishing all materials, equipment, labor, and incidentals for mixing aramid fiber reinforcements to hot mix asphalt.

#### 1.2 DEFINITIONS

- A. HMA- hot mix asphalt, without aramid fiber.
- B. WMA- warm mix asphalt, without aramid fiber.
- C. Reinforced HMA - hot mix asphalt including aramid fibers properly proportioned, uniformly mixed and coated with asphalt.
- D. Aramid fiber - pure aramid fiber meeting the material properties of this specification, without additive materials.
- E. Delivery material(s) - the material(s) combined with the pure aramid fiber to facilitate Aramid fiber and HMA/WMA proportioning, uniform mixing with the HMA/WMA, and asphalt coating of the aramid fibers.
- F. Aramid product - the aramid supplier's mixture of pure aramid fiber and delivery material(s).
- G. Manufacturer - the company that produces the aramid fiber from raw materials.
- H. Supplier - the company that offers an aramid product.

### PART 2 – PRODUCT

#### 2.1 MATERIALS

Meet the following aramid fiber properties.

Property	Measure	Standard
Material	Aramid	ASTM D276
Form	Monofilament fibers	Manufacturer Certification
Length	0.75 inches (+/- 10%)	Manufacturer Cert.
Specific Gravity	1.44	ASTM D276
Minimum Tensile Strength	400,000 psi	ASTM D3379
Maximum Tensile Elongation	1.8 %	ASTM D3379
Degradation Temperature	800 degrees F	ASTM D276
Acid and Alkali Resistance	Inert	Manufacturer Cert.

#### 2.2 SUBMITTALS

Submit the following.

- A. Identify the mixing plant.
- B. Provide a specification sheet from the aramid fiber manufacturer.
- C. Provide the following from the aramid product supplier at least three weeks prior

January 26, 2017

to HMA/WMA production.

1. The supplier's specified mix rate for the aramid product.
2. Certification that the amount of aramid fiber in the aramid product will be between 2.1 and 4.0 ounces of pure aramid fiber for each ton of hot mix asphalt.
3. Evidence showing how many times, if any, the supplier's fiber product has been successfully produced at the asphalt plant to be used for the project.
4. Proven method of introducing the aramid fibers into the hot mix asphalt which will not cause the aramid fibers to become airborne.

### **2.3 JOB MIX FORMULA**

When aramid fiber is required as a mixture ingredient, modification to the job mix formula is not required.

## **PART 3 – EXECUTION**

### **3.1 CONSTRUCTION REQUIREMENTS**

Store aramid product in a dry environment and do not allow them to be in contact with moisture.

Mix 3.0 ounces (+/- 1.0 ounces) of aramid fibers per ton of asphalt. The weight applied is for pure aramid fibers only, weight of any delivery materials is not considered.

Have a fiber supplier's representative on site during the first day of production mixing. This requirement can be waived if fiber supplier and HMA/WMA producer can supply evidence of supplier's brand of fiber product being successfully produced by the HMA/WMA producer. The fiber supplier's representative may be on site for additional days as requested by the Engineer.

Introduce the aramid product as follows:

#### **1. Batch Plant**

When a batch type plant is used, add the aramid product dosage to the aggregate in the weigh hopper. This may be done with loose fibers and a fiber metering device, or may be done by using manual dosing equipment. If necessary, increase the batch dry mixing time to ensure the aramid fibers are uniformly distributed prior to the injection of asphalt cement into the mixer.

#### **2. Drum Plant**

When a continuous or drier-drum type plant is used, add the aramid product to the RAP material to uniformly disperse with the aggregate and injected asphalt. Use a separate aramid product metering device feed system to proportion by weight of total mix,

January 26, 2017

the required percentage of fiber reinforcement into the mixture. Control the aramid product metering system with a proportioning device to meet the dosing requirements.

When a continuous or drier-drum type plant is used for limited production volumes, the addition of the aramid product may be done by using manual measuring tools or equipment and adding them directly onto the RAP belt or into the RAP opening on the plant. Because this is not an automated process, a written protocol must be supplied by the producer to demonstrate how they will attain the dosage requirement, and documentation must be supplied by the material manufacturer assuring this method will produce the desired uniform aramid fiber distribution.

Mix the aramid fiber with the aggregate longer, if needed, to allow thorough distribution of aramid fibers at the end of the mixing process and to promote asphalt coating of individual strands of aramid fiber. At the start of any fiber mixing, visually observe the reinforced HMA/WMA at the plant and in first three trucks at the point of discharge and prior to delivery to the job site. Observation shall include using a shovel or other device. Look for proper distribution of aramid fibers and make mixing adjustments if needed.

WMA: Use of a feeder system will be required for both Drum and Batch plants when producing Warm Mix Asphalt to ensure correct distribution and coating of the aramid fibers. This requirement maybe waved if the asphalt producer can demonstrate complete melting of the delivery material and proper incorporation of the aramid fibers into the WMA.

### 3.2 ACCEPTANCE

Acceptance of the reinforced HMA/WMA will include the following factors:

1. Aramid fiber is properly proportioned based on documentation comparing fiber feed to HMA/WMA mix production. A log of the total amount of aramid fibers applied certified by fiber manufacturer/supplier shall be required daily.
2. By visual inspection at the end of the mixing process, there is no clumping of aramid fiber or aramid delivery product and the aramid fibers are uniformly distributed.
3. All other mixture and density requirement of the asphalt as detailed in the Standard Specifications, current edition, shall apply.

### PART 4 - MEASUREMENT AND PAYMENT

The Department will measure the quantity of Fiber Reinforcement for HMA/WMA as ton of asphalt placed with fibers. Each ton of asphalt placed with the aramid fibers according to this special note will be measured and paid for at the contract unit bid price per ton, and shall include full compensation for furnishing all labor, tools, equipment, and incidentals for doing all the work involved in

January 26, 2017

adding the fibers to HMA/WMA.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24785EC	Fiber Reinforcement for HMA	Tons

## **SPECIAL NOTE FOR HMA ELECTRONIC DELIVERY MANAGEMENT SYSTEM (HMA e-Ticketing)**

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

**1.0 DESCRIPTION.** Incorporate a GPS Fleet Management System for all HMA delivered to the project in order to monitor, track, and report loads of HMA during the construction processes from the point of measurement and loading to the point of incorporation to the project.

