CALL NO. 104

CONTRACT ID. 101028

LAUREL COUNTY

FED/STATE PROJECT NUMBER IM 0752(087)

DESCRIPTION LEXINGTON-KNOXVILLE ROAD (I-75)

WORK TYPE GUARDRAIL

PRIMARY COMPLETION DATE 11/30/2010

LETTING DATE: July 30, 2010

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME July 30, 2010. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

DBE CERTIFICATION REQUIRED - 5%

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

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SCOPE OF WORK

CONTRACT ID - 101028 ADMINISTRATIVE DISTRICT - 11

PROJECT(S) IDENTIFICATION AND DESCRIPTION:

COUNTY - LAUREL PCN - DE06300751028
IM 0752(087)
LEXINGTON-KNOXVILLE ROAD (I-75) INSTALL HTC MEDIAN BARRIER ALONG I-75 IN LAUREL COUNTY .
GUARDRAIL. SYP NO. 08-08501.00.
GEOGRAPHIC COORDINATES LATITUDE 37^05'00" LONGITUDE 84^08'00"

COMPLETION DATE(S):
COMPLETION DATE - November 30, 2010
APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

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

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

The contractor is advised that the Underground Facility Damage Protection Act of 1994, became law January 1, 1995. It is the contractor's responsibility to determine the impact of the act regarding this project, and take all steps necessary to be in compliance with the provision of the act.

07/01/2010

FEDERAL CONTRACT NOTES

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

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

CIVIL RIGHTS ACT OF 1964

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

NOTICE TO ALL BIDDERS

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

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

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

FHWA 1273

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

Contrary to Form FHWA-1273, Section V, paragraph 2.b personal addresses and full social security numbers (SSN) shall not be included on weekly payroll submissions by contractors and subcontractors. Contractors and subcontractors shall include the last four digits of the employee's SSN as an individually identifying number for each employee on the weekly payroll submittal. This in no way changes the requirement that contractors and subcontractors maintain complete SSN and home addresses for employees and provide this information upon request of KYTC, FHWA, and the U.S. Department of Labor.

SECOND TIER SUBCONTRACTS

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

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

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

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

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

DBE GOAL

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

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

OBLIGATION OF CONTRACTORS

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

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

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

CERTIFICATION OF CONTRACT GOAL

Contractors shall include the following certification in bids for projects for which a DBE goal has been established. BIDS SUBMITTED WHICH DO NOT INCLUDE CERTIFICATION OF DBE PARTICIPATION WILL NOT BE READ PUBLICLY. 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 printed bid packet. 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

All bidders are encouraged to submit their General DBE Participation Plan with their bid on the official form. Lowest responsive bidders whose bid packages include DBE Participation Plans may be awarded the contract at the next Awards Committee meeting provided that the DBE goal is met. 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;
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.

The apparent low bidder who does not submit a General DBE Participation Plan with the bid shall submit it within 10 calendar days after receipt of notification that they are the apparent low bidder. The project will not be considered for award prior to submission and approval of the apparent low bidder's DBE Participation Plan.

Detailed DBE Participation Plan forms will be included in the Contractor Package presented to successful bidders following the awarding of the project. The Detailed DBE Participation Plan must be completed and returned to Contract Procurement in accordance with Cabinet policy. A copy of the blank estimate will be included with the Detailed DBE Participation Plan to list sequence items by PCN (Project Control Number).

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 certainly 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 our the DBE contract requirements shall constitute a breach of contract and as such the Cabinet reserves the right to exercise all administrative remedies at its disposal including, but not limited to the following:

- Disallow credit toward the DBE goal;
- Withholding progress payments;

- Withholding payment to the prime in an amount equal to the unmet portion of the contract goal; and/or
- Termination of the contract.

PROMPT PAYMENT

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

CONTRACTOR REPORTING

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

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

The Prime Contractor should supply the payment information at the time the DBE is compensated for their work. Form to use is located at:
http://transportation.ky.gov/construction/forms/DBEcheck.xls

Photocopied payments and completed form to be submitted to:
Office of Civil Rights and Small Business Development
6th 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.

Kentucky Transportation Cabinet
General DBE Participation Plan*

06/13/2005

Letting Date: _____ Contract ID Number _____ Project Number: _____

Designated DBE Goal % _____

Prime Contractor _____ DBE Company Name _____

Address _____

City, State, Zip _____

Federal Tax ID _____

Type of DBE Work: (all applicable)

_____ Supplier _____ Subcontractor _____ Manufacturer _____ Engineering _____ Other _____

Itemized worked to be performed by DBE Company:

Supplier 60% Y/N	Item Number	Description of Participation Item	Unit of Measure	Quantity to be Performed by DBE	DBE Unit Price **	Dollar Amount (based on DBE
					Total other Page	
					Total This DBE	
					Total Bid	
					% Credited toward Goal, this DBE	

**Note: 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

Prime Contractor's Signature: _____ Title: _____ Date: _____

DBE Participant Signature: _____ Title: _____ Date: _____

***This form must be completed for each DBE participant**

KYTC
DBE Payments

updated 2/28/08

Prime Contractor	Cont-ID
DBE Contractor	**CHECK #**
PAYMENT DATE	**Amount of Payment**

Use the section below to show multiple payments using the same check

Cont-ID	Amount	Cont-ID	Amount

Comments:

attach copy of check here

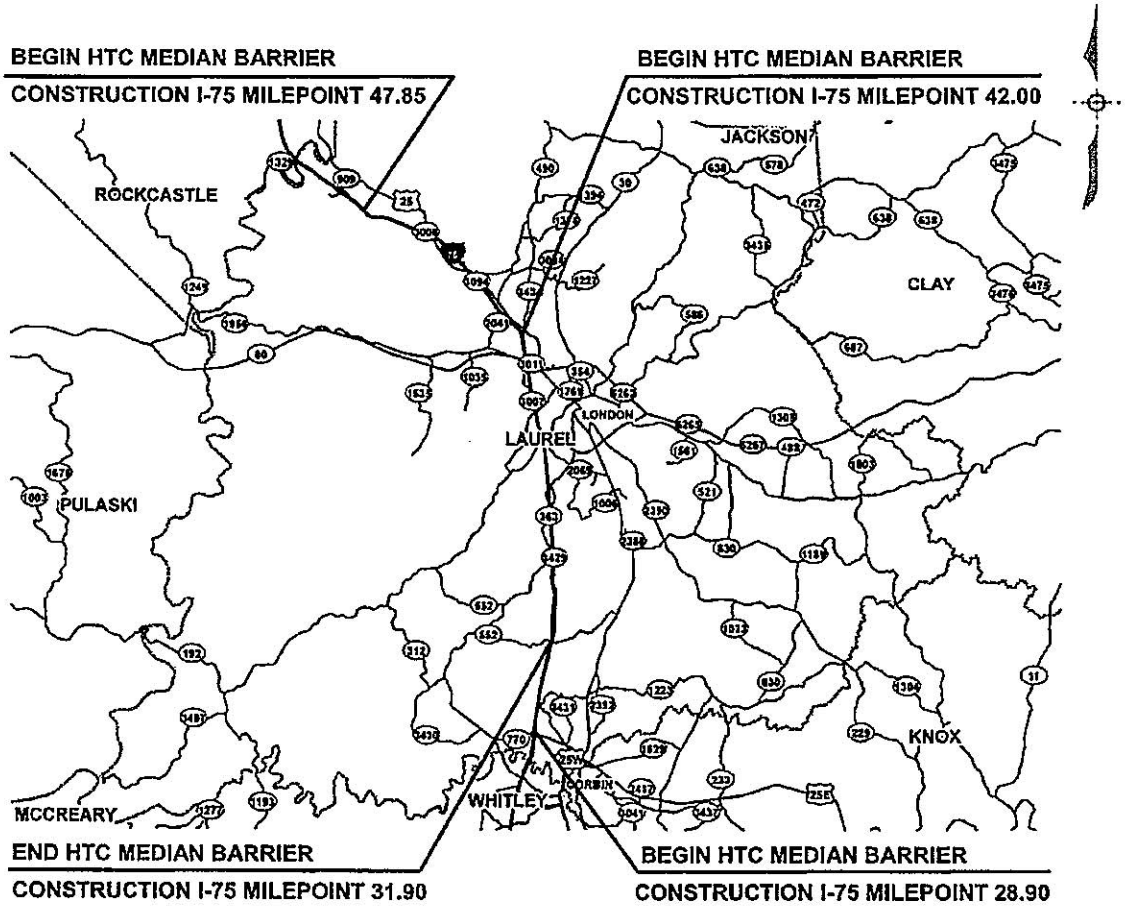
Mail to:
Office of Civil Rights and Small Business Development
200 Mero Street
6th Floor West TCOB
Frankfort, KY 40622

to be Submitted within 7 days of receipt of payment from KYTC

EXPEDITE PROJECT WORK ORDER

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

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



PLAN APPROVED BY:

DATE:_____

FHWA

RECOMMENDED BY:

DATE: 6-18-10

PROJECT MANAGER

PLAN APPROVED BY:

DATE: 6-18-10

STATE HIGHWAY ENGINEER

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7. TRAFFIC CONTROL PLAN
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9. GEOTECHNICAL REPORT SHEETS

PROPOSAL BY	PROPOSED HTC MEDIAN BARRIER	
KENTUCKY TRANSPORTATION CABINET DEPARTMENT OF HIGHWAY	ROUTE: I-75	LAUREL COUNTY
	ITEM NO: 08-8501.00	
	MILEPOINT: 28.9 TO 31.90 MILEPOINT: 42.0 TO 47.85	MILES : 3.0 MILES : 5.85

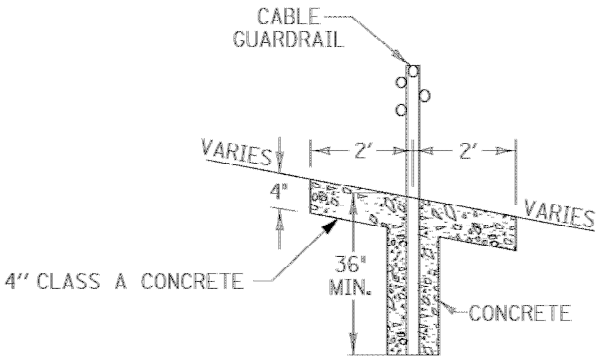
PROJECT DESCRIPTION

Laurel County
HTC Median Barrier on I-75
from I-75 (MP. 47.85) to I-75 (MP. 42.0)
and from I-75 (MP. 31.90) to I-75 (MP. 28.9)
Item No. 08-8501.00

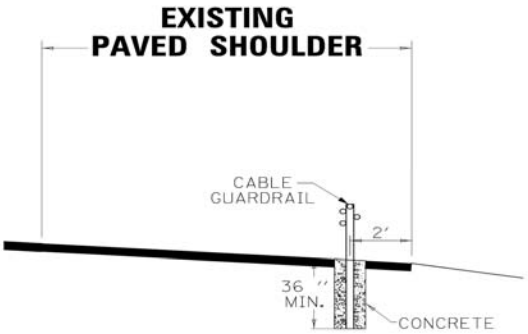
The purpose of this project is to install HTC Median Barrier along I-75 in Laurel County, from South of Rt. 909 overpass (Approx. MP. 47.85) to North of a Concrete Barrier Wall (Approx. MP. 42.0) and North of Rt. 552 overpass (Approx. MP. 31.90) to North of S.R. 25E underpass (Approx. MP. 28.9).

The Manufacturer will assist the Contractor with the layout and location of the HTC Median Barrier installation. The Contractor will create schematic layout sheets for the HTC Median Barrier system and prior to construction, the proposed layout and location of the HTC Median Barrier will be approved by the Department.

If the HTC Median Barrier system is placed on the median slope, install a concrete pad as a mow strip. Cut a 4-foot wide and 4-inch deep trench where the HTC system is to run and place Class A Concrete in the trench **(See Detail A).** If the existing interior shoulder is wide enough, the HTC system may be placed in the existing paved shoulder. **(See Detail B).** When designing the system's anchoring, the Manufacturer should consider whether the depth and/or diameter of the line post foundations may need to be increased when placed in an existing paved shoulder versus a concrete pad mow strip.



Detail A



Detail B

PROPOSED HTC MEDIAN BARRIER		ITEM NO: 08-8501.00
LAUREL COUNTY	ROUTE: I-75	MILEPOINT: 28.9 TO 31.90 MILEPOINT: 42.0 TO 47.85

The Contractor shall place asphalt seal coat from the outer edge of the concrete mow strip up to the existing seal coat, through the length of the project as directed by the Engineer. All work to prep the area for the seal coat shall be incidental to the bid item "00001", DGA BASE.

Geotechnical information has been collected at representative locations along the project corridor. This information may be found in the appendix of this proposal. The Manufacturer is responsible for the design of the line post and terminal foundations and shall use the geotechnical information to develop these project-specific foundation designs. The Contractor shall be responsible for obtaining any additional geotechnical information required by the Manufacturer to complete the design of their system's anchoring.

LAUREL COUNTY I-75
UTILITY LOCATIONS

The Cabinet has traffic count stations located across I-75 in Laurel Co. one is at approximately Mile Point 45.9 (US 25 Overpass). The contractor shall use caution in these areas as not to disturb or damage the count stations in any manner and that includes any and all associated hardware necessary for them to function. If damage should occur to these count stations during the placement of the HTC median cable barrier, the contractor shall be responsible for replacing the damaged count station in full, as directed by the engineer, without compensation from the Cabinet, and within the time frame of the project. An inspection by the Cabinet of these stations will take place at the end of work as assurance that they have not been disturbed.

GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT	PROJECT TOTALS
23147EN	HIGH TENSION CABLE-ROPE (1) (4) (6) (7)	LF	43560
23148EN	END ANCHOR (2) (4) (6) (7)	EACH	12
22415EN	CONCRETE CLASS A FOR PAD (5)	SQ. YD.	19360
06427	TRENCHING (3)	LF	43560
00001	DGA BASE	TONS	1791
00100	ASPHALT SEAL AGGREGATE (9)	TONS	623
00291	EMULSIFIED ASPHALT RS-2 (9)	TONS	75
02569	DEMOBILIZATION	LS	1
02562	SIGNS	SF	500
02650	MAINTAIN & CONTROL TRAFFIC	LS	1
02671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	2
02726	STAKING	LS	1
02775	ARROW PANEL	EACH	2
05950	EROSION CONTROL BLANKET (8)	SQ YD	58080
02705	SILT TRAP TYPE C (8)	EACH	56
02708	CLEAN SILT TRAP TYPE C (8)	EACH	56

NOTES:

(1) The HTC Median Barrier system includes all hardware, post, cables, labor, and incidentals within the End Anchors.

(2) The HTC Median Barrier End Anchors includes all hardware, post, cables, labor, and incidentals.

(3) The bid item “Trenching” is for the trenching and disposal of the material removed for the Concrete Class A Pad under the HTC Median Barrier system. Provided this material meets geotechnical requirements it may be used where median fill is needed. Waste area will be pre-approved by the Engineer.

(4) Excavation for the posts and anchors is incidental to the HTC Median Barrier. This material may also be used where median fill is needed provided that requirements listed in note (3) above are followed.

(5) Construct per the Section 505 of the *Standard Specifications for Road and Bridge Construction* for concrete sidewalks.

(6) The Contractor shall select and install only one manufacturer’s high tension cable barrier system for the entire project. Terminal sections and high tension cable barrier shall be produced by the same manufacturer.

(7) Geotechnical work has been completed for the project. All Geotechnical Information has been included in this proposal so that the manufacturers may design the anchors and the post line footings.

(8) The selected Contractor will be responsible for including additional/enhanced BMPs in areas draining to Wood Creek Lake. The BMP Plan developed by the Contractor shall clearly depict sufficient measures, adequate for protection of the resource and approved by the Engineer.

(9) Two applications each for Asphalt Seal Aggregate (20 lbs/sq yd) and Emulsified Asphalt RS-2 (2.4 lbs/sq yd).