**2.0 MATERIALS AND EQUIPMENT.** Submit to the Engineer for approval, no fewer than 30 days prior to HMA placement activities, a GPS fleet management system supplier that can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verifications, and data management and processing as needed during the Project to maintain equipment.

Provide operator settings, user manuals, training videos, and required viewing/export software for review. Provide equipment that will meet the following:

1. A wireless fleet management or GPS device that is capable of tracking all delivery trucks (both company-owned and third-party) must be installed on all trucks and equipment (dump trucks, belly dumps, side-load dumps, transfer vehicles, pavers, or any other trucks/vehicles) used to transfer and incorporate HMA into the project. KYTC personnel shall have the ability to access Real Time monitoring through the use of a mobile device such as an iPad, smartphone, etc.
2. The fleet management system shall be fully integrated with the Contractor's Load Read-Out scale system at the HMA plant site.
3. The fleet management system shall have the ability to measure and track vehicles and their contents (weights and material types) continuously from the plant site to the project site. The system shall have internal battery backup capabilities due to loss of power, and have the ability to store data if GPS connectivity is lost and transmit that same data when unit re-establishes connectivity. To be considered continuous, no two data points shall be more than 60 seconds apart unless the vehicle is stopped. Duration of stop time for any reason shall be recorded.

**3.0 CONSTRUCTION.** Provide the Engineer with the manufacturer's specifications and all required documentation for data access at the pre-construction conference.

### **A. Construction Requirements**

1. Install and operate equipment in accordance with the manufacturer's specifications.
2. Verify the GPS is working within the requirements of this Special Note.

### **B. Data Deliverables**

Provide to the Engineer a means in which to gather report summaries by way of iOS apps, web pages, or any other method at the disposal of the Engineer. The Engineer may request data at any time during paving operations.

#### **1. Real-time Continuous Data Items**

Provide the Engineer access to a GIS map-based data viewer which displays the following information in real-time with a web-based system compatible with iOS and Windows environments.

- Each Truck
  - UniqueTruck ID
  - Truck status
    - Time At Source

- Time At Destination
- Time At Paver
- Time At Scale
- Time to and from plant/job
- Time Stopped with Engine Running
- Time of last transmission
- Location (Latitude and Longitude in decimal degrees to nearest 0.0000001) every 60 seconds
- Description of Material being transported (i.e. asphalt base, asphalt surface)
- Mix Design Number
- Net Weight of material being transported to the nearest 0.01 ton
- Running Daily Total of Net Weight of material being transported to nearest 0.01 ton.
- Project Number

- Scale Location
- Project Location
- Point of Delivery (i.e. paver)

**2. Daily Summary**

The following summary information shall be provided to the Engineer electronically within 4 hours of beginning operations on the next working day

- For each Material
  - List of Individual Loads
    - Contractor Name
    - Project Number
    - Unique Truck ID
    - Net Weight For Payment (nearest 0.01 tons)
    - Date
    - Mix Temperature at Time of Loading, Fahrenheit (to be key entered by plant)
    - Time Loaded
    - Time Unloaded
    - Delivery Location (Latitude/Longitude in decimal degrees to nearest 0.0000001)
- For each Bid Item
  - Total Quantity for Payment (nearest 0.01 tons)

**4.0 MEASUREMENT.** The Department will measure the HMA electronic delivery management system as a lump sum item.

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

1. Payment is full compensation for all work associated with providing all required equipment, training, and documentation.
2. Delays due to GPS satellite reception of signals or equipment breakdowns will not be considered justification for contract modifications or contract extensions.
3. Payment will be full compensation for costs related to providing the GPS system, including all equipped pavers and transfer vehicles, integration with plant load-out systems, and any software required for the construction and reporting process. All quality control procedures including the GPS systems representative's technical support and on-site training shall be included in the Contract lump sum price.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
-------------	-----------------	-----------------



24986EC

HMA ELECTRONIC DELIVERY MANAGEMENT SYSTEM

LS



KENTUCKY TRANSPORTATION CABINET  
 Department of Highways  
 DIVISION OF RIGHT OF WAY & UTILITIES

TC 62-226  
 Rev. 01/2016  
 Page 1 of 1

RIGHT OF WAY CERTIFICATION

<input checked="" type="checkbox"/> Original	<input type="checkbox"/> Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
5-20002	Henry	FD52 052 0071 024-029	NHPP IM 0711 (122)
PROJECT DESCRIPTION			

Pavement Rehab on I-71, MP 24.727-28.173

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

**Condition # 1 (Additional Right of Way Required and Cleared)**  
 All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.

**Condition # 2 (Additional Right of Way Required with Exception)**  
 The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract

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

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

Notes/ Comments (Use Additional Sheet if necessary)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Tom Boykin
Signature		Signature	<i>[Signature]</i>
Date		Date	7-24-18
Right of Way Director		FHWA	
Printed Name	DM Loy	Printed Name	No Signature Required
Signature	<i>[Signature]</i>	Signature	as per FHWA-KYTC
Date	24 July 2018	Date	Current Stewardship Agreement

## UTILITIES AND RAIL CERTIFICATION NOTE

**HENRY COUNTY, NHPP IM 0711 (122)**  
**FD52 052 0071 024-029**  
**I-71 PAVEMENT REHAB (MP 24.727 – 28.173)**  
**SIX YEAR PLAN ITEM NUMBER 05-20002.00**

*Utility coordination efforts conducted by the project sponsor have determined that no significant utility relocation work is required to complete the project. Any work pertaining to these utility facilities is defined in the bid package and is to be carried out as instructed by the Kentucky Transportation Cabinet. The contractor will be responsible for any coordination or adjustments that are discussed or quantified in the proposal.*

**THE FOLLOWING RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED**

**No Rail Involved**     **Minimal Rail Involved (See Below)**     **Rail Involved (See Below)**

**UNDERGROUND FACILITY DAMAGE PROTECTION – BEFORE YOU DIG**

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor’s responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. The contractor is instructed to contact KY 811 for the location of existing underground utilities. Contact shall be made a minimum of two (2) and no more than ten (10) business days prior to excavation.

The contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY 811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom are to be contacted through their individual Protection Notification Center. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area. Non-compliance with these directives can result in the enforcement of penalties.

**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.

## UTILITIES AND RAIL CERTIFICATION NOTE

**HENRY COUNTY, NHPP IM 0711 (122)**  
**FD52 052 0071 024-029**  
**I-71 PAVEMENT REHAB (MP 24.727 – 28.173)**  
**SIX YEAR PLAN ITEM NUMBER 05-20002.00**

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.

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

### AREA UTILITIES CONTACT LIST AS PROVIDED BY KY 811

<u>Utility Company/Agency</u>	<u>Contact Name</u>	<u>Contact Information</u>
1. LG&E KU (Electric) 820 West Broadway Louisville, KY 40202 LG&E Emergency Number (502) 589-1444 LG&E and KU Emergency Number 1-800-331-7370	Tsion Menkir	work: (502) 333-1882 Tsion.Menkir@LGE-KU.com Bill Harper Work: (502) 333-1818 <a href="mailto:Bill.Harper@LGE-KU.com">Bill.Harper@LGE-KU.com</a>
2. LG&E (Gas) 820 West Broadway Louisville, KY 40202 Gas Emergency Number (502) 589-5511 LG&E and KU Emergency Number 1-800-331-7370	Mike Kress	work: (502) 364-8364 <a href="mailto:Mike.Kress@LGE-KU.com">Mike.Kress@LGE-KU.com</a> Bill Harper Work: (502) 333-1818 <a href="mailto:Bill.Harper@LGE-KU.com">Bill.Harper@LGE-KU.com</a>
3. AT&T KY 1340 E. John Rowan Blvd Bardstown, KY 40004	Scott Roche	<a href="mailto:sr8832@att.com">sr8832@att.com</a> Office - (502) 348-4528 Cell – (502) 827-4703
4. Texas Gas Transmission, LLC 2332 Hwy 60 West Hardinsburg, KY 40143  10327 Gaslight Way Louisville, KY 40299	Kevin Carman	Kevin.Carman@bwpmlp.com Cell: (270) 779-3893  John Weaver <a href="mailto:John.Weaver@BWPMLP.com">John.Weaver@BWPMLP.com</a> (502) 438-2407 Howard Menser <a href="mailto:Howard.Menser@BWPMLP.com">Howard.Menser@BWPMLP.com</a>

## UTILITIES AND RAIL CERTIFICATION NOTE

**HENRY COUNTY, NHPP IM 0711 (122)**  
**FD52 052 0071 024-029**  
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**SIX YEAR PLAN ITEM NUMBER 05-20002.00**

- |     |   |  |
|-----|---|--|
|     |   | Office: (502) 491-0251<br>Cell: (502) 396-2418   |
| 5.  | Mid - Valley Pipeline Company<br>4910 Limaburg Road<br>Burlington, KY 41005<br>FAX (866) 699-1185   | Richard (Todd) Calfee<br>Office: (859) 371-4469 x14<br>Cell: (859) 630-8271<br><a href="mailto:RTCAlfee@SunocoLogistics.com">RTCAlfee@SunocoLogistics.com</a>  |
| 6.  | AT&T Legacy<br>7555 E. Pleasant Valley Rd. – Suite 140<br>Independence, OH 44131  | Mike Diederich<br><a href="mailto:MD4145@att.com">MD4145@att.com</a><br>Phone - (216) 750-0135<br>Cell - (216) 212-8556<br>Don Garr<br><a href="mailto:DRGarr@Hughes.net">DRGarr@Hughes.net</a><br>Cell - (502) 741-8374 |
| 7.  | Henry County Water District #2<br>P.O. Box 219, 8955 Main Street<br>Campbellsburg, KY 40011<br>(502) 532-6279<br>(502) 532-6280<br>(502) 532-7025 | Keith Morris<br><a href="mailto:KMorris@HCWD2.com">KMorris@HCWD2.com</a><br>Barry Woods<br><a href="mailto:BWoods@HCWD2.com">BWoods@HCWD2.com</a>  |
| 8.  | Carroll County Water District<br>205 Main Cross St.<br>P O Box 350<br>Ghent, KY 41045   | Jim Smith<br><a href="mailto:CarrollCountyWat@BellSouth.net">CarrollCountyWat@BellSouth.net</a><br>(502) 347-9470  |
| 9.  | City of Eminence Water and Sewer<br>P.O. Box 163, 5115 South Main Street<br>Eminence, KY 40019  | Matt McAllister, Public Works Director<br><a href="mailto:matt@eminence.ky.net">matt@eminence.ky.net</a><br>(502) 845-4215   |
| 10. | City of New Castle Water Works<br>City Hall<br>P. O. Box 390<br>New Castle, KY 40050  | Scot Treece<br><a href="mailto:ScotTreece@MW.TWCBC.com">ScotTreece@MW.TWCBC.com</a><br>Office: (502) 845-5750<br>Cell: (502) 667-0342  |
| 11. | Shelby Energy Cooperative<br>P.O. Box 311, 620 Old Finchville Road<br>Shelbyville, KY 40065<br>(502) 633-4420                                     | Jason Ginn<br><a href="mailto:Jason@ShelbyEnergy.com">Jason@ShelbyEnergy.com</a><br>cell: 502-643-2778   |
| 12. | Charter Communications<br>10168 Linn Station Road<br>Suite 120  | Deno Barbour<br>(502) 664-7395 – Cell<br>(502) 357-4376 – Office   |