SPECIAL NOTES FOR
HTC MEDIAN BARRIER INSTALLATION AND LAYOUT

PAGE 1 OF 2

The HTC Median Barrier will meet or exceed the specifications documented in the SPECIAL NOTE FOR HIGH TENSION CABLE-ROPE MEDIAN BARRIER. The Contractor may choose any Manufacturer of high tension cable-rope so long as their system meets or exceeds specifications documented in the SPECIAL NOTE FOR HIGH TENSION CABLE-ROPE MEDIAN BARRIER. The Contractor shall select and install only one Manufacturer's high tension cable barrier system for the entire project. Terminal sections and high tension cable barrier shall be produced by the same manufacturer. A listing of high tension cable-rope Manufacturers and their products may be found on the Federal Highway Administration's Safety website for Roadside Hardware Guidance:

(http://safety.fhwa.dot.gov/roadway_dept/road_hardware/index.htm).

The Contractor shall provide the following documentation to the Resident Engineer a minimum of 14 days prior to installation of the system:

a) A copy of the appropriate FHWA Acceptance Letters (from NCHRP Report 350 testing) for the HTC system, including one for TL-4 on 6H:1V slopes, TL-3 on 4H:1V, and TL-3 for the terminals/end anchorages.

b) Two copies of the manufacturer's product brochure, specifications, and installation and maintenance manuals.

c) Certification signed and stamped by a Professional Engineer licensed in the Commonwealth of Kentucky stating that the final design of the system meets the requirements of the contract documents.

d) Five copies of the proposed system layout plans clearly depicting installation details, including existing planimetric features (guardrail, safety terminals, edges of pavement/shoulder, ditch line, structures, etc.) and proposed HTC system features (safety terminals, intermediate line posts, and cable-rope location).

e) One copy of the design drawings and calculations for the safety terminal and intermediate line post foundations for the soil conditions on the project. Design drawings and calculations shall be stamped by a Professional Engineer licensed in the Commonwealth of Kentucky.

Review and acceptance of the proposed design (as shown in the documentation listed above) must occur before the Contractor proceeds with installation. The review will be completed in 14 days.

SPECIAL NOTES FOR
HTC MEDIAN BARRIER INSTALLATION AND LAYOUT
PAGE 2 OF 2

When developing the proposed system layout, the Contractor and Manufacturer will adhere to the following guidance:

a) Maintain a minimum of 8' between the HTC system and the edge of traveled way. Maximize this distance as much as feasible.

b) The HTC system must remain a minimum of 10' up from the median ditch line.

c) Legal median u-turn crossovers should remain open.

d) Where possible, shield anchors behind existing roadside safety hardware (i.e. guardrail end treatments, bridge-ends, etc.)

Contrary to Section 111 of the *Standard Specifications for Road and Bridge Construction* no Value Engineering or proposal to modify the specifications of the high tension cable median barrier will be accepted on this project.

The concrete pad mow strip will be constructed per the Section 505 of the *Standard Specifications for Road and Bridge Construction* for concrete sidewalks.

SPECIAL NOTE FOR INSTALLATION AND MAINTENANCE TRAINING

1. PROVIDE INSTALLATION TRAINING BY THE MANUFACTURER OF THE SYSTEM AT THE BEGINNING OF THIS PROJECT.

   A. DURING THE FIRST TWO DAYS OF THE PROJECT, PROVIDE TWO (2) DAYS OF ONSITE FIELD INSTRUCTION ON THE INSTALLATION OF THE SYSTEM ON ALL ASPECTS OF THE SYSTEM INSTALLATION, INCLUDING GRADING, LINE POST INSTALLATION, WIRE ROPE OR CABLE INSTALLATION AND TENSIONING, AND TERMINAL OR ANCHOR INSTALLATION. THE SCHEDULING AND LOCATION OF THIS TRAINING SHALL BE APPROVED BY THE ENGINEER.

   B. PROVIDE THE TRAINING FOR A MAXIMUM OF 30 PARTICIPANTS, TO INCLUDE THE FOLLOWING AS MAY APPLY:

      * CONTRACTOR (PRIME)
      * INSTALLATION CONTRACTOR (SUB)
      * KYTC PERSONNEL (CONSTRUCTION, MAINTENANCE, TRAFFIC SAFETY AND HIGHWAY DESIGN)
      * FHWA REPRESENTATIVE WHEN SYSTEM INSTALLED ON FEDERAL AID PROJECTS

2. THE INSTALLATION CONTRACTOR MUST HAVE PERSONNEL ON SITE AT ALL TIMES DURING THE INSTALLATION OF THE SYSTEM THAT HAVE BEEN TRAINED BY THE MANUFACTURER.

3. PROVIDE MAINTENANCE TRAINING BY THE MANUFACTURER OF THE SYSTEM PRIOR TO THE CLOSING OUT OF THE PROJECT.

   A. PROVIDE A MINIMUM OF TWO (2) HOURS OF CLASSROOM INSTRUCTION ON THE MAINTENANCE AND REPAIR OF THE SYSTEM. THIS TRAINING SHALL BE PROVIDED IN A LOCATION CENTRAL TO THE PROJECT AND THE LOCAL KYTC DISTRICT OFFICE. THE SCHEDULING AND LOCATION OF THIS TRAINING SHALL BE APPROVED BY THE ENGINEER.

   B. PROVIDE A MINIMUM OF TWO (2) HOURS OF ON SITE FIELD INSTRUCTION ON THE MAINTENANCE AND REPAIR OF THE SYSTEM.

   C. PROVIDE THE TRAINING AS REQUIRED FOR A MAXIMUM OF 30 PARTICIPANTS, TO INCLUDE THE FOLLOWING:

      * KYTC PERSONNEL (CONSTRUCTION, MAINTENANCE, AND TRAFFIC SAFETY AND HIGHWAY DESIGN)

      * FHWA REPRESENTATIVE WHEN SYSTEM INSTALLED ON FEDERAL AID PROJECTS

      * THOSE INVITED BY THE KYTC, WHICH MAY INCLUDE LAW ENFORCEMENT AGENCIES AND EMERGENCY RESPONSE REPRESENTATIVES

4. THE REQUIRED TRAINING WILL BE INCIDENTAL TO THE CONTRACT.

SPECIAL NOTE FOR
HIGH TENSION CABLE-ROPE MEDIAN BARRIER

Sheet 1 of 4

DESCRIPTION. This work shall consist of furnishing and installing a high tension cable-rope HTC median barrier with terminals/end anchorages as recommended by the Manufacturer and as directed by the Engineer. This shall include all necessary excavation, backfill, shoulder build-up, compaction, materials, tools, equipment and labor, and provide a minimum of one (1) manufacturer-supported training session(s). All work shall be in accordance with the requirements of this special note.

GENERAL REQUIREMENTS. The HTC median barrier system shall be a four cable-rope system that meets the National Cooperative Highway Research Program (NCHRP) Report 350, Test Level 4 testing for 6H:1V slopes and be accepted by FHWA as such. HTC installed on front slope grades steeper than 6H:1V but 4H:1V or flatter shall be Test Level 3 tested and accepted as such.

Each of the four cable-ropes shall be independently anchored to a concrete end-anchor. The terminals/end anchorages shall be tested and accepted under NCHRP Report 350 Test Level 3. Geotechnical information of the project area shall be used by the Manufacturer to design the sizes and depths of the anchors and footings.

Intermediate line posts shall be socketed with sleeves set in concrete. The maximum post spacing for the HTC System shall be 10.5 feet, center to center.

MATERIALS. Materials for the HTC System shall be according to the following. Section references are from the *Kentucky Standard Specifications For Road and Bridge Construction*.

Concrete, Class A	Section 601
Steel Reinforcement (Minimum Grade 40 steel)	Section 811
Anchor Bolts and Nuts	Section 813
Galvanizing (Bolts, Nuts & Washers)	AASHTO M 232
Fittings (Steel) Hardware	AASHTO M 30
Reflective Sheeting	Section 830

Cable-rope. The cable-rope shall be a galvanized ¾ inch diameter, 3x7 wire rope construction meeting AASHTO M30 Type I Class A coating, except the breaking strength minimum shall be 39,000 pounds. The wire rope shall be prestretched during manufacturing to exhibit a minimum modulus of elasticity of 11,805,090 pounds/inch^2 after pre-stretching.

SPECIAL NOTE FOR
HIGH TENSION CABLE-ROPE MEDIAN BARRIER

Sheet 2 of 4

Posts. Posts shall be the socketed versions with caps, placed in metal or plastic sleeves installed in a concrete foundation. All posts shall be fabricated from materials meeting ASTM A-36 or greater steel and galvanized after fabrication to A-123. The required welding shall be performed by a certified welder in accordance with AWS D1.1. Posts shall be domestic hot-rolled mild steel, or cold-formed from hot-rolled mild steel. A fitting gasket, profiled to fit tightly around each post, shall be provided to prevent debris from entering the socket.

Fittings. Only swaged fittings shall be provided. Field-installed, galvanized-steel fittings (i.e., turnbuckles and splices) shall be one-inch diameter. Factory applied or stainless steel fittings shall be per the manufacturer's specifications. Fully fitted ropes shall develop a Minimum Breaking Load (MBL) of 36,800 pounds. Threaded terminals shall be right hand or left hand threaded M24 X 3 pitch to ANSI B 1.13M. The body of the threaded terminal shall provide a minimum of 6 inches wire rope engagement depth. Threaded terminals shall be either stainless steel or galvanized, after processing, to ASTM A-153.

Turnbuckles. Turnbuckles (i.e. Rigging Screws) shall be threaded to accept the fitting described above. Turnbuckles may be either the open or closed body type (with two inspection holes to determine threaded rope terminal penetration). The turnbuckles shall allow for a minimum of 6 inches of penetration from each end. Turnbuckles shall develop minimum tensile loads without yielding to 36,800 pounds and shall be galvanized after threading to ASTM A-153 or stainless steel.

Mechanical Anchor Fittings. Fittings shall be provided at the anchor termination of each cable-rope and shall be of the same type as used in the connection to the turnbuckles. The fittings shall develop minimum tensile loads of the entire wire rope of 36,800 pounds without yielding, shall be capable of release and reuse, and shall be galvanized after threading to ASTM A-153.

End Terminals. End Terminals placed within the clear zone, as defined by AASHTO Roadside Design Guide, shall be NCHRP Report 350 compliant, meeting Test Level 3 (TL-3) requirements, and having an FHWA letter of acceptance. Other terminals may be used in locations where impacts are unlikely or if properly shielded by impact attenuator, if approved by the Engineer. Each of the four cable-ropes of the system shall have separate anchors connections to the terminal end section. End anchors shall be fabricated from materials meeting ASTM A-36 and galvanized after fabrication to A-123. All welding shall be performed by a certified welder in accordance with AWS D1.1.

SPECIAL NOTE FOR
HIGH TENSION CABLE-ROPE MEDIAN BARRIER

Sheet 3 of 4

CONSTRUCTION. The Contractor shall install high tension cable-rope barrier system according to the manufacturer's design and recommendation. Prior to construction, the proposed layout and location of the HTC System will be approved by the Department. The posts shall be installed plumb and in accordance with the proposed layout, spacing, and location shown in the HTC System layout plans as approved by the Department.

Turnbuckles shall be included to allow for tensioning of the cable-ropes. For installations greater than 1,000 feet in length, at least one Turnbuckle per 1,000 feet shall be included per strand of cable-rope. For installations less than 1,000 feet in length, one Turnbuckle per strand shall be included near the center of the installation.

At all locations where the cable-rope is connected to a cable-rope socket with a wedge type connection, one wire of the wire rope shall be crimped over the base of the wedge to hold it firmly in place.

Extreme care shall be taken in ensuring proper cable-rope height. The area shall be relatively smooth, without edge drop-offs, holes, other depressions or abrupt slope changes between the edge of the traveled way and the cable-rope barrier system.

The HTC System shall be placed and tensioned immediately after initial installation per the manufacturer's recommendations. Tension shall be rechecked approximately two (2) to three (3) weeks after initial tensioning and adjusted, if necessary. A tension log form shall be completed showing the time, date, location, ambient temperature, and final tension reading, signed by the person performing the tension reading. This log shall be furnished to the Engineer upon completion of work. This form shall also include the manufacturer's recommended tension chart.

Line post shall be socketed with sleeves set in concrete. The minimum diameter for the line post foundations shall be 12 inches. Minimum installation depth for the concrete line posts footings shall be 36-inches for non-rock installation. Greater depths may be required for non-rock installation due to manufacturer's recommendations based on soil information as shown in this proposal. Depths and requirements for installations in rock shall be based on manufacturer's recommendations.

The HTC System shall be delineated with retro-reflective sheeting. The delineation shall be applied to the last five posts at each end of an installation and throughout the remainder of the installation at a maximum spacing of 50 feet. The delineation shall provide a minimum of seven square inches of area when viewed on a line parallel to the roadway centerline. For median installations, the sheeting shall be applied to both sides of the post. The delineation shall be attached near the top of the posts as recommended by the manufacturer. The sheeting shall be yellow or white and shall be the same color as the adjacent edge line.

PROPOSED HTC MEDIAN BARRIER		ITEM NO: 08-8501.00
LAUREL COUNTY	ROUTE: I-75	MILEPOINT: 28.9 TO 31.90 MILEPOINT: 42.0 TO 47.85

SPECIAL NOTE FOR
HIGH TENSION CABLE-ROPE MEDIAN BARRIER

Sheet 4 of 4

Contractor shall not allow traffic to be exposed to trenching and/or excavated post anchor holes for longer than one working shift, as directed by the Engineer.

MEASUREMENT.

High Tension Cable-Rope Barrier. will be measured by the linear foot. Any costs associated with the cable-rope, intermediate line posts, line post foundations, cable-rope tensioning, reflective sheeting, and all necessary incidentals shall be included in the price bid for this item.

End Anchors. will be measured by each unit. The Contractor's proposed layout and location plans will specify the type and number of end terminals required. Any costs associated with the excavation, reinforcing steel, concrete, and other incidentals shall be included in the price bid for this item.

PAYMENT

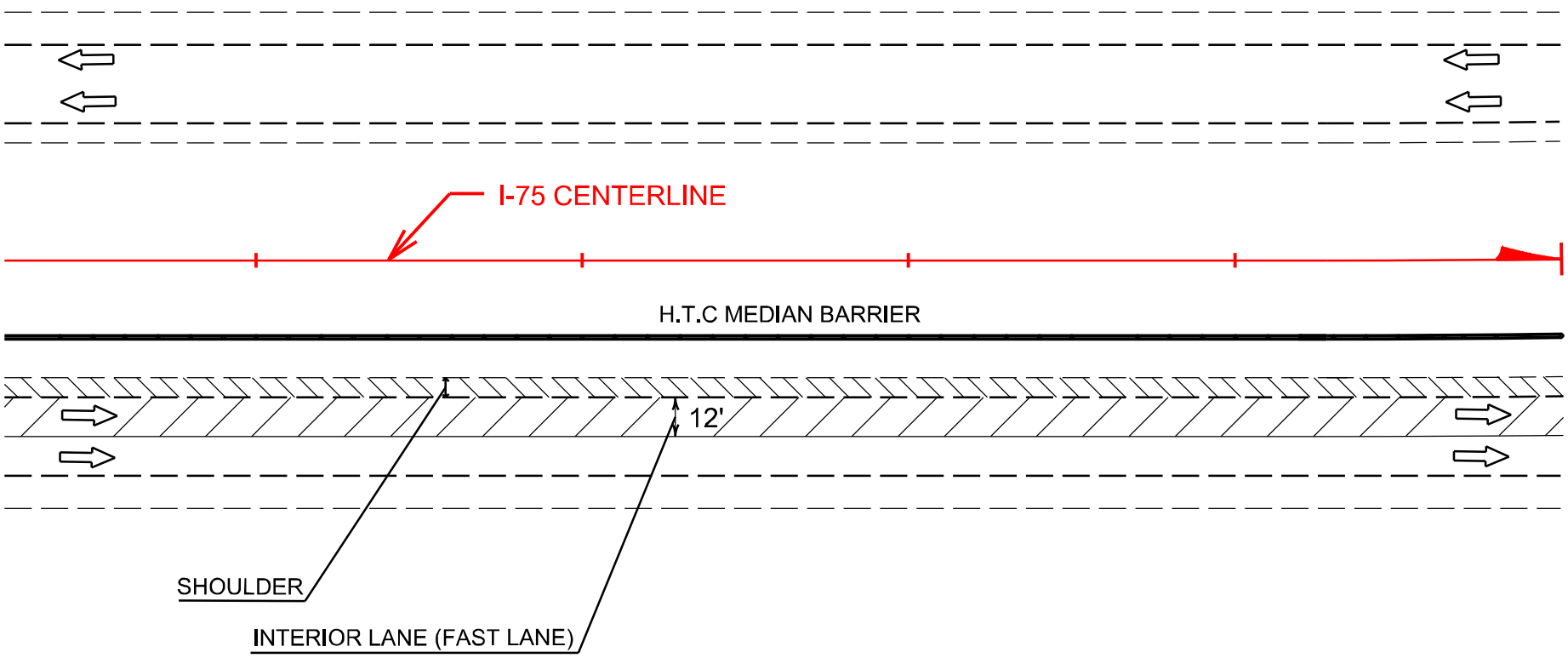
Code	Pay Item	Pay Unit
23147EN	HIGH TENSION CABLE-ROPE BARRIER	LINEAR FOOT
23148EN	END ANCHORS	EACH

Such payment shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

TRAFFIC CONTROL PLAN
(LANE CLOSURE)
PAGE 1 OF 5

1) SHOULDER
THE INTERIOR SHOULDER MAY BE CLOSED AT ANY TIME THROUGHOUT THE PROJECT (EXCEPT ON THE “NO CLOSURE” DATES.)