## UTILITIES AND RAIL CERTIFICATION NOTE

**HENRY COUNTY, NHPP IM 0711 (122)**  
**FD52 052 0071 024-029**  
**I-71 PAVEMENT REHAB (MP 24.727 – 28.173)**  
**SIX YEAR PLAN ITEM NUMBER 05-20002.00**

Louisville, KY 40223

[Dwight.Barbour@charter.com](mailto:Dwight.Barbour@charter.com)

Kevin Mercer  
(502) 817-5055 – Cell  
(502) 357-4724 - Office  
[kevin.mercer@charter.com](mailto:kevin.mercer@charter.com)  
Richard Bast  
(502) 817-0734 – Cell  
(502) 357-4118 - Office  
[richard.bast@charter.com](mailto:richard.bast@charter.com)

13. East Kentucky Power Coop  
4775 Lexington Road  
Winchester, KY 40391

Or

P O Box 707  
Winchester, KY 40391

Garry Harvey  
(859)745-9601  
[Garry.Harvey@EKPC.coop](mailto:Garry.Harvey@EKPC.coop)  
Barry Warner  
[Barry.Warner@EKPC.coop](mailto:Barry.Warner@EKPC.coop)  
(859) 745-9304

14. Bluegrass Energy  
P O Box 990  
1201 Lexington Rd.  
Nicholasville, KY 40356

Tony Smith, Field Engineering  
[tonys@bgenergy.com](mailto:tonys@bgenergy.com)  
(859) 885-2134  
Matt Collett, Staking Technician  
[mattc@bgenergy.com](mailto:mattc@bgenergy.com)  
(859) 887-8110  
Greg Harrington, COO  
[greggh@bgenergy.com](mailto:greggh@bgenergy.com)  
(859) 885-2114

15. Crown Castle Network Operations  
10300 Ormsby Park Place  
Suite 501  
Louisville, KY 40223

Rebecca Gray  
[rebecca.gray@CrownCastle.com](mailto:rebecca.gray@CrownCastle.com)  
(502)318-1313  
Chris Gladstone  
[Chris.Gladstone@CrownCastle.com](mailto:Chris.Gladstone@CrownCastle.com)  
(502) 689-2162

16. Kentucky Data Link (KDL now Windstream)  
111 S. Main St.  
Elizabethtown, KY 42071

James Galvin  
Office: 270-765-1818  
Mobile: 270-748-9249  
[James.Galvin@windstream.com](mailto:James.Galvin@windstream.com)  
Mark Ware  
[Mark.Ware@windstream.com](mailto:Mark.Ware@windstream.com)

Timothy Gibson  
[Timothy.Gibson@Windstream.com](mailto:Timothy.Gibson@Windstream.com)  
Emergency contact ONLY

## UTILITIES AND RAIL CERTIFICATION NOTE

**HENRY COUNTY, NHPP IM 0711 (122)**  
**FD52 052 0071 024-029**  
**I-71 PAVEMENT REHAB (MP 24.727 – 28.173)**  
**SIX YEAR PLAN ITEM NUMBER 05-20002.00**

17. Carrollton Utilities  
225 6<sup>th</sup> Street  
Carrollton, KY 41008
- Terry Roach (Utility Engineer)  
[TRoach@carrolltonutilities.com](mailto:TRoach@carrolltonutilities.com)  
(502) 732-7055
18. Kentucky Wired  
209 St. Clair Street, 4<sup>th</sup> Floor  
Frankfort, KY 40601
- Mike Hayden, Chief Operating Officer  
Office 502-782-2535  
[Mike.Hayden@ky.gov](mailto:Mike.Hayden@ky.gov)
- Harold Waters  
Lead Engineering Specialist, Black&Veatch  
Office (913) 458-1584  
Cell (502) 612-8495  
[watershw@bv.com](mailto:watershw@bv.com)

**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 2016*.

## **SUPPLEMENTAL SPECIFICATIONS**

The contractor shall use the Supplemental Specifications that are effective at the time of letting.  
The Supplemental Specifications can be found at the following link:

<http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx>

## **PART III**

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

FHWA-1273 -- Revised May 1, 2012

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

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

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

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

**ATTACHMENTS**

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

**II. NONDISCRIMINATION**

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

**I. GENERAL**

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

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

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

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

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

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

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

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

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

**6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

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

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

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

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

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

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

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

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

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

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

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

**10. Assurance Required by 49 CFR 26.13(b):**

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

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

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

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

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

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

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

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

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

**III. NONSEGREGATED FACILITIES**

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

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

**IV. DAVIS-BACON AND RELATED ACT PROVISIONS**

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

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

**1. Minimum wages**

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

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

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

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

- (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (ii) The classification is utilized in the area by the construction industry; and
- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

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

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

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

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

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

## 2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

## 3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

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

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

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

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



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

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

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

#### 4. Apprentices and trainees

##### a. Apprentices (programs of the USDOL).

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

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

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

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

##### b. Trainees (programs of the USDOL).

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

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

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

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

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

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

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

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

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

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

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

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.**

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

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

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

**V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

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

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

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

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

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

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

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

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

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

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

## VII. SAFETY: ACCIDENT PREVENTION

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

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

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

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

## VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

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

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

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

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

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

##### **1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

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

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

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

\* \* \* \* \*

**2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**2. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

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

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

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

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

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

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

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

**KENTUCKY TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS**

**EMPLOYMENT REQUIREMENTS  
RELATING TO  
NONDISCRIMINATION OF EMPLOYEES  
(APPLICABLE TO FEDERAL-AID SYSTEM CONTRACTS)**

**AN ACT OF THE KENTUCKY GENERAL ASSEMBLY  
TO PREVENT DISCRIMINATION IN EMPLOYMENT**

**KRS CHAPTER 344  
EFFECTIVE JUNE 16, 1972**

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017



### Standard Title VI/Non-Discrimination Assurances

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration** to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration** may determine to be appropriate, including, but not limited to:
  - a. withholding payments to the contractor under the contract until the contractor complies; and/or
  - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration** may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

### Standard Title VI/Non-Discrimination Statutes and Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*)

## EXECUTIVE BRANCH CODE OF ETHICS

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

KRS 11A.040 (7) provides:

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

KRS 11A.040 (9) states:

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

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

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

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

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

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: January 27, 2017

General Decision Number: KY180100 08/17/2018 KY100

Superseded General Decision Number: KY20170100

State: Kentucky

Construction Type: Highway

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

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/05/2018
1	01/19/2018
2	03/23/2018
3	04/20/2018
4	06/01/2018
5	06/15/2018
6	06/22/2018
7	07/13/2018
8	08/17/2018

BRIN0004-003 06/01/2017

BRECKENRIDGE COUNTY

Rates Fringes

BRICKLAYER.....\$ 26.80 12.38  
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BRKY0001-005 06/01/2017

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

	Rates	Fringes
BRICKLAYER.....	\$ 26.80	12.38

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BRKY0002-006 06/01/2017

BRACKEN, GALLATIN, GRANT, MASON & ROBERTSON COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 27.81	13.01

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BRKY0007-004 06/01/2017

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

	Rates	Fringes
BRICKLAYER.....	\$ 32.98	19.02

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BRKY0017-004 06/01/2017

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

	Rates	Fringes
BRICKLAYER.....	\$ 26.47	12.76

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CARP0064-001 05/01/2015

	Rates	Fringes
CARPENTER.....	\$ 27.50	16.06
Diver.....	\$ 41.63	16.06
PILEDRIVERMAN.....	\$ 27.75	16.06

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ELEC0212-008 06/04/2018

BRACKEN, GALLATIN and GRANT COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 28.39	18.98

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ELEC0212-014 11/27/2017

BRACKEN, GALLATIN & GRANT COUNTIES:

	Rates	Fringes
Sound & Communication Technician.....	\$ 23.55	11.26
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ELEC0317-012 06/01/2018		

BOYD, CARTER, ELLIOT & ROWAN COUNTIES:

	Rates	Fringes
ELECTRICIAN (Wiremen) Cable Splicer.....	\$ 32.68	18.13
Electrician.....	\$ 33.75	20.03
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ELEC0369-007 05/30/2018		

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

	Rates	Fringes
ELECTRICIAN.....	\$ 31.66	17.01
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ELEC0575-002 05/28/2018		

FLEMING, GREENUP, LEWIS & MASON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 32.45	16.43
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ENGI0181-018 07/01/2017		

	Rates	Fringes
POWER EQUIPMENT OPERATOR GROUP 1.....	\$ 31.95	15.15
GROUP 2.....	\$ 29.09	15.15
GROUP 3.....	\$ 29.54	15.15
GROUP 4.....	\$ 28.77	15.15

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - A-Frame Winch Truck; Auto Patrol; Backfiller;  
Batcher Plant; Bituminous Paver; Bituminous Transfer  
Machine; Boom Cat; Bulldozer; Mechanic; Cableway; Carry-All  
Scoop; Carry Deck Crane; Central Compressor Plant; Cherry  
Picker; Clamshell; Concrete Mixer (21 cu. ft. or Over);  
Concrete Paver; Truck-Mounted Concrete Pump; Core Drill;  
Crane; Crusher Plant; Derrick; Derrick Boat; Ditching &  
Trenching Machine; Dragline; Dredge Operator; Dredge  
Engineer; Elevating Grader & Loaders; Grade-All; Gurries;  
Heavy Equipment Robotics Operator/Mechanic; High Lift;  
Hoe-Type Machine; Hoist (Two or More Drums); Hoisting  
Engine (Two or More Drums); Horizontal Directional Drill

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

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft.); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (When used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted Concrete Pump; Skid Steer Machine with all Attachments; Switchman or Brakeman; Throttle Valve Person; Tractair & Road Widening Trencher; Tractor (50 H.P. or Over); Truck Crane Oiler; Tugger; Welding Machine; Well Points; & Whirley Oiler

GROUP 3 - All Off Road Material Handling Equipment, including Articulating Dump Trucks; Greaser on Grease Facilities servicing Heavy Equipment

GROUP 4 - Bituminous Distributor; Burlap & Curing Machine; Cement Gun; Concrete Saw; Conveyor; Deckhand Oiler; Grout Pump; Hydraulic Post Driver; Hydro Seeder; Mud Jack; Oiler; Paving Joint Machine; Power Form Handling Equipment; Pump; Roller (Earth); Steerman; Tamping Machine; Tractor (Under 50 H.P.); & Vibrator

CRANES - with booms 150 ft. & Over (Including JIB), and where the length of the boom in combination with the length of the piling leads equals or exceeds 150 ft. - \$1.00 over Group 1 rate

EMPLOYEES ASSIGNED TO WORK BELOW GROUND LEVEL ARE TO BE PAID 10% ABOVE BASIC WAGE RATE. THIS DOES NOT APPLY TO OPEN CUT WORK.