2) INTERIOR LANE (FAST LANE) AND SHOULDER MAY BE CLOSED THE FOLLOWING TIMES:
8:00 PM - 8:00 AM NIGHTLY, SUNDAY EVENING THROUGH FRIDAY MORNING.



WORKING HOURS
SCHEME

TRAFFIC CONTROL PLAN

THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY

TRAFFIC CONTROL GENERAL

Except as provided herein, maintain and control traffic in accordance with the 2008 Standard Specifications and the Standard Drawings, current editions. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic".

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

The speed limit in work areas will be reduced by 10 M.P.H. from the posted speed and double fines for work zone speeding violations may be established. The extent of these areas within the project limits will be restricted to the proximity of actual work areas as determined by the Engineer. Double fine zones will be in place only when workers are present.

Until the Department makes final written acceptance of the work, the Contractor shall rebuild, repair, and restore any portion of the HTC median barrier system damaged by any cause, including regular traffic impact. The Contractor shall bear the expense of these repairs.

PROJECT PHASING & CONSTRUCTION PROCEDURES

The following closures will be allowed for I-75:

THE INTERIOR SHOULDER MAY BE CLOSED AT ANY TIME THROUGHOUT THE PROJECT (EXCEPT FOR THE DATES AND TIMES LISTED BELOW.) When work is being conducted in the median, the contractor must have an interior shoulder closure at a minimum. Only minor operations which will cause no disruption to traffic flow (e.g. system layout, site preparation, etc.) may be allowed, at the engineer's discretion, during shoulder closures. All other work must be conducted during the closure of the interior lane (fast lane) and shoulder. No equipment or material deliveries will be allowed under the shoulder closure scheme. The Contractor shall close only the interior lane adjacent to the placement of the HTC median barrier.

TRAFFIC CONTROL PLAN

The interior lane (fast lane) and shoulder may be closed the following times:

8:00 PM through 8:00 AM nightly (night work only)
Sunday evening, Monday, Tuesday, Wednesday, Thursday, and Friday morning

No lane or shoulder closure will be allowed from 8:00 AM Friday morning to 8:00 PM Sunday evening.

No lane or shoulder closures will be allowed on the following days:

Bristol Motor Speedway Weekend	August 20 – 23, 2010
Labor Day Weekend	September 3 – 6, 2010
Thanksgiving Day Weekend	November 25 – 28, 2010

During lane closures, the clear lane width shall be 12 feet; however, make provisions for passage of vehicles up to 16 feet in width.

ALL TRAFFIC CONTROL DEVICES MUST BE MOVED FROM THE PAVED SURFACE BY THE TIMES SPECIFIED FOR LANE CLOSURES.

THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN THE MEDIAN AT ALL TIMES ON THE PROJECT.

LANE CLOSURES

Do not leave lane closures in place during prohibited periods. Do not leave lane closures in place during nonworking hours. Leaving lane closures up during these times will cost the contractor $1,000 per lane per hour or fraction of an hour. Multiple lane closures may occur along the length of the project, but should not occur within 3 miles of each other and shall be limited to no more than 2 miles each in length. No long term lane closures will be allowed; therefore, contrary to Section 112, lane closures will not be measured for payment. For information on Lane Closure set up, please refer to Standard Drawing TTC-115 “Lane Closure Multi-Lane Highway Case I”

LIQUIDATED DAMAGES

A $10,000.00 per day penalty will be charged if lane closure days exceed 60. Also, a $10,000.00 per day penalty will be charged starting November 30, 2010 if all work is not complete. Contrary to Section 108.09 of the Standard Specifications, the disincentive fee will be charged during those periods when seasonal limitations of the Contract prohibit the Contractor from working on a controlling item or operation.

TRAFFIC CONTROL PLAN

SIGNS

The Engineer may require additional traffic control signs in addition to normal lane closure signing detailed on the Standard Drawings. Additional signs needed may include, but are not limited to, dual mounted LEFT LANE CLOSED 1 MILE, LEFT LANE CLOSED 2 MILE, LEFT LANE CLOSED 3 MILE, SLOWED/STOPPED TRAFFIC AHEAD, KEEP RIGHT, etc.

Individual signs will be measured only once for payment, under the Bid Item "Signs" regardless of how many times they are set, reset, removed, and relocated during the duration of the project. Replacements for damaged signs directed by the Engineer to be replaced due to poor condition or reflectivity will not be measured for payment.

PORTABLE CHANGEABLE MESSAGE SIGNS

Provide a minimum of two Portable Changeable Message Signs in advance of or on the project at locations designated by the Engineer. The Engineer will designate the messages to be provided. The locations and messages designated may vary as the work progresses. The Portable Changeable Message Signs shall be in operation at all times. In the event of damage or mechanical/electrical failure, immediately repair or replace the Portable Changeable Message Sign. Replacements for damaged Portable Changeable Message Signs directed by the Engineer to be replaced due to poor condition or legibility will not be measured for payment. Refer to, "Special Note For Portable Changeable Message Signs (1I)" paid under Bid Item "02671" Portable Changeable Message Signs.

BARRELS

Barrels are to be used for channelization or delineation and will be incidental to "MAINTAIN AND CONTROL TRAFFIC" according to Section 112.04.0 1. Replacements for damaged barrels directed by the Engineer to be replaced due to poor condition or reflectivity will not be measured for payment. Barrels will be used to delineate the closed/active lane lines and tapers.

TRAFFIC CONTROL PLAN

PROJECT TRAFFIC COORDINATOR

The Contractor shall supply a Project Traffic Coordinator (PTC) to monitor traffic control devices 24 hours a day throughout the duration of the project. The Project Traffic Coordinator must be equipped with a cellular phone and have the authority to immediately maintain and make changes in the traffic control as traffic conditions merit. The Contractor will be penalized one thousand dollars ($1000) liquidated damages per day for any incidence that the Project Traffic Coordinator is not on the project. This project shall be classified as "significant", and thus will require the PTC to also be qualified as a W**ork Zone Traffic Control Supervisor**.

The Contractor shall have on call a 24-hour wrecker service that the Contractor shall promptly contact to remove any disabled vehicle within the project limits. The wrecker service should have, but not be limited to, the following items/capabilities: cell phone, gasoline, jumper cables, vehicle pushing, and tire changing. The Contractor will be charged one thousand dollars ($1000) liquidated damages for any incidence when the wrecker service fails to respond to the project within 25 minutes. Payment for all items contained in this note will be considered incidental to the bid item "MAINTAIN AND CONTROL TRAFFIC."

HTC END LOCATIONS	
MILEPOINTS	**LENGTH**
47.85	20328.0’
44.00	
43.95	7392.0’
42.55	
42.40	2112.0’
42.00	
31.90	5808.0’
30.80	
30.50	3432.0’
29.85	
29.75	4488.0’
28.90	
TOTAL:	43560’

NOTE:
These locations have been assumed for the purpose of quantifying the project. Exact locations are to be determined by the Vendor and the Contractor and are to be documented in the HTC Median Barrier System Layout Plans.

APPENDIX
GEOTECHNICAL REPORT SHEETS

PROPOSED HTC MEDIAN BARRIER		ITEM NO: 08-8501.00
LAUREL COUNTY	ROUTE: I-75	MILEPOINT: 28.9 TO 31.90 MILEPOINT: 42.0 TO 47.85

(R-009-2010)

M E M O R A N D U M

TO: **Kevin Martin, PE**
Office of Project Development
Division of Highway Design

FROM: **Bart Asher, PE**
Geotechnical Branch Manager
Division of Structural Design

BY: **Jason Wright**
Geotechnical Branch

DATE: **June 22, 2010**

SUBJECT: **Laurel County**
I-75 Median-Cable Guardrail
Mile Post 28.4 to 48.0
Item # 8-8501.00
Mars # 8367901D
Cable Barrier Anchor Testing

Drilling activities were completed in May 2010. The summary of soil conditions represents soils within the stated project limits. Boring locations were located at provided anchor points and intervals approximately 0.5 to 1 mile between anchor points. At each hole a SPT sample was driven after the first two feet and every five feet thereafter, to a depth no greater than fifteen feet and the associated blow counts were recorded. Also, a bag sample was obtained. The Driller's Subsurface Logs contain the depth of the hole, SPT values, soil description, depth to refusal (if encountered) and if the hole was in a cut or fill. Refusal was encountered due to limestone and/or shale at the accompanying depths.

Holes labeled with an "A" are the SPT's. A boring plan is attached so hole numbers can be referenced to the mile point where the boring was taken. All testing is attached.

The average Frost Depth for Kentucky is 2.0 feet.

If there are any questions, please contact the Geotechnical Branch at (502) 564-2374.

Attachments:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: *R-009-2010* Item Number:	*Laurel - I-75 MP 28.4-48.0*	Project Type: *Roadway* Project Manager: *Jason Wright*

Hole Number *1*	Immediate Water Depth *NA*	Start Date *05/20/2010*	Hole Type *fill profile*
Surface Elevation *'*	Static Water Depth *NA*	End Date *05/20/2010*	Rig_Number *0095-320*
Total Depth *15.0'*	Driller *Chris Hodge*	Latitude(83)	
Location *0+28.90 CL*	Geologist	Longitude(83)	

Elevation	Depth	Description	Jar #	NMC (%)
5		Gray clay and small boulders Bag #1	NMC #1A @ 4'	12.1
	9.0		NMC #2A @ 8'	10.3
10		Gray clay and small boulders Bag #2	NMC #3A @ 12'	24.3
15	15.0	(No Refusal)		
20				
25				
30				
35				
40				
45				
50				

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+28.9 CL	Hole #:	1
Lab ID#:	1	Depth (ft):	0-9

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	90.6	No. 4	82.7
No. 10	73.1	No. 40	60.1	No. 200	49.1
0.002 mm	18.1				

Gravel (-3" + No. 10)	26.9	Coarse Sand (-No. 10 + No. 40)	13.0
Fine Sand (-No. 40 +No. 200)	11.0	Silts (-No. 200 + 0.002mm)	31.0
Clay (-0.002mm)	18.1	Colloids (-0.001mm)	14.5

Liquid Limit:	29	Plastic Limit:	19	Plasticity Index:	10
		Activity:	0.55	Spec. Gravity:	2.677

AASHTO Classification:	A-4 (2)
Unified Classification:	SC

D 10 (mm):	0.000	NAT MT =	11.18
D 30 (mm):	0.008	LIQ =	-0.78197
D 50 (mm):	0.087		
D 60 (mm):	0.420		
D 90 (mm):	9.029		
D 95 (mm):	13.153		

		Cu =	
Sieve Type:	With Gravel		
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+28.9 CL	Hole #:	1
Lab ID#:	2	Depth (ft):	9-15

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	97.1	No. 4	93.5
No. 10	89.0	No. 40	79.1	No. 200	66.0
0.002 mm	24.8				

Gravel (-3" + No. 10)	11.0	Coarse Sand (-No. 10 + No. 40)	9.9
Fine Sand (-No. 40 +No. 200)	13.2	Silts (-No. 200 + 0.002mm)	41.2
Clay (-0.002mm)	24.8	Colloids (-0.001mm)	18.8

Liquid Limit:	30	Plastic Limit:	20	Plasticity Index:	10
		Activity:	0.40	Spec. Gravity:	2.694

AASHTO Classification:	A-4 (5)
Unified Classification:	CL

D 10 (mm):	0.000	NAT MT =	24.28
D 30 (mm):	0.003	LIQ =	0.42845
D 50 (mm):	0.018		
D 60 (mm):	0.044		
D 90 (mm):	2.427		
D 95 (mm):	6.359		

Sieve Type:	With Gravel	Cu =	
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: *R-009-2010* Item Number:	*Laurel - I-75 MP 28.4-48.0*	Project Type: *Roadway* Project Manager: *Jason Wright*

Hole Number *1A*	Immediate Water Depth *9.0 (05/20/10)*	Start Date *05/20/2010*	Hole Type *sample*
Surface Elevation *'*	Static Water Depth *NA*	End Date *05/20/2010*	Rig_Number *0095-320*
Total Depth *15.0'*	Driller *Chris Hodge*	Latitude(83) __	
Location *0+28.90 1.0' Rt.*	Geologist __	Longitude(83) __	

Lithology Elevation	Lithology Depth	Description (Overburden / Rock Core)	Sample No. / Std/Ky RQD	Depth (ft) / Run (ft)	Rec. (ft) / Rec (ft)	SPT Blows / Rec (%)	Sample Type / SDI (JS)	Remarks
			1A	2.0-3.5		3-4-4	SPT	
5			2A	5.0-6.5		3-5-5	SPT	5
10			3A	10.0-11.5		4-6-6	SPT	10
15								15
20		(Bottom of Hole 15.0') (No Refusal) NB						20
25								25
30								30
35								35
40								40
45								45
50								50

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+28.9 1.0' Rt.	Hole #:	1A
Lab ID#:	1A	Depth (ft):	2-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	97.9	3/8"	88.4	No. 4	79.4
No. 10	69.9	No. 40	58.4	No. 200	44.9
0.002 mm	15.0				

Gravel (-3" + No. 10)	30.1	Coarse Sand (-No. 10 + No. 40)	11.5
Fine Sand (-No. 40 +No. 200)	13.5	Silts (-No. 200 + 0.002mm)	29.9
Clay (-0.002mm)	15.0	Colloids (-0.001mm)	10.8

Liquid Limit:	29	Plastic Limit:	20	Plasticity Index:	9
		Activity:	0.60	Spec. Gravity:	2.581

AASHTO Classification:	A-4 (1)
Unified Classification:	SC

D 10 (mm):	0.000	NAT MT =	9.45
D 30 (mm):	0.012	LIQ =	-1.17192
D 50 (mm):	0.144		
D 60 (mm):	0.524		
D 90 (mm):	10.670		
D 95 (mm):	15.395		

		Cu =	
Sieve Type:	With Gravel		
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+28.9 1.0' Rt.	Hole #:	1A
Lab ID#:	2A	Depth (ft):	5-6.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	97.9	3/8"	88.4	No. 4	79.4
No. 10	69.9	No. 40	58.4	No. 200	44.9
0.002 mm	15.0				

Gravel (-3" + No. 10)	30.1	Coarse Sand (-No. 10 + No. 40)	11.5
Fine Sand (-No. 40 +No. 200)	13.5	Silts (-No. 200 + 0.002mm)	29.9
Clay (-0.002mm)	15.0	Colloids (-0.001mm)	10.8

Liquid Limit:	29	Plastic Limit:	20	Plasticity Index:	9
		Activity:	0.60	Spec. Gravity:	2.581