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\* IRON0044-009 06/01/2018

BRACKEN, GALLATIN, GRANT, HARRISON, ROBERTSON,  
BOURBON (Northern third, including Townships of Jackson, Millersburg, Ruddel Mills & Shawhan);  
CARROLL (Eastern third, including the Township of Ghent);  
FLEMING (Western part, excluding Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford);  
MASON (Western two-thirds, including Townships of Dover,

Lewisburg, Mays Lick, Maysville, Minerva, Moranburg, Murphysville, Ripley, Sardis, Shannon, South Ripley & Washington);  
 NICHOLAS (Townships of Barefoot, Barterville, Carlisle, Ellisville, Headquarters, Henryville, Morningglory, Myers & Oakland Mills);  
 OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook, Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita & Wheatley);  
 SCOTT (Northern two-thirds, including Townships of Biddle, Davis, Delaplain, Elmville, Longlick, Muddy Ford, Oxford, Rogers Gap, Sadieville, Skinnersburg & Stonewall)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 26.76	21.20
Structural.....	\$ 28.17	21.20

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 IRON0070-006 06/01/2018

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

	Rates	Fringes
IRONWORKER.....	\$ 28.79	22.50

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 IRON0769-007 06/01/2018

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



	Rates	Fringes
IRONWORKER		
ZONE 1.....	\$ 31.67	25.27
ZONE 2.....	\$ 31.67	25.27
ZONE 3.....	\$ 31.67	25.27

ZONE 1 - (no base rate increase) Up to 10 mile radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 2 - (add \$0.40 per hour to base rate) 10 to 50 mile radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 3 - (add \$2.00 per hour to base rate) 50 mile radius & over of Union Hall, 1643 Greenup Ave, Ashland, KY.

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LABO0189-003 07/01/2017

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

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.14	13.29
GROUP 2.....	\$ 23.39	13.29
GROUP 3.....	\$ 23.44	13.29
GROUP 4.....	\$ 24.04	13.29

LABORERS CLASSIFICATIONS

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

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman;  
Gunnite Operator & Mixer; Grout Pump Operator; Side Rail  
Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free  
Air); Water Blaster

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

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LABO0189-008 07/01/2017

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

Rates Fringes

Laborers:

GROUP 1.....	\$ 23.14	13.29
GROUP 2.....	\$ 23.39	13.29
GROUP 3.....	\$ 23.44	13.29
GROUP 4.....	\$ 24.04	13.29

LABORERS CLASSIFICATIONS

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

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer);  
Brickmason Tender; Mortar Mixer Operator; Scaffold Builder;  
Burner & Welder; Bushhammer; Chain Saw Operator; Concrete  
Saw Operator; Deckhand Scow Man; Dry Cement Handler;  
Environmental - Nuclear, Radiation, Toxic & Hazardous Waste  
- Level C; Forklift Operator for Masonary; Form Setter;  
Green Concrete Cutting; Hand Operated Grouter & Grinder  
Machine Operator; Jackhammer; Pavement Breaker; Paving  
Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven  
Georgia Buggy & Wheel Barrow; Power Post Hole Digger;  
Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind  
Trencher; Sand Blaster; Concrete Chipper; Surface Grinder;  
Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman;  
Gunnite Operator & Mixer; Grout Pump Operator; Side Rail  
Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free

Air); Water Blaster

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

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LABO0189-009 07/01/2017

BRECKINRIDGE & GRAYSON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 24.22	12.21
GROUP 2.....	\$ 24.47	12.21
GROUP 3.....	\$ 24.52	12.21
GROUP 4.....	\$ 25.12	12.21

LABORERS CLASSIFICATIONS

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

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer);  
Brickmason Tender; Mortar Mixer Operator; Scaffold Builder;  
Burner & Welder; Bushhammer; Chain Saw Operator; Concrete  
Saw Operator; Deckhand Scow Man; Dry Cement Handler;  
Environmental - Nuclear, Radiation, Toxic & Hazardous Waste  
- Level C; Forklift Operator for Masonary; Form Setter;  
Green Concrete Cutting; Hand Operated Grouter & Grinder  
Machine Operator; Jackhammer; Pavement Breaker; Paving  
Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven  
Georgia Buggy & Wheel Barrow; Power Post Hole Digger;  
Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind  
Trencher; Sand Blaster; Concrete Chipper; Surface Grinder;  
Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman;  
Gunnite Operator & Mixer; Grout Pump Operator; Side Rail  
Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free  
Air); Water Blaster

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

Blasters; Troxler & Concrete Tester if Laborer is Utilized

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PAIN0012-005 06/11/2005

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

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

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PAIN0012-017 05/01/2015

BRACKEN, GALLATIN, GRANT, MASON & OWEN COUNTIES:

	Rates	Fringes
PAINTER (Heavy & Highway Bridges - Guardrails - Lightpoles - Striping)		
Bridge Equipment Tender and Containment Builder.....\$	20.73	9.06
Brush & Roller.....\$	23.39	9.06
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement.....\$	24.39	9.06
Sandblasting & Water Blasting.....\$	24.14	9.06
Spray.....\$	23.89	9.06

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PAIN0118-004 06/01/2018

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

	Rates	Fringes
PAINTER		
Brush & Roller.....\$	22.00	12.52
Spray, Sandblast, Power Tools, Waterblast & Steam Cleaning.....\$	23.00	12.52

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PAIN1072-003 12/01/2017

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

Rates Fringes

Painters:

Bridges; Locks; Dams;  
Tension Towers & Energized  
Substations.....\$ 33.33 15.45  
Power Generating Facilities.\$ 30.09 15.45

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PLUM0248-003 06/01/2018

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

Rates Fringes

Plumber and Steamfitter.....\$ 36.00 20.23

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PLUM0392-007 06/01/2018

BRACKEN, CARROLL (Eastern Half), GALLATIN, GRANT, MASON, OWEN & ROBERTSON COUNTIES:

Rates Fringes

Plumbers and Pipefitters.....\$ 32.01 19.67

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\* PLUM0502-003 08/01/2018

BRECKINRIDGE, BULLITT, CARROLL (Western Half), FRANKLIN (Western three-fourths), GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES

Rates Fringes

PLUMBER.....\$ 34.62 20.78

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SUKY2010-160 10/08/2001

Rates Fringes

Truck drivers:

GROUP 1.....\$ 16.57 7.34  
GROUP 2.....\$ 16.68 7.34  
GROUP 3.....\$ 16.86 7.34  
GROUP 4.....\$ 16.96 7.34

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Mobile Batch Truck Tender

GROUP 2 - Greaser; Tire Changer; & Mechanic Tender

GROUP 3 - Single Axle Dump; Flatbed; Semi-trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Distributor; Mixer; & Truck Mechanic

GROUP 4 - Euclid & Other Heavy Earthmoving Equipment &

Lowboy; Articulator Cat; 5-Axle Vehicle; Winch & A-Frame  
when used in transporting materials; Ross Carrier; Forklift  
when used to transport building materials; & Pavement  
Breaker

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WELDERS - Receive rate prescribed for craft performing  
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave  
for Federal Contractors applies to all contracts subject to the  
Davis-Bacon Act for which the contract is awarded (and any  
solicitation was issued) on or after January 1, 2017. If this  
contract is covered by the EO, the contractor must provide  
employees with 1 hour of paid sick leave for every 30 hours  
they work, up to 56 hours of paid sick leave each year.  
Employees must be permitted to use paid sick leave for their  
own illness, injury or other health-related needs, including  
preventive care; to assist a family member (or person who is  
like family to the employee) who is ill, injured, or has other  
health-related needs, including preventive care; or for reasons  
resulting from, or to assist a family member (or person who is  
like family to the employee) who is a victim of, domestic  
violence, sexual assault, or stalking. Additional information  
on contractor requirements and worker protections under the EO  
is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within  
the scope of the classifications listed may be added after  
award only as provided in the labor standards contract clauses  
(29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification  
and wage rates that have been found to be prevailing for the  
cited type(s) of construction in the area covered by the wage  
determination. The classifications are listed in alphabetical  
order of "identifiers" that indicate whether the particular  
rate is a union rate (current union negotiated rate for local),  
a survey rate (weighted average rate) or a union average rate  
(weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed  
in dotted lines beginning with characters other than "SU" or  
"UAVG" denotes that the union classification and rate were  
prevailing for that classification in the survey. Example:  
PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of  
the union which prevailed in the survey for this  
classification, which in this example would be Plumbers. 0198  
indicates the local union number or district council number  
where applicable, i.e., Plumbers Local 0198. The next number,  
005 in the example, is an internal number used in processing

the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION



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

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

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

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

**TO: EMPLOYERS/EMPLOYEES**

**PREVAILING WAGE SCHEDULE:**

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

**OVERTIME:**

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

Director  
Division of Construction Procurement  
Frankfort, Kentucky 40622  
502-564-3500

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION  
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY  
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

<b>GOALS FOR MINORITY PARTICIPATION IN EACH TRADE</b>	<b>GOALS FOR FEMALE PARTICIPATION IN EACH TRADE</b>
9.6%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

**Evelyn Teague, Regional Director  
Office of Federal Contract Compliance Programs  
61 Forsyth Street, SW, Suite 7B75  
Atlanta, Georgia 30303-8609**

4. As used in this Notice, and in the contract resulting from this solicitation, the "**covered area**" is Henry County.

**PART IV**  
**INSURANCE**

## INSURANCE

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

- 1) Commercial General Liability-Occurrence form – not less than \$2,000,000 General aggregate, \$2,000,000 Products & Completed Aggregate, \$1,000,000 Personal & Advertising, \$1,000,000 each occurrence.
- 2) Automobile Liability- \$1,000,000 per accident
- 3) Employers Liability:
  - a) \$100,000 Each Accident Bodily Injury
  - b) \$500,000 Policy limit Bodily Injury by Disease
  - c) \$100,000 Each Employee Bodily Injury by Disease
- 4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
  - a) "policy contains no deductible clauses."
  - b) "policy contains \_\_\_\_\_ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."
- 5) KENTUCKY WORKMEN'S COMPENSATION INSURANCE. The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

**PART V**  
**BID ITEMS**

## PROPOSAL BID ITEMS

181035

Page 1 of 3

Report Date 8/30/18

## Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	3,362.00	TON		\$	
0020	00078		CRUSHED AGGREGATE SIZE NO 2	1,674.00	TON		\$	
0030	00100		ASPHALT SEAL AGGREGATE	352.00	TON		\$	
0040	00103		ASPHALT SEAL COAT	42.00	TON		\$	
0050	00194		LEVELING & WEDGING PG76-22	590.00	TON		\$	
0060	00219		CL4 ASPH BASE 1.00D PG76-22	9,420.00	TON		\$	
0070	00342		CL4 ASPH SURF 0.38A PG76-22	11,199.00	TON		\$	
0080	00356		ASPHALT MATERIAL FOR TACK	79.00	TON		\$	
0090	02677		ASPHALT PAVE MILLING & TEXTURING	19,604.00	TON		\$	
0100	02696		SHOULDER RUMBLE STRIPS	75,373.00	LF		\$	
0110	20071EC		JOINT ADHESIVE	73,171.00	LF		\$	
0120	23071EN		OVERBAND CRACK SEALING	425.00	LB		\$	
0130	24785EC		FIBER REINFORCEMENT FOR HMA	528.00	TON		\$	
0140	24878EC		ASPHALT EMULSION FOR FOG SEAL	14.00	TON		\$	

## Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0150	00071		CRUSHED AGGREGATE SIZE NO 57	109.00	TON		\$	
0160	01005		PERFORATED PIPE EDGE DRAIN-4 IN	13,000.00	LF		\$	
0170	01010		NON-PERFORATED PIPE-4 IN	400.00	LF		\$	
0180	01015		INSPECT & CERTIFY EDGE DRAIN SYSTEM	1.00	LS		\$	
0190	01020		PERF PIPE HEADWALL TY 1-4 IN	8.00	EACH		\$	
0200	01024		PERF PIPE HEADWALL TY 2-4 IN	8.00	EACH		\$	
0210	01028		PERF PIPE HEADWALL TY 3-4 IN	8.00	EACH		\$	
0220	01740		CORED HOLE DRAINAGE BOX CON-4 IN	2.00	EACH		\$	
0230	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	43.00	EACH		\$	
0240	02014		BARRICADE-TYPE III	12.00	EACH		\$	
0250	02091		REMOVE PAVEMENT	867.00	SQYD		\$	
0260	02159		TEMP DITCH	9,063.00	LF		\$	
0270	02160		CLEAN TEMP DITCH	4,532.00	LF		\$	
0280	02200		ROADWAY EXCAVATION	5,022.00	CUYD		\$	
0290	02351		GUARDRAIL-STEEL W BEAM-S FACE	3,950.00	LF		\$	
0300	02360		GUARDRAIL TERMINAL SECTION NO 1	6.00	EACH		\$	
0310	02369		GUARDRAIL END TREATMENT TYPE 2A	1.00	EACH		\$	
0320	02381		REMOVE GUARDRAIL	3,950.00	LF		\$	
0330	02562		TEMPORARY SIGNS	800.00	SQFT		\$	
0340	02575		DITCHING AND SHOULDERING	18,126.00	LF		\$	
0350	02596		FABRIC-GEOTEXTILE TYPE I	1,820.00	SQYD		\$	
0360	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0370	02671		PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH		\$	
0380	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		\$	
0390	02701		TEMP SILT FENCE	9,063.00	LF		\$	
0400	02703		SILT TRAP TYPE A	2.00	EACH		\$	
0410	02704		SILT TRAP TYPE B	2.00	EACH		\$	

## PROPOSAL BID ITEMS

181035

Page 2 of 3

Report Date 8/30/18

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0420	02705		SILT TRAP TYPE C	2.00	EACH		\$	
0430	02706		CLEAN SILT TRAP TYPE A	2.00	EACH		\$	
0440	02707		CLEAN SILT TRAP TYPE B	2.00	EACH		\$	
0450	02708		CLEAN SILT TRAP TYPE C	2.00	EACH		\$	
0460	02726		STAKING	1.00	LS		\$	
0470	02775		ARROW PANEL	2.00	EACH		\$	
0480	02929		CRASH CUSHION TYPE IX	3.00	EACH		\$	
0490	05950		EROSION CONTROL BLANKET	9,680.00	SQYD		\$	
0500	05952		TEMP MULCH	6,453.00	SQYD		\$	
0510	05953		TEMP SEEDING AND PROTECTION	4,840.00	SQYD		\$	
0520	05963		INITIAL FERTILIZER	1.00	TON		\$	
0530	05964		20-10-10 FERTILIZER	.60	TON		\$	
0540	05989		SPECIAL SEEDING CROWN VETCH	1,162.00	SQYD		\$	
0550	05992		AGRICULTURAL LIMESTONE	6.00	TON		\$	
0560	06401		FLEXIBLE DELINEATOR POST-M/W	276.00	EACH		\$	
0570	06404		FLEXIBLE DELINEATOR POST-M/Y	44.00	EACH		\$	
0580	06511		PAVE STRIPING-TEMP PAINT-6 IN	15,000.00	LF		\$	
0590	06546		PAVE STRIPING-THERMO-12 IN W	5,615.00	LF		\$	
0600	06547		PAVE STRIPING-THERMO-12 IN Y	670.00	LF		\$	
0610	08100		CONCRETE-CLASS A	63.00	CUYD		\$	
0620	08150		STEEL REINFORCEMENT	1,883.00	LB		\$	
0630	10020NS		FUEL ADJUSTMENT	33,013.00	DOLL	\$1.00	\$	\$33,013.00
0640	10030NS		ASPHALT ADJUSTMENT	82,919.00	DOLL	\$1.00	\$	\$82,919.00
0650	20411ED		LAW ENFORCEMENT OFFICER	300.00	HOURL		\$	
0660	20758ED		REMOVE AND RESET PERF PIPE HEADWALL	5.00	EACH		\$	
0670	21451ED		FILL AND GRADE MEDIAN	60.00	LF		\$	
0680	23159EN		DURABLE WATERBORNE MARKING-6 IN W	47,521.00	LF		\$	
0690	23160EN		DURABLE WATERBORNE MARKING-6 IN Y	38,458.00	LF		\$	
0700	24489EC		INLAID PAVEMENT MARKER	562.00	EACH		\$	
0710	24781EC		INTELLIGENT COMPACTION FOR ASPHALT	20,586.00	TON		\$	
0720	24891EC		PAVE MOUNT INFRARED TEMP EQUIPMENT	851,558.00	SF		\$	
0730	24986EC		HMA ELECTRONIC DELIVERY MGMT SYSTEM	1.00	L S		\$	

## Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0740	00462		CULVERT PIPE-18 IN	4.00	LF		\$	
0750	00464		CULVERT PIPE-24 IN	4.00	LF		\$	
0760	00468		CULVERT PIPE-36 IN	4.00	LF		\$	
0770	01202		PIPE CULVERT HEADWALL-15 IN	1.00	EACH		\$	
0780	01204		PIPE CULVERT HEADWALL-18 IN	1.00	EACH		\$	
0790	01208		PIPE CULVERT HEADWALL-24 IN	2.00	EACH		\$	
0800	01310		REMOVE PIPE	12.00	LF		\$	
0810	01390		METAL END SECTION TY 3-15 IN	7.00	EACH		\$	
0820	01690		FLUME INLET TYPE 1	1.00	EACH		\$	
0830	02165		REMOVE PAVED DITCH	6,060.00	SQYD		\$	
0840	02484		CHANNEL LINING CLASS III	3,011.00	TON		\$	
0850	02555		CONCRETE-CLASS B	12.00	CUYD		\$	

### PROPOSAL BID ITEMS

181035

Page 3 of 3

Report Date 8/30/18

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0860	02625		REMOVE HEADWALL	3.00	EACH		\$	
0870	22660EN		REPLACE GRATE	181.00	LB		\$	
0880	22883EN		CONCRETE WEDGE CURB	1,016.00	LF		\$	

#### Section: 0004 - SIGNING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0890	06412		STEEL POST MILE MARKERS	1.00	EACH		\$	

#### Section: 0005 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0900	02568		MOBILIZATION	1.00	LS		\$	
0910	02569		DEMOBILIZATION	1.00	LS		\$	