AASHTO Classification:	A-4 (1)
Unified Classification:	SC

D 10 (mm):	0.000	NAT MT =	9.45
D 30 (mm):	0.012	LIQ =	-1.17192
D 50 (mm):	0.144		
D 60 (mm):	0.524		
D 90 (mm):	10.670		
D 95 (mm):	15.395		

		Cu =	
Sieve Type:	With Gravel		
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+28.9 1.0' Rt.	Hole #:	1A
Lab ID#:	3A	Depth (ft):	10-11.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	89.3	3/8"	78.2	No. 4	68.5
No. 10	59.8	No. 40	45.6	No. 200	37.0
0.002 mm	10.7				

Gravel (-3" + No. 10)	40.2	Coarse Sand (-No. 10 + No. 40)	14.2
Fine Sand (-No. 40 +No. 200)	8.5	Silts (-No. 200 + 0.002mm)	26.3
Clay (-0.002mm)	10.7	Colloids (-0.001mm)	6.9

Liquid Limit:	29	Plastic Limit:	21	Plasticity Index:	8
		Activity:	0.75	Spec. Gravity:	2.688

AASHTO Classification:	A-4 (0)
Unified Classification:	GC

D 10 (mm):	0.002	NAT MT =	13.89
D 30 (mm):	0.029	LIQ =	-0.88889
D 50 (mm):	0.689		
D 60 (mm):	2.042		
D 90 (mm):	19.327		
D 95 (mm):	21.981		

		Cu =	1162.66874
Sieve Type:	With Gravel		
Notes:		Cc =	0.22688
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***2***	Immediate Water Depth ***NA***	Start Date ***05/20/2010***	Hole Type ***fill profile***
Surface Elevation ___	Static Water Depth ***NA***	End Date ***05/20/2010***	Rig_Number ***0095-320***
Total Depth ***15.0'***	Driller ***Chris Hodge***	Latitude(83) ___	
Location ***0+29.75 CL***	Geologist ___	Longitude(83) ___	

Elevation	Depth	Description	Jar #	NMC (%)
5		Brown and gray clay with small boulders Bag #3	NMC #4A @ 4'	16.5
10			NMC #5A @ 8'	10.6
			NMC #6A @ 12'	18.6
15	15.0	(No Refusal)		
20				
25				
30				
35				
40				
45				
50				

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+29.75 CL	Hole #:	2
Lab ID#:	3	Depth (ft):	0-15

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	96.5	No. 4	94.3
No. 10	91.0	No. 40	82.2	No. 200	65.7
0.002 mm	25.5				

Gravel (-3" + No. 10)	9.0	Coarse Sand (-No. 10 + No. 40)	8.7
Fine Sand (-No. 40 +No. 200)	16.5	Silts (-No. 200 + 0.002mm)	40.2
Clay (-0.002mm)	25.5	Colloids (-0.001mm)	16.3

Liquid Limit:	32	Plastic Limit:	20	Plasticity Index:	12
		Activity:	0.47	Spec. Gravity:	2.666

AASHTO Classification:	A-6 (6)
Unified Classification:	CL

D 10 (mm):	0.000	NAT MT =	15.22
D 30 (mm):	0.003	LIQ =	-0.39821
D 50 (mm):	0.018		
D 60 (mm):	0.045		
D 90 (mm):	1.686		
D 95 (mm):	5.976		

Sieve Type:	With Gravel	Cu =	
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***2A***	Immediate Water Depth ***NA***	Start Date ***05/20/1975***	Hole Type ***sample***
Surface Elevation ***'***	Static Water Depth ***NA***	End Date ***05/20/1975***	Rig_Number ***0095-320***
Total Depth ***15.0'***	Driller ***Chris Hodge***	Latitude(83) __	
Location ***0+29.75 1.0' Rt.***	Geologist __	Longitude(83) __	

Lithology Elevation	Lithology Depth	Description (Overburden / Rock Core)	Sample No. / Std/Ky RQD	Depth (ft) / Run (ft)	Rec. (ft) / Rec (ft)	SPT Blows / Rec (%)	Sample Type / SDI (JS)	Remarks
			1A	2.0-3.5		4-5-6	SPT	
5			2A	5.0-6.5		6-8-9	SPT	5
10			3A	10.0-11.5		7-7-8	SPT	10
15								15
20		(Bottom of Hole 15.0') (No Refusal) NB						20
25								25
30								30
35								35
40								40
45								45
50								50

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+29.75 1.0' Rt.	Hole #:	2A
Lab ID#:	1A	Depth (ft):	2-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	88.6	No. 4	82.2
No. 10	76.1	No. 40	67.3	No. 200	58.0
0.002 mm	15.9				

Gravel (-3" + No. 10)	23.9	Coarse Sand (-No. 10 + No. 40)	8.8
Fine Sand (-No. 40 +No. 200)	9.3	Silts (-No. 200 + 0.002mm)	42.1
Clay (-0.002mm)	15.9	Colloids (-0.001mm)	9.3

Liquid Limit:	34	Plastic Limit:	24	Plasticity Index:	10
		Activity:	0.63	Spec. Gravity:	2.571

AASHTO Classification:	A-4 (4)
Unified Classification:	ML

D 10 (mm):	0.001	NAT MT =	12.58
D 30 (mm):	0.007	LIQ =	-1.14193
D 50 (mm):	0.038		
D 60 (mm):	0.109		
D 90 (mm):	10.340		
D 95 (mm):	14.016		

		Cu =	100.61366
Sieve Type:	With Gravel		
Notes:		Cc =	0.38749
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+29.75 1.0' Rt.	Hole #:	2A
Lab ID#:	2A	Depth (ft):	5-6.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	97.6	No. 4	94.6
No. 10	90.1	No. 40	84.8	No. 200	62.8
0.002 mm	22.8				

Gravel (-3" + No. 10)	9.9	Coarse Sand (-No. 10 + No. 40)	5.3
Fine Sand (-No. 40 +No. 200)	22.0	Silts (-No. 200 + 0.002mm)	40.1
Clay (-0.002mm)	22.8	Colloids (-0.001mm)	14.9

Liquid Limit:	34	Plastic Limit:	23	Plasticity Index:	11
		Activity:	0.48	Spec. Gravity:	2.546

AASHTO Classification:	A-6 (5)
Unified Classification:	CL

D 10 (mm):	0.000	NAT MT =	13.92
D 30 (mm):	0.004	LIQ =	-0.82509
D 50 (mm):	0.023		
D 60 (mm):	0.058		
D 90 (mm):	1.938		
D 95 (mm):	5.167		

		Cu =	
Sieve Type:	With Gravel		
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+29.75 1.0' Rt.	Hole #:	2A
Lab ID#:	3A	Depth (ft):	10-11.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	97.6	No. 4	94.6
No. 10	90.1	No. 40	84.8	No. 200	62.8
0.002 mm	22.8				

Gravel (-3" + No. 10)	9.9	Coarse Sand (-No. 10 + No. 40)	5.3
Fine Sand (-No. 40 +No. 200)	22.0	Silts (-No. 200 + 0.002mm)	40.1
Clay (-0.002mm)	22.8	Colloids (-0.001mm)	14.9

Liquid Limit:	34	Plastic Limit:	23	Plasticity Index:	11
		Activity:	0.48	Spec. Gravity:	2.546

AASHTO Classification:	A-6 (5)
Unified Classification:	CL

D 10 (mm):	0.000	NAT MT =	13.92
D 30 (mm):	0.004	LIQ =	-0.82509
D 50 (mm):	0.023		
D 60 (mm):	0.058		
D 90 (mm):	1.938		
D 95 (mm):	5.167		

		Cu =	
Sieve Type:	With Gravel		
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: *R-009-2010* Item Number:	*Laurel - I-75 MP 28.4-48.0*	Project Type: *Roadway* Project Manager: *Jason Wright*

Hole Number *3*	Immediate Water Depth *NA*	Start Date *05/20/2010*	Hole Type *fill profile*
Surface Elevation *'*	Static Water Depth *NA*	End Date *05/20/2010*	Rig_Number *0095-320*
Total Depth *3.5'*	Driller *Chris Hodge*	Latitude(83) __	
Location *0+29.85 CL*	Geologist __	Longitude(83) __	

Elevation	Depth	Description				Jar #	NMC (%)	
	3.5	Brown clay and small boulders Bag #4				NMC #7A @ 3'	12.9	
5		(Refusal @ 3.5)						5
10								10
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+29.85 CL	Hole #:	3
Lab ID#:	4	Depth (ft):	0-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	96.2	3/8"	87.1	No. 4	80.1
No. 10	72.1	No. 40	64.7	No. 200	49.6
0.002 mm	17.6				

Gravel (-3" + No. 10)	27.9	Coarse Sand (-No. 10 + No. 40)	7.4
Fine Sand (-No. 40 +No. 200)	15.1	Silts (-No. 200 + 0.002mm)	32.0
Clay (-0.002mm)	17.6	Colloids (-0.001mm)	13.2

Liquid Limit:	32	Plastic Limit:	21	Plasticity Index:	11
		Activity:	0.62	Spec. Gravity:	2.567

AASHTO Classification:	A-6 (3)
Unified Classification:	SC

D 10 (mm):	0.000	NAT MT =	12.95
D 30 (mm):	0.008	LIQ =	-0.73199
D 50 (mm):	0.078		
D 60 (mm):	0.247		
D 90 (mm):	11.860		
D 95 (mm):	17.396		

Sieve Type:	With Gravel	Cu =	
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: R-009-2010 Item Number:	Laurel - I-75 MP 28.4-48.0	Project Type: Roadway Project Manager: Jason Wright

Hole Number 3A	Immediate Water Depth NA	Start Date 05/20/2010	Hole Type sample
Surface Elevation '	Static Water Depth NA	End Date 05/20/2010	Rig_Number 0095-320
Total Depth 3.5'	Driller Chris Hodge	Latitude(83)	
Location 0+29.85 1.0' Rt.	Geologist	Longitude(83)	

Lithology Elevation	Lithology Depth	Description (Overburden / Rock Core)	Sample No. / Std/Ky RQD	Depth (ft) / Run (ft)	Rec. (ft) / Rec (ft)	SPT Blows / Rec (%)	Sample Type / SDI (JS)	Remarks
			1A	2.0-3.5		9-12-18	SPT	
5		(Bottom of Hole 3.5') (Refusal @ 3.5) NB						5
10								10
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+29.85 1.0' Rt.	Hole #:	3A
Lab ID#:	1A	Depth (ft):	2-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	100.0	No. 4	93.2
No. 10	88.5	No. 40	72.3	No. 200	52.4
0.002 mm	9.2				

Gravel (-3" + No. 10)	11.5	Coarse Sand (-No. 10 + No. 40)	16.2
Fine Sand (-No. 40 +No. 200)	19.9	Silts (-No. 200 + 0.002mm)	43.3
Clay (-0.002mm)	9.2	Colloids (-0.001mm)	6.9

Liquid Limit:	27	Plastic Limit:	20	Plasticity Index:	7
		Activity:	0.76	Spec. Gravity:	2.669

AASHTO Classification:	A-4 (1)
Unified Classification:	CL-ML

D 10 (mm):	0.002	NAT MT =	6.40
D 30 (mm):	0.011	LIQ =	-1.94229
D 50 (mm):	0.061		
D 60 (mm):	0.145		
D 90 (mm):	2.642		
D 95 (mm):	5.686		

		Cu =	67.62817
Sieve Type:	With Gravel		
Notes:		Cc =	0.42119
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***4***	Immediate Water Depth ***NA***	Start Date ***05/20/2010***	Hole Type ***fill profile***
Surface Elevation ***'***	Static Water Depth ***NA***	End Date ***05/20/2010***	Rig_Number ***0095-320***
Total Depth ***3.5'***	Driller ***Chris Hodge***	Latitude(83) ___	
Location ***0+30.80 CL***	Geologist ___	Longitude(83) ___	

Elevation	Depth	Description				Jar #	NMC (%)	
	3.5	Gray clay and small boulders Bag #5				NMC #8A @ 3'	17.9	
5		(Refusal @ 3.5)						5
10								10
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Testing Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+30.8 CL	Hole #:	4
Lab ID#:	5	Depth (ft):	0-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	100.0	No. 4	95.4
No. 10	92.2	No. 40	89.5	No. 200	70.1
0.002 mm	21.0				

Gravel (-3" + No. 10)	7.8	Coarse Sand (-No. 10 + No. 40)	2.8
Fine Sand (-No. 40 +No. 200)	19.4	Silts (-No. 200 + 0.002mm)	49.0
Clay (-0.002mm)	21.0	Colloids (-0.001mm)	14.4

Liquid Limit:	26	Plastic Limit:	19	Plasticity Index:	7
		Activity:	0.33	Spec. Gravity:	2.709

AASHTO Classification:	A-4 (3)
Unified Classification:	CL-ML

D 10 (mm):	0.000	NAT MT =	17.94
D 30 (mm):	0.004	LIQ =	-0.15137
D 50 (mm):	0.017		
D 60 (mm):	0.036		
D 90 (mm):	0.574		
D 95 (mm):	4.235		

Sieve Type:	With Gravel	Cu =	
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: *R-009-2010* Item Number:	*Laurel - I-75 MP 28.4-48.0*	Project Type: *Roadway* Project Manager: *Jason Wright*

Hole Number *4A*	Immediate Water Depth *NA*	Start Date *05/20/2010*	Hole Type *sample*
Surface Elevation *'*	Static Water Depth *NA*	End Date *05/20/2010*	Rig_Number *0095-320*
Total Depth *3.5'*	Driller *Chris Hodge*	Latitude(83) __	
Location *0+30.80 1.0' Rt.*	Geologist __	Longitude(83) __	

Lithology Elevation	Lithology Depth	Description (Overburden / Rock Core)	Sample No. / Std/Ky RQD	Depth (ft) / Run (ft)	Rec. (ft) / Rec (ft)	SPT Blows / Rec (%)	Sample Type / SDI (JS)	Remarks
			1A	2.0-3.5		6-9-13	SPT	
5		(Bottom of Hole 3.5') (Refusal @ 3.5) NB						5
10								10
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+30.8 1.0' Rt.	Hole #:	4A
Lab ID#:	1A	Depth (ft):	2-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	100.0	No. 4	100.0
No. 10	100.0	No. 40	97.4	No. 200	82.1
0.002 mm	14.9				

Gravel (-3" + No. 10)	0.0	Coarse Sand (-No. 10 + No. 40)	2.6
Fine Sand (-No. 40 +No. 200)	15.3	Silts (-No. 200 + 0.002mm)	67.2
Clay (-0.002mm)	14.9	Colloids (-0.001mm)	7.3

Liquid Limit:	28	Plastic Limit:	23	Plasticity Index:	5
		Activity:	0.34	Spec. Gravity:	2.654

AASHTO Classification:	A-4 (3)
Unified Classification:	ML

D 10 (mm):	0.001	NAT MT =	18.99
D 30 (mm):	0.005	LIQ =	-0.80253
D 50 (mm):	0.013		
D 60 (mm):	0.023		
D 90 (mm):	0.183		
D 95 (mm):	0.323		

		Cu =	17.74612
Sieve Type:	No Gravel		
Notes:		Cc =	0.69888
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***5***	Immediate Water Depth ***NA***	Start Date ***05/24/2010***	Hole Type ***fill profile***
Surface Elevation ***'***	Static Water Depth ***NA***	End Date ***05/24/2010***	Rig_Number ***0095-320***
Total Depth ***10.0'***	Driller ***Chris Hodge***	Latitude(83)	
Location ***0+31.90 CL***	Geologist	Longitude(83)	

Elevation	Depth	Description	Jar #	NMC (%)
5		fill material - brown and gray clay with small boulders and sand deposits Bag #6	NMC #9A @ 4'	7.4
			NMC #10A @ 8'	12.1
10	10.0	(Refusal @ 10)		
15				
20				
25				
30				
35				
40				
45				
50				

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+31.9 CL	Hole #:	5
Lab ID#:	6	Depth (ft):	0-10

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	92.7	No. 4	88.5
No. 10	85.3	No. 40	80.6	No. 200	38.8
0.002 mm	11.2				

Gravel (-3" + No. 10)	14.7	Coarse Sand (-No. 10 + No. 40)	4.8
Fine Sand (-No. 40 +No. 200)	41.7	Silts (-No. 200 + 0.002mm)	27.6
Clay (-0.002mm)	11.2	Colloids (-0.001mm)	8.6

Liquid Limit:		Plastic Limit:		Plasticity Index:	
		Activity:	0.00	Spec. Gravity:	2.726

AASHTO Classification:	
Unified Classification:	

D 10 (mm):		NAT MT =	9.76
D 30 (mm):		LIQ =	
D 50 (mm):			
D 60 (mm):			
D 90 (mm):			
D 95 (mm):			

		Cu =	ND
Sieve Type:	With Gravel		
Notes:		Cc =	ND
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***5A***	Immediate Water Depth ***NA***	Start Date ***05/24/2010***	Hole Type ***sample***
Surface Elevation ***'***	Static Water Depth ***NA***	End Date ***05/24/2010***	Rig_Number ***0095-320***
Total Depth ***11.5'***	Driller ***Chris Hodge***	Latitude(83) __	
Location ***0+31.90 1.0' Rt.***	Geologist __	Longitude(83) __	

Lithology Elevation	Lithology Depth	Description (Overburden / Rock Core)	Sample No. / Std/Ky RQD	Depth (ft) / Run (ft)	Rec. (ft) / Rec (ft)	SPT Blows / Rec (%)	Sample Type / SDI (JS)	Remarks
			1A	2.0-3.5		16-18-10	SPT	
5								5
			2A	5.0-6.5		4-4-5	SPT	
10								10
			3A	10.0-11.5		10-15-18	SPT	
15		(Bottom of Hole 11.5') (Refusal @ 10)						15
20		NB						20
25								25
30								30
35								35
40								40
45								45
50								50

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+31.9 1.0' Rt.	Hole #:	5A
Lab ID#:	1A	Depth (ft):	2-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	91.3	3/8"	71.3	No. 4	67.8
No. 10	65.3	No. 40	62.3	No. 200	20.2
0.002 mm	5.6				

Gravel (-3" + No. 10)	34.7	Coarse Sand (-No. 10 + No. 40)	3.1
Fine Sand (-No. 40 +No. 200)	42.1	Silts (-No. 200 + 0.002mm)	14.5
Clay (-0.002mm)	5.6	Colloids (-0.001mm)	3.4

Liquid Limit:		Plastic Limit:		Plasticity Index:	
		Activity:	0.00	Spec. Gravity:	2.591

AASHTO Classification:	
Unified Classification:	

D 10 (mm):		NAT MT =	6.12
D 30 (mm):		LIQ =	
D 50 (mm):			
D 60 (mm):			
D 90 (mm):			
D 95 (mm):			

		Cu =	ND
Sieve Type:	With Gravel		
Notes:		Cc =	ND
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+31.9 1.0' Rt.	Hole #:	5A
Lab ID#:	2A	Depth (ft):	5-6.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	100.0	No. 4	100.0
No. 10	100.0	No. 40	97.5	No. 200	69.9
0.002 mm	16.3				

Gravel (-3" + No. 10)	0.0	Coarse Sand (-No. 10 + No. 40)	2.5
Fine Sand (-No. 40 +No. 200)	27.6	Silts (-No. 200 + 0.002mm)	53.6
Clay (-0.002mm)	16.3	Colloids (-0.001mm)	6.1

Liquid Limit:	29	Plastic Limit:	22	Plasticity Index:	7
		Activity:	0.43	Spec. Gravity:	2.632

AASHTO Classification:	A-4 (3)
Unified Classification:	CL-ML

D 10 (mm):	0.001	NAT MT =	9.39
D 30 (mm):	0.005	LIQ =	-1.80148
D 50 (mm):	0.020		
D 60 (mm):	0.038		
D 90 (mm):	0.265		
D 95 (mm):	0.362		

		Cu =	29.37354
Sieve Type:	No Gravel		
Notes:		Cc =	0.50923
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+31.9 1.0' Rt.	Hole #:	5A
Lab ID#:	3A	Depth (ft):	10-11.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	100.0	No. 4	100.0
No. 10	100.0	No. 40	91.0	No. 200	83.0
0.002 mm	20.7				

Gravel (-3" + No. 10)	0.0	Coarse Sand (-No. 10 + No. 40)	9.0
Fine Sand (-No. 40 +No. 200)	8.1	Silts (-No. 200 + 0.002mm)	62.3
Clay (-0.002mm)	20.7	Colloids (-0.001mm)	8.5

Liquid Limit:	34	Plastic Limit:	23	Plasticity Index:	11
		Activity:	0.53	Spec. Gravity:	2.542

AASHTO Classification:	A-6 (9)
Unified Classification:	CL

D 10 (mm):	0.001	NAT MT =	4.34
D 30 (mm):	0.003	LIQ =	-1.69666
D 50 (mm):	0.011		
D 60 (mm):	0.020		
D 90 (mm):	0.340		
D 95 (mm):	0.843		

		Cu =	18.06453
Sieve Type:	No Gravel		
Notes:		Cc =	0.55060
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***6***	Immediate Water Depth ***NA***	Start Date ***05/24/2010***	Hole Type ***cut profile***
Surface Elevation ***'***	Static Water Depth ***NA***	End Date ***05/24/2010***	Rig_Number ***0095-320***
Total Depth ***2.0'***	Driller ***Chris Hodge***	Latitude(83) __	
Location ***0+33.00 CL***	Geologist __	Longitude(83) __	

Elevation	Depth	Description				Jar #	NMC (%)	
	2.0	DGA and millings Bag #7				NMC #11A @ 2'	5.5	
		(Refusal @ 2)						
5								5
10								10
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+33 CL	Hole #:	6
Lab ID#:	7	Depth (ft):	0-2

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	97.2	3/8"	60.1	No. 4	38.2
No. 10	24.0	No. 40	17.6	No. 200	8.6
0.002 mm	2.9				

Gravel (-3" + No. 10)	76.0	Coarse Sand (-No. 10 + No. 40)	6.4
Fine Sand (-No. 40 +No. 200)	9.0	Silts (-No. 200 + 0.002mm)	5.7
Clay (-0.002mm)	2.9	Colloids (-0.001mm)	2.0

Liquid Limit:		Plastic Limit:		Plasticity Index:	
		Activity:	0.00	Spec. Gravity:	2.659

AASHTO Classification:	
Unified Classification:	

D 10 (mm):		NAT MT =	5.45
D 30 (mm):		LIQ =	
D 50 (mm):			
D 60 (mm):			
D 90 (mm):			
D 95 (mm):			

		Cu =	ND
Sieve Type:	With Gravel		
Notes:		Cc =	ND
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: *R-009-2010* Item Number:	*Laurel - I-75 MP 28.4-48.0*	Project Type: *Roadway* Project Manager: *Jason Wright*

Hole Number *6A*	Immediate Water Depth *NA*	Start Date *05/24/2010*	Hole Type *sample*
Surface Elevation *'*	Static Water Depth *NA*	End Date *05/24/2010*	Rig Number *0095-320*
Total Depth *2.3'*	Driller *Chris Hodge*	Latitude(83)	
Location *0+33.00 1.0' Rt.*	Geologist	Longitude(83)	

Lithology Elevation	Lithology Depth	Description (Overburden / Rock Core)	Sample No. / Std/Ky RQD	Depth (ft) / Run (ft)	Rec. (ft) / Rec (ft)	SPT Blows / Rec (%)	Sample Type / SDI (JS)	Remarks
			1A	2.0-2.3		50/0.30'	SPT	
5								5
		(Bottom of Hole 2.3') (Refusal @ 2.3)						
10		NB						10
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***10***	Immediate Water Depth ***NA***	Start Date ***05/25/2010***	Hole Type ***fill profile***
Surface Elevation ***'***	Static Water Depth ***NA***	End Date ***05/25/2010***	Rig_Number ***0095-320***
Total Depth ***15.0'***	Driller ***Chris Hodge***	Latitude(83) __	
Location ***0+42.00 CL***	Geologist __	Longitude(83) __	

Elevation	Depth	Description	Jar #	NMC (%)
5		Brown and gray clay Bag #8	NMC #12A @ 4'	13.0
10	10.5		NMC #13A @ 8'	11.4
		Moist brown clay Bag #9	NMC #14A @ 12'	24.0
15	15.0			
		(No Refusal)		
20				
25				
30				
35				
40				
45				
50				

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42 CL	Hole #:	10
Lab ID#:	8	Depth (ft):	0-10.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	93.7	No. 4	87.0
No. 10	79.1	No. 40	49.0	No. 200	26.5
0.002 mm	21.2				

Gravel (-3" + No. 10)	20.9	Coarse Sand (-No. 10 + No. 40)	30.0
Fine Sand (-No. 40 +No. 200)	22.5	Silts (-No. 200 + 0.002mm)	5.3
Clay (-0.002mm)	21.2	Colloids (-0.001mm)	14.5

Liquid Limit:	33	Plastic Limit:	21	Plasticity Index:	12
		Activity:	0.57	Spec. Gravity:	2.710

AASHTO Classification:	A-2-6 (0)
Unified Classification:	SC

D 10 (mm):	0.000	NAT MT =	12.21
D 30 (mm):	0.098	LIQ =	-0.73221
D 50 (mm):	0.447		
D 60 (mm):	0.749		
D 90 (mm):	6.468		
D 95 (mm):	10.931		

		Cu =	
Sieve Type:	With Gravel		
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42 CL	Hole #:	10
Lab ID#:	9	Depth (ft):	10.5-15

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	98.2	No. 4	94.2
No. 10	90.4	No. 40	87.1	No. 200	75.8
0.002 mm	30.2				

Gravel (-3" + No. 10)	9.6	Coarse Sand (-No. 10 + No. 40)	3.2
Fine Sand (-No. 40 +No. 200)	11.3	Silts (-No. 200 + 0.002mm)	45.6
Clay (-0.002mm)	30.2	Colloids (-0.001mm)	24.9

Liquid Limit:	34	Plastic Limit:	20	Plasticity Index:	14
		Activity:	0.46	Spec. Gravity:	2.541

AASHTO Classification:	A-6 (9)
Unified Classification:	CL

D 10 (mm):	0.000	NAT MT =	23.98
D 30 (mm):	0.002	LIQ =	0.28394
D 50 (mm):	0.010		
D 60 (mm):	0.021		
D 90 (mm):	1.685		
D 95 (mm):	5.477		

Sieve Type:	With Gravel	Cu =	
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: *R-009-2010* Item Number:	*Laurel - I-75 MP 28.4-48.0*	Project Type: *Roadway* Project Manager: *Jason Wright*

Hole Number *10A*	Immediate Water Depth *NA*	Start Date *05/24/2010*	Hole Type *sample*
Surface Elevation *'*	Static Water Depth *NA*	End Date *05/24/2010*	Rig_Number *0095-320*
Total Depth *15.0'*	Driller *Chris Hodge*	Latitude(83) __	
Location *0+42.00 1.0' Rt.*	Geologist __	Longitude(83) __	

Lithology Elevation	Lithology Depth	Description (Overburden / Rock Core)	Sample No. / Std/Ky RQD	Depth (ft) / Run (ft)	Rec. (ft) / Rec (ft)	SPT Blows / Rec (%)	Sample Type / SDI (JS)	Remarks
			1A	2.0-3.5		3-4-6	SPT	
5								5
			2A	5.0-6.5		5-5-6	SPT	
10								10
			3A	10.0-11.5		2-2-2	SPT	
15								15
20		(Bottom of Hole 15.0') (No Refusal) NB						20
25								25
30								30
35								35
40								40
45								45
50								50

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42 1.0' Rt.	Hole #:	10A
Lab ID#:	1A	Depth (ft):	2-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	93.2	No. 4	87.0
No. 10	79.3	No. 40	66.7	No. 200	60.3
0.002 mm	12.3				

Gravel (-3" + No. 10)	20.7	Coarse Sand (-No. 10 + No. 40)	12.5
Fine Sand (-No. 40 +No. 200)	6.4	Silts (-No. 200 + 0.002mm)	48.0
Clay (-0.002mm)	12.3	Colloids (-0.001mm)	8.2

Liquid Limit:	30	Plastic Limit:	22	Plasticity Index:	8
		Activity:	0.65	Spec. Gravity:	2.742

AASHTO Classification:	A-4 (3)
Unified Classification:	CL

D 10 (mm):	0.001	NAT MT =	23.73
D 30 (mm):	0.008	LIQ =	0.21610
D 50 (mm):	0.034		
D 60 (mm):	0.073		
D 90 (mm):	6.622		
D 95 (mm):	11.384		

		Cu =	54.05562
Sieve Type:	With Gravel		
Notes:		Cc =	0.58376
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42 1.0' Rt.	Hole #:	10A
Lab ID#:	2A	Depth (ft):	5-6.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	93.2	No. 4	87.0
No. 10	79.3	No. 40	66.7	No. 200	60.3
0.002 mm	12.3				

Gravel (-3" + No. 10)	20.7	Coarse Sand (-No. 10 + No. 40)	12.5
Fine Sand (-No. 40 +No. 200)	6.4	Silts (-No. 200 + 0.002mm)	48.0
Clay (-0.002mm)	12.3	Colloids (-0.001mm)	8.2

Liquid Limit:	30	Plastic Limit:	22	Plasticity Index:	8
		Activity:	0.65	Spec. Gravity:	2.742

AASHTO Classification:	A-4 (3)
Unified Classification:	CL

D 10 (mm):	0.001	NAT MT =	23.73
D 30 (mm):	0.008	LIQ =	0.21610
D 50 (mm):	0.034		
D 60 (mm):	0.073		
D 90 (mm):	6.622		
D 95 (mm):	11.384		

		Cu =	54.05562
Sieve Type:	With Gravel		
Notes:		Cc =	0.58376
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42 1.0' Rt.	Hole #:	10A
Lab ID#:	3A	Depth (ft):	10-11.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	100.0	No. 4	100.0
No. 10	100.0	No. 40	98.7	No. 200	89.8
0.002 mm	14.5				

Gravel (-3" + No. 10)	0.0	Coarse Sand (-No. 10 + No. 40)	1.3
Fine Sand (-No. 40 +No. 200)	9.0	Silts (-No. 200 + 0.002mm)	75.2
Clay (-0.002mm)	14.5	Colloids (-0.001mm)	8.9

Liquid Limit:	30	Plastic Limit:	21	Plasticity Index:	9
		Activity:	0.62	Spec. Gravity:	2.625

AASHTO Classification:	A-4 (8)
Unified Classification:	CL

D 10 (mm):	0.001	NAT MT =	25.10
D 30 (mm):	0.004	LIQ =	0.45501
D 50 (mm):	0.011		
D 60 (mm):	0.018		
D 90 (mm):	0.079		
D 95 (mm):	0.207		

		Cu =	15.69692
Sieve Type:	No Gravel		
Notes:		Cc =	0.87209
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***11***	Immediate Water Depth ***NA***	Start Date ***05/25/2010***	Hole Type ***fill profile***
Surface Elevation ***'***	Static Water Depth ***NA***	End Date ***05/25/2010***	Rig_Number ***0095-320***
Total Depth ***15.0'***	Driller ***Chris Hodge***	Latitude(83) __	
Location ***0+42.40 CL***	Geologist __	Longitude(83) __	

Elevation	Depth	Description				Jar #	NMC (%)	
5		Brown and gray clay with small boulders Bag #10				NMC #15 @ 4'	15.5	5
10						NMC #16 @ 8'	12.4	10
						NMC #17 @ 12'	17.3	
15	15.0							15
		(No Refusal)						
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42.4 CL	Hole #:	11
Lab ID#:	10	Depth (ft):	0-15

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	98.6	No. 4	93.2
No. 10	90.0	No. 40	83.6	No. 200	71.6
0.002 mm	24.8				

Gravel (-3" + No. 10)	10.0	Coarse Sand (-No. 10 + No. 40)	6.5
Fine Sand (-No. 40 +No. 200)	12.0	Silts (-No. 200 + 0.002mm)	46.8
Clay (-0.002mm)	24.8	Colloids (-0.001mm)	18.8

Liquid Limit:	33	Plastic Limit:	20	Plasticity Index:	13
		Activity:	0.52	Spec. Gravity:	2.746

AASHTO Classification:	A-6 (8)
Unified Classification:	CL

D 10 (mm):	0.000	NAT MT =	15.07
D 30 (mm):	0.003	LIQ =	-0.37909
D 50 (mm):	0.014		
D 60 (mm):	0.031		
D 90 (mm):	1.983		
D 95 (mm):	5.985		

		Cu =	
Sieve Type:	With Gravel		
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: ***R-009-2010*** Item Number:	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway*** Project Manager: ***Jason Wright***

Hole Number ***11A***	Immediate Water Depth ***NA***	Start Date ***05/25/2010***	Hole Type ***sample***
Surface Elevation ___'	Static Water Depth ***NA***	End Date ***05/25/2010***	Rig_Number ***0095-320***
Total Depth ***15.0'***	Driller ***Chris Hodge***	Latitude(83) ___	
Location ***0+42.40 1.0' Rt.***	Geologist ___	Longitude(83) ___	

Lithology		Description	Sample No.	Depth (ft)	Rec. (ft)	SPT Blows	Sample Type	Remarks
Elevation	Depth	Overburden / Rock Core	Std/Ky RQD	Run (ft)	Rec (ft)	Rec (%)	SDI (JS)	
			1A	2.0-3.5		3-4-6	SPT	
5			2A	5.0-6.5		5-5-6	SPT	5
10			3A	10.0-11.5		2-2-2	SPT	10
15								15
20		(Bottom of Hole 15.0') (No Refusal) NB						20
25								25
30								30
35								35
40								40
45								45
50								50

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42.4 1.0' Rt.	Hole #:	11A
Lab ID#:	1A	Depth (ft):	2-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	91.8	No. 4	88.1
No. 10	82.0	No. 40	74.1	No. 200	62.9
0.002 mm	8.4				

Gravel (-3" + No. 10)	18.0	Coarse Sand (-No. 10 + No. 40)	7.9
Fine Sand (-No. 40 +No. 200)	11.3	Silts (-No. 200 + 0.002mm)	54.4
Clay (-0.002mm)	8.4	Colloids (-0.001mm)	5.6

Liquid Limit:	28	Plastic Limit:	20	Plasticity Index:	8
		Activity:	0.95	Spec. Gravity:	2.548

AASHTO Classification:	A-4 (3)
Unified Classification:	CL

D 10 (mm):	0.002	NAT MT =	11.11
D 30 (mm):	0.008	LIQ =	-1.11111
D 50 (mm):	0.032		
D 60 (mm):	0.062		
D 90 (mm):	6.769		
D 95 (mm):	12.434		

		Cu =	27.90171
Sieve Type:	With Gravel		
Notes:		Cc =	0.51389
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Research Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42.4 1.0' Rt.	Hole #:	11A
Lab ID#:	2A	Depth (ft):	5-6.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	94.4	No. 4	87.1
No. 10	80.8	No. 40	72.1	No. 200	60.5
0.002 mm	7.9				

Gravel (-3" + No. 10)	19.2	Coarse Sand (-No. 10 + No. 40)	8.8
Fine Sand (-No. 40 +No. 200)	11.6	Silts (-No. 200 + 0.002mm)	52.6
Clay (-0.002mm)	7.9	Colloids (-0.001mm)	4.6

Liquid Limit:	28	Plastic Limit:	20	Plasticity Index:	8
		Activity:	1.01	Spec. Gravity:	2.558

AASHTO Classification:	A-4 (3)
Unified Classification:	CL

D 10 (mm):	0.002	NAT MT =	10.17
D 30 (mm):	0.009	LIQ =	-1.22881
D 50 (mm):	0.036		
D 60 (mm):	0.072		
D 90 (mm):	6.261		
D 95 (mm):	10.203		

		Cu =	31.32333
Sieve Type:	With Gravel		
Notes:		Cc =	0.50214
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42.4 1.0' Rt.	Hole #:	11A
Lab ID#:	3A	Depth (ft):	10-11.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	95.6	No. 4	91.9
No. 10	86.1	No. 40	82.0	No. 200	68.5
0.002 mm	12.6				

Gravel (-3" + No. 10)	13.9	Coarse Sand (-No. 10 + No. 40)	4.0
Fine Sand (-No. 40 +No. 200)	13.6	Silts (-No. 200 + 0.002mm)	55.8
Clay (-0.002mm)	12.6	Colloids (-0.001mm)	9.5

Liquid Limit:	29	Plastic Limit:	19	Plasticity Index:	10
		Activity:	0.79	Spec. Gravity:	2.533

AASHTO Classification:	A-4 (5)
Unified Classification:	CL

D 10 (mm):	0.001	NAT MT =	12.45
D 30 (mm):	0.006	LIQ =	-0.65472
D 50 (mm):	0.023		
D 60 (mm):	0.043		
D 90 (mm):	3.578		
D 95 (mm):	8.491		

		Cu =	38.84660
Sieve Type:	With Gravel		
Notes:		Cc =	0.79105
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***12***	Immediate Water Depth ***NA***	Start Date ***05/25/2010***	Hole Type ***fill profile***
Surface Elevation ***'***	Static Water Depth ***NA***	End Date ***05/25/2010***	Rig_Number ***0095-320***
Total Depth ***15.0'***	Driller ***Chris Hodge***	Latitude(83) __	
Location ***0+42.55 CL***	Geologist __	Longitude(83) __	

Elevation	Depth	Description				Jar #	NMC (%)	
5		Red clay with small boulders and sand deposits Bag #11				NMC #18A @ 4'	18.5	5
10						NMC #19A @ 8'	17.1	10
15	15.0					NMC #20A @ 12'	14.6	15
		(No Refusal)						
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42.55 CL	Hole #:	12
Lab ID#:	11	Depth (ft):	0-15

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	98.3	No. 4	95.9
No. 10	94.0	No. 40	85.9	No. 200	54.7
0.002 mm	17.2				

Gravel (-3" + No. 10)	6.0	Coarse Sand (-No. 10 + No. 40)	8.1
Fine Sand (-No. 40 +No. 200)	31.2	Silts (-No. 200 + 0.002mm)	37.4
Clay (-0.002mm)	17.2	Colloids (-0.001mm)	12.7

Liquid Limit:	28	Plastic Limit:	20	Plasticity Index:	8
		Activity:	0.46	Spec. Gravity:	2.698

AASHTO Classification:	A-4 (2)
Unified Classification:	CL

D 10 (mm):	0.000	NAT MT =	16.74
D 30 (mm):	0.007	LIQ =	-0.40703
D 50 (mm):	0.048		
D 60 (mm):	0.101		
D 90 (mm):	0.932		
D 95 (mm):	3.171		

Cu =

Cc =

Sieve Type:	With Gravel
Notes:	
Silts + Clays + Colloids:	N/A

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: *R-009-2010* Item Number:	*Laurel - I-75 MP 28.4-48.0*	Project Type: *Roadway* Project Manager: *Jason Wright*

Hole Number *12A*	Immediate Water Depth *NA*	Start Date *05/25/2010*	Hole Type *sample*
Surface Elevation *'*	Static Water Depth *NA*	End Date *05/25/2010*	Rig_Number *0095-320*
Total Depth *15.0'*	Driller *Chris Hodge*	Latitude(83) __	
Location *0+42.55 1.0' Rt.*	Geologist __	Longitude(83) __	

Lithology		Description	Sample No.	Depth (ft)	Rec. (ft)	SPT Blows	Sample Type	Remarks
Elevation	Depth	Overburden / Rock Core	Std/Ky RQD	Run (ft)	Rec (ft)	Rec (%)	SDI (JS)	
			1A	2.0-3.5		2-3-4	SPT	
5								5
			2A	5.0-6.5		5-15-38	SPT	
10								10
			3A	10.0-11.5		5-7-29	SPT	
15								15
20		(Bottom of Hole 15.0') (No Refusal) NB						20
25								25
30								30
35								35
40								40
45								45
50								50

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42.55 1.0' Rt.	Hole #:	12A
Lab ID#:	1A	Depth (ft):	2-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	100.0	No. 4	100.0
No. 10	100.0	No. 40	98.9	No. 200	73.3
0.002 mm	13.2				

Gravel (-3" + No. 10)	0.0	Coarse Sand (-No. 10 + No. 40)	1.1
Fine Sand (-No. 40 +No. 200)	25.6	Silts (-No. 200 + 0.002mm)	60.1
Clay (-0.002mm)	13.2	Colloids (-0.001mm)	9.2

Liquid Limit:	27	Plastic Limit:	19	Plasticity Index:	8
		Activity:	0.61	Spec. Gravity:	2.769

AASHTO Classification:	A-4 (4)
Unified Classification:	CL

D 10 (mm):	0.001	NAT MT =	16.07
D 30 (mm):	0.006	LIQ =	-0.36607
D 50 (mm):	0.018		
D 60 (mm):	0.034		
D 90 (mm):	0.232		
D 95 (mm):	0.326		

		Cu =	29.43000
Sieve Type:	No Gravel		
Notes:		Cc =	0.79144
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42.55 1.0' Rt.	Hole #:	12A
Lab ID#:	2A	Depth (ft):	5-6.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	100.0	No. 4	100.0
No. 10	100.0	No. 40	98.9	No. 200	73.3
0.002 mm	13.2				

Gravel (-3" + No. 10)	0.0	Coarse Sand (-No. 10 + No. 40)	1.1
Fine Sand (-No. 40 +No. 200)	25.6	Silts (-No. 200 + 0.002mm)	60.1
Clay (-0.002mm)	13.2	Colloids (-0.001mm)	9.2

Liquid Limit:	27	Plastic Limit:	19	Plasticity Index:	8
		Activity:	0.61	Spec. Gravity:	2.769

AASHTO Classification:	A-4 (4)
Unified Classification:	CL

D 10 (mm):	0.001	NAT MT =	16.07
D 30 (mm):	0.006	LIQ =	-0.36607
D 50 (mm):	0.018		
D 60 (mm):	0.034		
D 90 (mm):	0.232		
D 95 (mm):	0.326		

Sieve Type:	No Gravel	Cu =	29.43000
Notes:		Cc =	0.79144
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+42.55 1.0' Rt.	Hole #:	12A
Lab ID#:	3A	Depth (ft):	10-11.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	100.0	No. 4	100.0
No. 10	100.0	No. 40	96.3	No. 200	44.9
0.002 mm	15.9				

Gravel (-3" + No. 10)	0.0	Coarse Sand (-No. 10 + No. 40)	3.7
Fine Sand (-No. 40 +No. 200)	51.3	Silts (-No. 200 + 0.002mm)	29.0
Clay (-0.002mm)	15.9	Colloids (-0.001mm)	12.6

Liquid Limit:		Plastic Limit:		Plasticity Index:	
		Activity:	0.00	Spec. Gravity:	2.553

AASHTO Classification:	
Unified Classification:	

D 10 (mm):		NAT MT =	15.89
D 30 (mm):		LIQ =	
D 50 (mm):			
D 60 (mm):			
D 90 (mm):			
D 95 (mm):			

		Cu =	ND
Sieve Type:	No Gravel		
Notes:		Cc =	ND
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***13***	Immediate Water Depth ***NA***	Start Date ***05/25/2010***	Hole Type ***fill profile***
Surface Elevation ***'***	Static Water Depth ***NA***	End Date ***05/25/2010***	Rig_Number ***0095-320***
Total Depth ***10.3'***	Driller ***Chris Hodge***	Latitude(83) __	
Location ***0+44.00 CL***	Geologist __	Longitude(83) __	

Elevation	Depth	Description				Jar #	NMC (%)	
5		Gray sandy clay with small boulders Bag #12				NMC #21a @ 4'	13.0	5
						NMC #22a @ 8'	14.2	
10	10.3							10
		(Refusal @ 10.3)						
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+44 CL	Hole #:	13
Lab ID#:	12	Depth (ft):	0-10.3

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	82.2	No. 4	73.1
No. 10	64.6	No. 40	56.2	No. 200	35.8
0.002 mm	12.3				

Gravel (-3" + No. 10)	35.4	Coarse Sand (-No. 10 + No. 40)	8.4
Fine Sand (-No. 40 +No. 200)	20.4	Silts (-No. 200 + 0.002mm)	23.5
Clay (-0.002mm)	12.3	Colloids (-0.001mm)	9.6

Liquid Limit:	26	Plastic Limit:	17	Plasticity Index:	9
		Activity:	0.73	Spec. Gravity:	2.553

AASHTO Classification:	A-4 (0)
Unified Classification:	SC

D 10 (mm):	0.001	NAT MT =	13.61
D 30 (mm):	0.031	LIQ =	-0.37718
D 50 (mm):	0.250		
D 60 (mm):	0.854		
D 90 (mm):	12.867		
D 95 (mm):	15.635		

		Cu =	768.76042
Sieve Type:	With Gravel		
Notes:		Cc =	0.99129
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: *R-009-2010* Item Number:	*Laurel - I-75 MP 28.4-48.0*	Project Type: *Roadway* Project Manager: *Jason Wright*

Hole Number *13A*	Immediate Water Depth *NA*	Start Date *05/25/2010*	Hole Type *sample*
Surface Elevation *'*	Static Water Depth *NA*	End Date *05/25/2010*	Rig_Number *0095-320*
Total Depth *10.3'*	Driller *Chris Hodge*	Latitude(83) __	
Location *0+44.00 1.0' Rt.*	Geologist __	Longitude(83) __	

Lithology		Description	Sample No.	Depth (ft)	Rec. (ft)	SPT Blows	Sample Type	Remarks
Elevation	Depth	Overburden / Rock Core	Std/Ky RQD	Run (ft)	Rec (ft)	Rec (%)	SDI (JS)	
			1A	2.0-3.5		3-4-5	SPT	
5								5
			2A	5.0-6.5		4-12-38	SPT	
10								10
			3A	10.0-10.3		50/0.30'	SPT	
15		(Bottom of Hole 10.3') (Refusal @ 10.3)						15
		SB						
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+44 1.0' Rt.	Hole #:	13A
Lab ID#:	1A	Depth (ft):	2-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	87.0	No. 4	85.1
No. 10	84.3	No. 40	67.9	No. 200	21.5
0.002 mm	5.0				

Gravel (-3" + No. 10)	15.7	Coarse Sand (-No. 10 + No. 40)	16.3
Fine Sand (-No. 40 +No. 200)	46.5	Silts (-No. 200 + 0.002mm)	16.5
Clay (-0.002mm)	5.0	Colloids (-0.001mm)	2.6

Liquid Limit:		Plastic Limit:		Plasticity Index:	
		Activity:	0.00	Spec. Gravity:	2.604

AASHTO Classification:	
Unified Classification:	

D 10 (mm):		NAT MT =	15.08
D 30 (mm):		LIQ =	
D 50 (mm):			
D 60 (mm):			
D 90 (mm):			
D 95 (mm):			

Sieve Type:	With Gravel	Cu =	ND
Notes:		Cc =	ND
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+44 1.0' Rt.	Hole #:	13A
Lab ID#:	2A	Depth (ft):	5-6.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	91.4	No. 4	85.2
No. 10	80.5	No. 40	76.1	No. 200	60.9
0.002 mm	7.0				

Gravel (-3" + No. 10)	19.5	Coarse Sand (-No. 10 + No. 40)	4.4
Fine Sand (-No. 40 +No. 200)	15.2	Silts (-No. 200 + 0.002mm)	53.9
Clay (-0.002mm)	7.0	Colloids (-0.001mm)	5.3

Liquid Limit:	26	Plastic Limit:	17	Plasticity Index:	9
		Activity:	1.28	Spec. Gravity:	2.570

AASHTO Classification:	A-4 (3)
Unified Classification:	CL

D 10 (mm):	0.002	NAT MT =	9.87
D 30 (mm):	0.009	LIQ =	-0.79240
D 50 (mm):	0.036		
D 60 (mm):	0.070		
D 90 (mm):	8.152		
D 95 (mm):	12.723		

		Cu =	28.86030
Sieve Type:	With Gravel		
Notes:		Cc =	0.51043
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+44 1.0' Rt.	Hole #:	13A
Lab ID#:	3A	Depth (ft):	10-10.3

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	91.4	No. 4	85.2
No. 10	80.5	No. 40	76.1	No. 200	60.9
0.002 mm	7.0				

Gravel (-3" + No. 10)	19.5	Coarse Sand (-No. 10 + No. 40)	4.4
Fine Sand (-No. 40 +No. 200)	15.2	Silts (-No. 200 + 0.002mm)	53.9
Clay (-0.002mm)	7.0	Colloids (-0.001mm)	5.3

Liquid Limit:	26	Plastic Limit:	17	Plasticity Index:	9
		Activity:	1.28	Spec. Gravity:	2.570

AASHTO Classification:	A-4 (3)
Unified Classification:	CL

D 10 (mm):	0.002	NAT MT =	9.87
D 30 (mm):	0.009	LIQ =	-0.79240
D 50 (mm):	0.036		
D 60 (mm):	0.070		
D 90 (mm):	8.152		
D 95 (mm):	12.723		
		Cu =	28.86030
		Cc =	0.51043

Sieve Type:	With Gravel
Notes:	
Silts + Clays + Colloids:	N/A

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: *R-009-2010* Item Number:	*Laurel - I-75 MP 28.4-48.0*	Project Type: *Roadway* Project Manager: *Jason Wright*

Hole Number *14*	Immediate Water Depth *NA*	Start Date *05/25/2010*	Hole Type *fill profile*
Surface Elevation *'*	Static Water Depth *NA*	End Date *05/25/2010*	Rig_Number *0095-320*
Total Depth *5.4'*	Driller *Chris Hodge*	Latitude(83)	
Location *0+43.95 CL*	Geologist	Longitude(83)	

Elevation	Depth	Description				Jar #	NMC (%)	
5	5.4	gray and brown clay with small boulders and sand deposits Bag #13				NMC #23A @ 4'	11.1	5
		(Refusal @ 5.4)						
10								10
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+43.95 CL	Hole #:	14
Lab ID#:	13	Depth (ft):	0-5.4

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	97.1	No. 4	95.4
No. 10	93.7	No. 40	88.7	No. 200	34.1
0.002 mm	10.7				

Gravel (-3" + No. 10)	6.3	Coarse Sand (-No. 10 + No. 40)	5.0
Fine Sand (-No. 40 +No. 200)	54.6	Silts (-No. 200 + 0.002mm)	23.4
Clay (-0.002mm)	10.7	Colloids (-0.001mm)	5.9

Liquid Limit:		Plastic Limit:		Plasticity Index:	
		Activity:	0.00	Spec. Gravity:	2.585

AASHTO Classification:	
Unified Classification:	

D 10 (mm):		NAT MT =	11.08
D 30 (mm):		LIQ =	
D 50 (mm):			
D 60 (mm):			
D 90 (mm):			
D 95 (mm):			
		Cu =	ND
Sieve Type:	With Gravel		
Notes:		Cc =	ND
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: *R-009-2010* Item Number:	*Laurel - I-75 MP 28.4-48.0*	Project Type: *Roadway* Project Manager: *Jason Wright*

Hole Number *14A*	Immediate Water Depth *NA*	Start Date *05/25/2010*	Hole Type *sample*
Surface Elevation *'*	Static Water Depth *NA*	End Date *05/25/2010*	Rig_Number *0095-320*
Total Depth *5.4'*	Driller *Chris Hodge*	Latitude(83)	
Location *0+43.95 1.0' Rt.*	Geologist	Longitude(83)	

Lithology Elevation	Lithology Depth	Description (Overburden / Rock Core)	Sample No. / Std/Ky RQD	Depth (ft) / Run (ft)	Rec. (ft) / Rec (ft)	SPT Blows / Rec (%)	Sample Type / SDI (JS)	Remarks
			1A	2.0-3.5		4-7-8	SPT	
5			2A	5.0-5.4		50/0.40'	SPT	5
10		(Bottom of Hole 5.4') (Refusal @ 5.4) SB						10
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+43.95 1.0' Rt.	Hole #:	14A
Lab ID#:	1A	Depth (ft):	2-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	92.8	No. 4	89.6
No. 10	86.2	No. 40	78.3	No. 200	60.7
0.002 mm	14.5				

Gravel (-3" + No. 10)	13.8	Coarse Sand (-No. 10 + No. 40)	7.8
Fine Sand (-No. 40 +No. 200)	17.6	Silts (-No. 200 + 0.002mm)	46.2
Clay (-0.002mm)	14.5	Colloids (-0.001mm)	4.9

Liquid Limit:	27	Plastic Limit:	20	Plasticity Index:	7
		Activity:	0.48	Spec. Gravity:	2.569

AASHTO Classification:	A-4 (2)
Unified Classification:	CL-ML

D 10 (mm):	0.001	NAT MT =	6.47
D 30 (mm):	0.007	LIQ =	-1.93250
D 50 (mm):	0.032		
D 60 (mm):	0.071		
D 90 (mm):	5.226		
D 95 (mm):	11.776		

		Cu =	49.14825
Sieve Type:	With Gravel		
Notes:		Cc =	0.44291
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+43.95 1.0' Rt.	Hole #:	14A
Lab ID#:	2A	Depth (ft):	5-5.4

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	100.0	3/8"	92.8	No. 4	89.6
No. 10	86.2	No. 40	78.3	No. 200	60.7
0.002 mm	14.5				

Gravel (-3" + No. 10)	13.8	Coarse Sand (-No. 10 + No. 40)	7.8
Fine Sand (-No. 40 +No. 200)	17.6	Silts (-No. 200 + 0.002mm)	46.2
Clay (-0.002mm)	14.5	Colloids (-0.001mm)	4.9

Liquid Limit:	27	Plastic Limit:	20	Plasticity Index:	7
		Activity:	0.48	Spec. Gravity:	2.569

AASHTO Classification:	A-4 (2)
Unified Classification:	CL-ML

D 10 (mm):	0.001	NAT MT =	6.47
D 30 (mm):	0.007	LIQ =	-1.93250
D 50 (mm):	0.032		
D 60 (mm):	0.071		
D 90 (mm):	5.226		
D 95 (mm):	11.776		

		Cu =	49.14825
Sieve Type:	With Gravel		
Notes:		Cc =	0.44291
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***15***	Immediate Water Depth ***NA***	Start Date ***05/25/2010***	Hole Type ***fill profile***
Surface Elevation ***'***	Static Water Depth ***NA***	End Date ***05/25/2010***	Rig_Number ***0095-320***
Total Depth ***3.4'***	Driller ***Chris Hodge***	Latitude(83) __	
Location ***0+45.00 CL***	Geologist __	Longitude(83) __	

Elevation	Depth	Description				Jar #	NMC (%)	
	3.4	Brown and gray clay with small boulders Bag #14				NMC #24A @ 2'	12.9	
5		(Refusal @ 3.4)						5
10								10
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+45 CL	Hole #:	15
Lab ID#:	14	Depth (ft):	0-3.4

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	98.1	3/8"	94.0	No. 4	88.4
No. 10	84.5	No. 40	78.8	No. 200	55.1
0.002 mm	18.6				

Gravel (-3" + No. 10)	15.5	Coarse Sand (-No. 10 + No. 40)	5.7
Fine Sand (-No. 40 +No. 200)	23.7	Silts (-No. 200 + 0.002mm)	36.4
Clay (-0.002mm)	18.6	Colloids (-0.001mm)	11.1

Liquid Limit:	26	Plastic Limit:	19	Plasticity Index:	7
		Activity:	0.38	Spec. Gravity:	2.654

AASHTO Classification:	A-4 (1)
Unified Classification:	CL-ML

D 10 (mm):	0.000	NAT MT =	12.89
D 30 (mm):	0.006	LIQ =	-0.87273
D 50 (mm):	0.045		
D 60 (mm):	0.108		
D 90 (mm):	5.792		
D 95 (mm):	11.321		

		Cu =	
Sieve Type:	With Gravel		
Notes:		Cc =	
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***15A***	Immediate Water Depth ***NA***	Start Date ***05/25/2010***	Hole Type ***sample***
Surface Elevation ***'***	Static Water Depth ***NA***	End Date ***05/25/2010***	Rig_Number ***0095-320***
Total Depth ***3.4'***	Driller ***Chris Hodge***	Latitude(83) __	
Location ***0+45.00 1.0' Rt.***	Geologist __	Longitude(83) __	

Lithology Elevation	Lithology Depth	Description (Overburden / Rock Core)	Sample No. / Std/Ky RQD	Depth (ft) / Run (ft)	Rec. (ft) / Rec (ft)	SPT Blows / Rec (%)	Sample Type / SDI (JS)	Remarks
			1A	2.0-3.4		3-5-50/0.40'	SPT	
5		(Bottom of Hole 3.4') (Refusal @ 3.4) SB						5
10								10
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+45 1.0' Rt.	Hole #:	15A
Lab ID#:	1A	Depth (ft):	2-3.4

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	95.8	3/8"	83.2	No. 4	75.5
No. 10	70.7	No. 40	67.2	No. 200	53.8
0.002 mm	5.2				

Gravel (-3" + No. 10)	29.3	Coarse Sand (-No. 10 + No. 40)	3.5
Fine Sand (-No. 40 +No. 200)	13.4	Silts (-No. 200 + 0.002mm)	48.6
Clay (-0.002mm)	5.2	Colloids (-0.001mm)	3.4

Liquid Limit:	25	Plastic Limit:	19	Plasticity Index:	6
		Activity:	1.16	Spec. Gravity:	2.631

AASHTO Classification:	A-4 (1)
Unified Classification:	CL-ML

D 10 (mm):	0.003	NAT MT =	13.47
D 30 (mm):	0.013	LIQ =	-0.92200
D 50 (mm):	0.057		
D 60 (mm):	0.168		
D 90 (mm):	13.788		
D 95 (mm):	18.168		

		Cu =	58.68001
Sieve Type:	With Gravel		
Notes:		Cc =	0.33708
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

SUBSURFACE PROFILE LOG

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Hole Number ***16***	Immediate Water Depth ***NA***	Start Date ***05/25/2010***	Hole Type ***fill profile***
Surface Elevation ***'***	Static Water Depth ***NA***	End Date ***05/25/2010***	Rig_Number ***0095-320***
Total Depth ***5.2'***	Driller ***Chris Hodge***	Latitude(83) __	
Location ***0+47.85 CL***	Geologist __	Longitude(83) __	

Elevation	Depth	Description				Jar #	NMC (%)	
5	5.2	Brown and gray clay with small boulders Bag #15				NMC #25A @ 4'	8.7	5
		(Refusal @ 5.2)						
10								10
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Bag # - indicates bag was obtained in this boring
Soil Type # - references soil type from bag sample obtained in a previous boring

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+47.85 CL	Hole #:	16
Lab ID#:	15	Depth (ft):	0-5.2

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	98.0	3/8"	84.9	No. 4	72.8
No. 10	60.9	No. 40	51.8	No. 200	35.0
0.002 mm	11.5				

Gravel (-3" + No. 10)	39.1	Coarse Sand (-No. 10 + No. 40)	9.1
Fine Sand (-No. 40 +No. 200)	16.8	Silts (-No. 200 + 0.002mm)	23.4
Clay (-0.002mm)	11.5	Colloids (-0.001mm)	9.0

Liquid Limit:	25	Plastic Limit:	18	Plasticity Index:	7
		Activity:	0.61	Spec. Gravity:	2.566

AASHTO Classification:	A-2-4 (0)
Unified Classification:	SC-SM

D 10 (mm):	0.001	NAT MT =	8.74
D 30 (mm):	0.035	LIQ =	-1.32302
D 50 (mm):	0.354		
D 60 (mm):	1.728		
D 90 (mm):	12.459		
D 95 (mm):	16.214		

		Cu =	1316.37727
Sieve Type:	With Gravel		
Notes:		Cc =	0.53291
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Drilling Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

DRILLER'S SUBSURFACE LOG

Project ID: *R-009-2010* Item Number:	*Laurel - I-75 MP 28.4-48.0*	Project Type: *Roadway* Project Manager: *Jason Wright*

Hole Number *16A*	Immediate Water Depth *NA*	Start Date *05/25/2010*	Hole Type *sample*
Surface Elevation *'*	Static Water Depth *NA*	End Date *05/25/2010*	Rig_Number *0095-320*
Total Depth *5.2'*	Driller *Chris Hodge*	Latitude(83)	
Location *0+47.85 1.0' Rt.*	Geologist	Longitude(83)	

Lithology Elevation	Lithology Depth	Description (Overburden / Rock Core)	Sample No. / Std/Ky RQD	Depth (ft) / Run (ft)	Rec. (ft) / Rec (ft)	SPT Blows / Rec (%)	Sample Type / SDI (JS)	Remarks
			1A	2.0-3.5		10-8-10	SPT	
5			2A	5.0-5.2		50/0.20'	SPT	5
10		(Bottom of Hole 5.2') (Refusal @ 5.2) SB						10
15								15
20								20
25								25
30								30
35								35
40								40
45								45
50								50

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Soil Classification and Gradation Test Results

Project ID: ***R-009-2010***	***Laurel - I-75 MP 28.4-48.0***	Project Type: ***Roadway***
Item Number:		Project Manager: ***Jason Wright***

Location:	0+47.85 1.0' Rt.	Hole #:	16A
Lab ID#:	1A	Depth (ft):	2-3.5

Sieve Size	%Passing	Sieve Size	%Passing	Sieve Size	%Passing
3"	100.0	2"	100.0	1"	100.0
3/4"	96.3	3/8"	83.7	No. 4	71.3
No. 10	61.1	No. 40	54.6	No. 200	45.9
0.002 mm	5.1				

Gravel (-3" + No. 10)	38.9	Coarse Sand (-No. 10 + No. 40)	6.6
Fine Sand (-No. 40 +No. 200)	8.7	Silts (-No. 200 + 0.002mm)	40.8
Clay (-0.002mm)	5.1	Colloids (-0.001mm)	3.6

Liquid Limit:	26	Plastic Limit:	19	Plasticity Index:	7
		Activity:	1.36	Spec. Gravity:	2.553

AASHTO Classification:	A-4 (1)
Unified Classification:	GC-GM

D 10 (mm):	0.003	NAT MT =	3.54
D 30 (mm):	0.018	LIQ =	-2.20810
D 50 (mm):	0.170		
D 60 (mm):	1.530		
D 90 (mm):	13.419		
D 95 (mm):	17.666		

		Cu =	496.96215
Sieve Type:	With Gravel		
Notes:		Cc =	0.07055
Silts + Clays + Colloids:	N/A		

Remarks:

Copies:

Geotech Firm: Kentucky Transportation Cabinet
For: Division of Structural Design
Geotechnical Branch

Natural Moisture Report For Jar Samples

Project ID: ***R-009-2010***
Item Number:

Laurel - I-75 MP 28.4-48.0

Project Type: ***Roadway***
Project Manager: ***Jason Wright***

Location	Hole	Depth	Sample Number	Bag Number	Natural Moisture
0+28.90 CL	1	4.0	1A	1	12.0954
		8.0	2A	1	10.26522
		12.0	3A	2	24.28452
0+29.75	2	4.0	4A	3	16.53809
		8.0	5A	3	10.56976
		12.0	6A	3	18.5567
0+29.85	3	3.0	7A	4	12.94816
0+30.80	4	3.0	8A	5	17.9404
0+31.90	5	4.0	9A	6	7.431669
		8.0	10A	6	12.09564
0+33.00	6	2.0	11A	7	5.454193
0+42.00	10	4.0	12A	8	13.01657
		8.0	13A	8	11.4105
		12.0	14A	9	23.97512
0+42.40	11	4.0	15	10	15.54356
		8.0	16	10	12.35069
		12.0	17	10	17.32107
0+42.55	12	4.0	18A	11	18.45574
		8.0	19A	11	17.14634
		12.0	20A	11	14.62912
0+44.00	13	4.0	21a	12	13.03004
		8.0	22a	12	14.18065
0+43.95	14	4.0	23A	13	11.08051
0+45.00	15	2.0	24A	14	12.89086
0+47.85	16	4.0	25A	15	8.738829

Sample Summary

Total Samples	25
Total Bags	15
Total Jars	25

Project ID: R-009-2010
Location: Laurel
Item No:

Hole	Sample Type	Depth	Liquid Limit	Plastic Limit	PI	D50	%<#200 Sieve	AASHTO	Classif-ication	Water Content (%)	Dry Density (pcf)	CBR
1	fill bag	0	29	19	10	0.087	49	A-4 (2)	SC	11.2		
1	jar									12.1		
1	jar									10.3		
1	fill bag	9	30	20	10	0.018	66	A-4 (5)	CL	24.3		
1	jar									24.3		
1A	SPT	2	29	20	9	0.144	45	A-4 (1)	SC	9.5		
1A	SPT	5	29	20	9	0.144	45	A-4 (1)	SC	9.5		
1A	SPT	10	29	21	8	0.689	37	A-4 (0)	GC	13.9		
2	fill bag	0	32	20	12	0.018	66	A-6 (6)	CL	15.2		
2	jar									16.5		
2	jar									10.6		
2	jar									18.6		
2A	SPT	2	34	24	10	0.038	58	A-4 (4)	ML	12.6		
2A	SPT	5	34	23	11	0.023	63	A-6 (5)	CL	13.9		
2A	SPT	10	34	23	11	0.023	63	A-6 (5)	CL	13.9		
3	fill bag	0	32	21	11	0.078	50	A-6 (3)	SC	12.9		
3	jar									12.9		
3A	SPT	2	27	20	7	0.061	52	A-4 (1)	CL-ML	6.4		
4	fill bag	0	26	19	7	0.017	70	A-4 (3)	CL-ML	17.9		
4	jar									17.9		
4A	SPT	2	28	23	5	0.013	82	A-4 (3)	ML	19.0		
5	fill bag	0					39			9.8		
5	jar									7.4		
5	jar									12.1		
5A	SPT	2					20			6.1		
5A	SPT	5	29	22	7	0.020	70	A-4 (3)	CL-ML	9.4		
5A	SPT	10	34	23	11	0.011	83	A-6 (9)	CL	4.3		
6	cut bag	0					9			5.5		
6	jar									5.5		
6A	SPT									13.2		
10	fill bag	0	33	21	12	0.447	27	A-2-6 (0)	SC	12.2		
10	jar									13.0		
10	jar									11.4		
10	fill bag	10.5	34	20	14	0.010	76	A-6 (9)	CL	24.0		
10	jar									24.0		
10A	SPT	2	30	22	8	0.034	60	A-4 (3)	CL	23.7		
10A	SPT	5	30	22	8	0.034	60	A-4 (3)	CL	23.7		
10A	SPT	10	30	21	9	0.011	90	A-4 (8)	CL	25.1		
11	fill bag	0	33	20	13	0.014	72	A-6 (8)	CL	15.1		
11	jar									15.5		
11	jar									12.4		
11	jar									17.3		
11A	SPT	2	28	20	8	0.032	63	A-4 (3)	CL	11.1		
11A	SPT	5	28	20	8	0.036	61	A-4 (3)	CL	10.2		
11A	SPT	10	29	19	10	0.023	68	A-4 (5)	CL	12.5		
12	fill bag	0	28	20	8	0.048	55	A-4 (2)	CL	16.7		
12	jar									18.5		
12	jar									17.1		
12	jar									14.6		
12A	SPT	2	27	19	8	0.018	73	A-4 (4)	CL	16.1		

Total Jars: 25
Total SPT: 29
Total ST: 0
Total Cut Bags: 1
Total Fill Bags: 14

Project ID: R-009-2010
Location: Laurel
Item No:

Hole	Sample Type	Depth	Liquid Limit	Plastic Limit	PI	D50	%<#200 Sieve	AASHTO	Classif-ication	Water Content (%)	Dry Density (pcf)	CBR
12A	SPT	5	27	19	8	0.018	73	A-4 (4)	CL	16.1		
12A	SPT	10					45			15.9		
13	fill bag	0	26	17	9	0.250	36	A-4 (0)	SC	13.6		
13	jar									13.0		
13	jar									14.2		
13A	SPT	2					21			15.1		
13A	SPT	5	26	17	9	0.036	61	A-4 (3)	CL	9.9		
13A	SPT	10	26	17	9	0.036	61	A-4 (3)	CL	9.9		
14	fill bag	0					34			11.1		
14	jar									11.1		
14A	SPT	2	27	20	7	0.032	61	A-4 (2)	CL-ML	6.5		
14A	SPT	5	27	20	7	0.032	61	A-4 (2)	CL-ML	6.5		
15	fill bag	0	26	19	7	0.045	55	A-4 (1)	CL-ML	12.9		
15	jar									12.9		
15A	SPT	2	25	19	6	0.057	54	A-4 (1)	CL-ML	13.5		
16	fill bag	0	25	18	7	0.354	35	A-2-4 (0)	SC-SM	8.7		
16	jar									8.7		
16A	SPT	2	26	19	7	0.170	46	A-4 (1)	GC-GM	3.5		
16A	SPT									9.9		

Total Jars: 25
Total SPT: 29
Total ST: 0
Total Cut Bags: 1
Total Fill Bags: 14

Right-of-Way Certification Form

Revised 5/27/09

☒ **Federal Funded** ☒ **Original**

☐ **State Funded** ☐ **Re-Certification**

This form must be completed and submitted to FHWA with the PS&E package for federal-aid funded Interstate, Appalachia, and Mega projects. This form shall also be submitted to FHWA for **all** federal-aid projects that fall under conditions No. 2 & 3 outlined elsewhere in this form. For all other federal-aid projects, this form shall be completed and retained in the KYTC project file.

Date: **June 7, 2010**

Project #: _____ County: **ROCKCASTLE**

Item #: **08-8501.00** Federal #: _____

Description of Project: Erect Safety Cable Median Guardrails at Various Points from Southern Rockcastle Co. to the Tennessee State Line.

Letting Date: **July 30, 2010**

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

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

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

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

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

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

Right-of-Way Certification Form

Note: The KYTC shall re-submit a right-of-way re-certification form for this project prior to the start of construction **(Notice to Proceed)**, verifying that fair market value for all parcels has been paid or deposited with the court.

☐ **3.** The acquisition or right of occupancy and use of a **few** remaining parcels are not complete and/or some parcels still have occupants. However, all remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. The KYTC is hereby requesting authorization to advertise this project for bids and to proceed with physical construction even thought the necessary rights-of-way will not be fully acquired, and/or some occupants will not be relocated, and/or the fair marked value will not be paid or deposited with the court for some parcels at the start of construction. KYTC will fully meet all the requirements outlined in 23 CFR 309(c) (3) and 49 CFR 102(j) and will expedite completion of all acquisitions, relocations, and full payments after construction starts. A full explanation and reason for this request, including identification of each such parcel and dates on which acquisitions, payments, and relocations will be completed, is attached to this certification form for FHWA consideration and approval. **(See note.)**

Note: **The KYTC may request authorization on this basis only in unique and unusual circumstances.** Proceeding to construction of projects on this basis shall be the exception and never become the rule. In all FHWA-approved cases, the KYTC shall make extraordinary efforts to expedite completion of the acquisition, payment for all affected parcels, and the relocation of all relocatees promptly 30 days after start of construction.

Approved: Charles Hale Date 6/7/2010 District ROW Supervisor
Name

Approved: Keith McDonald Date 6/16/10 Director of ROW & Utilities or Designee
Name

Approved: [signature] Date 6/17/10 FHWA, Right-of-Way Officer
Name

Right-of-Way Certification Form

Date: **June 7, 2010**

Project #: _____ County: **ROCKCASTLE**
Item #: **08-8501.00** Federal #: _____
Letting Date: **July 30, 2010**

This project has **0** Total number of parcels acquired, and **0** Total number of individual or families relocated, as well as **0** Total number of businesses relocated.

_____ Parcels were acquired by a signed fee simple deed and fair market value has been paid **(Type 1)**
_____ Parcels have been acquired through condemnation and IOJ granted by the court and fair market value has been deposited with the court **(Type 1 certification)**
_____ Parcels have <u>not</u> been acquired at this time but can be Re-certified as acquired prior to Notice to Proceed for construction.(*explain below for each parcel*) **(Type 2 certification)**
_____ Parcels have been acquired or have a "right of Entry" but the fair market value has not been paid or has not been posted with the court, and they can not be re-certified prior to construction. (These parcels require an explanation below for each one as well as FHWA approval. **(Type 3 only)**
_____ Relocatees have not been relocated from parcels.
(explain below for each parcel)

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

There are **0** billboards and/or **0** cemeteries involved on this project.
There are **0** water or monitoring wells on parcels.

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

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

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

(Effective with the July 30, 2010 Letting)

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

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

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SUBSECTION: **REVISION:**	102.07.02 Computer Bidding. Replace the first paragraph with the following: Subsequent to registering for a specific project, use the Department's Expedite Bidding Program on the internet website of the Department of Highways, Division of Construction Procurement (http://transportation.ky.gov/contract/). Download the bid file from the Bid Express Bidding Service Website to prepare a Bid Proposal for submission to the Department. Submit Bid Proposal electronically through Bid Express Bidding Service. Delete the second and third paragraph.
SUBSECTION: **REVISION:**	102.08 Irregular Bid Proposals. Delete the following from the first paragraph: 4) fails to submit a disk created from the Highway Bid Program. Replace the second paragraph with the following: The Department will consider Bid Proposals irregular and may reject them for the following reasons: 1) when there are unauthorized additions, conditional or alternate bids, or irregularities of any kind which may tend to make the Bid Proposal incomplete, indefinite, or ambiguous as to its meaning; or 2) when the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a Contract pursuant to an award; or 3) any failure to comply with the provisions of Subsection 102.07; or 4) Bid Proposals in which the Department determines that the prices are unbalanced; or when the sum of the total amount of the Bid Proposal under consideration exceeds the bidder's Current Capacity Rating.
SUBSECTION: **REVISION:**	102.09 Bid Proposal Guaranty. Insert the following after the first sentence: Bid Proposals must have a bid proposal guaranty in the amount indicated in the bid proposal form accompany the submittal. A guaranty in the form of a paper bid bond, cashier's check, or certified check in an amount no less than the amount indicated on the submitted electronic bid is required when the electronic bid bond was not utilized with the Bid Express Bidding Service. Paper bid bonds must be delivered to the Division of Construction Procurement prior to the time of the letting.
SUBSECTION: **REVISION:**	102.10 Delivery of Bid Proposals. Replace paragraph with the following: Submit all Bid Proposals prior to the time specified in the Notice to Contractors. All bids shall be submitted electronically using Bid Express Bidding Services. Electronically submitted bids must be done in accordance with the requirements of the Bid Express Bidding Service.
SUBSECTION: **REVISION:**	102.11 Withdrawal or Revision of Bid Proposals. Replace the paragraph with the following: Bid Proposals can be withdrawn in accordance the requirements of the Bid Express Bidding Service prior to the time of the Letting.
SUBSECTION: **REVISION:**	102.13 Public Opening of Bid Proposals. Replace Heading with the following: 102.13 Public Announcement of Bid Proposals. Replace the paragraph with the following: The Department will publicly announce all Bid Proposals at the time indicated in the Notice to Contractors.

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SUBSECTION: **REVISION:**	103.02 Award of Contract. Replace the first sentence of the third paragraph with the following: The Department will normally award the Contract within 10 working days after the date of receiving Bid Proposals unless the Department deems it best to hold the Bid Proposals of any or all bidders for a period not to exceed 60 calendar days for final disposition of award.
SUBSECTION: **REVISION:**	105.03 Record Plans. Replace the section with the following: Record Plans are those reproductions of the original Plans on which the accepted Bid Proposal was based and, and signed by a duly authorized representative of the Department. The Department will make these plans available for inspection in the Central Office at least 24 hours prior to the time of opening bids and up to the time of letting of a project or projects. The quantities appearing on the Record Plans are the same as those on which Bid Proposals are received. The Department will use these Record Plans as the controlling plans in the prosecution of the Contract. The Department will not make any changes on Record Plans subsequent to their issue unless done so by an approved contract modification. The Department will make 2 sets of Record Plans for each project, and will maintain one on file in the Central Office and one of file in the District Office. The Department will furnish the Contractor with the following: 1 full size, 2 half size and an electronic file copy of the Record Plans at the Pre-Construction conference.
SUBSECTION: **REVISION:**	105.12 Final Inspection and Acceptance of Work. Insert the following paragraphs after the first paragraph: Notify the Engineer when all electrical items are complete. A notice of the electrical work completion shall be made in writing to the Contractor. Electrical items will be inspected when the electrical work is complete and are not subject to waiting until the project as a whole has been completed. The Engineer will notify the Division of Traffic Operations within 3 days that all electrical items are complete and ready for a final inspection. A final inspection will be completed within 90 days after the Engineer notifies the Division of Traffic Operations of the electrical work completion. Energize all electrical items prior to notifying the Engineer that all electrical items are complete. Electrical items must remain operational until the Division of Traffic Operations has inspected and accepted the electrical portion of the project. Payment for the electrical service is the responsibility of the Contractor from the time the electrical items are energized until the Division of Traffic Operations has accepted the work. Complete all corrective work within 90 calendar days of receiving the original electrical inspection report. Notify the Engineer when all corrective work is complete. The Engineer will notify the Division of Traffic Operations that the corrective work has been completed and the project is ready for a follow-up inspection. Upon re-inspection, if additional corrective work is required, complete within the same 90 calendar day allowance. The Department will not include time between completion of the corrective work and the follow up electrical inspection(s). The 90 calendar day allowance is cumulative regardless of the number of follow-up electrical inspections required. The Department will assume responsibility for the electrical service on a project once the Division of Traffic Operations gives final acceptance of the electrical items on the project. The Department will also assume routine maintenance of those items. Any damage done to accepted electrical work items by other Contractors shall be the responsibility of the Prime Contractor. The Department will not be responsible for repairing damage done by other contractors during the construction of the remaining project. Failure to complete the electrical corrective work within the 90 calendar day allowance will result in penalties assessed to the project. Penalties will be assessed at ½ the rate of liquidated damages established for the contract. Replace the following in the second sentence of the second paragraph: Replace Section 213 with Section 212. Delete the fifth paragraph from the section.

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

(Effective with the July 30, 2010 Letting)

SUBSECTION: **REVISION:**	105.13 Claim Resolution Process. Replace the last sentence of the 3. Bullet with the following: If the Contractor did not submit an as-bid schedule at the Pre-Construction Meeting or a written narrative in accordance with Subsection 108.02, the Cabinet will not consider the claim for delay. Delete the last paragraph from the section.
SUBSECTION: **REVISION:**	106.10 Field Welder Certification Requirements. Insert the following sentence before the first sentence of the first paragraph: All field welding must be performed by a certified welder unless otherwise noted.
SUBSECTION: **REVISION:**	108.02 Progress Schedule. Insert the following prior to the first paragraph: Specification 108.02 applies to all Cabinet projects except the following project types: • Right of Way Mowing and/or Litter Removal • Waterborne Paint Striping • Projects that contain Special Provision 82 • Projects that contain the Special Note for CPM Scheduling Insert the following paragraph after paragraph two: Working without the submittal of a Written Narrative is violation of this specification and additionally voids the Contractor's right to delay claims. Insert the following paragraph after paragraph six: The submittal of bar chart or Critical Path Method schedule does not relieve the Contractor's requirement to submit a Written Narrative schedule. Insert the following at the beginning of the first paragraph of A) Written Narrative.: Submit the Written Narrative Schedule using form TC 63-50 available at the Division of Construction's website (http://www.transportation.ky.gov/construction/ResCenter/ResCenter.htm). Replace Part A) Written Narrative 1. And 2. with the following: 1. Provide a description that includes how the Contractor will sequence and stage the work, how the Contractor plans to maintain and control traffic being specific and detailed, and what equipment and crew sizes are planned to execute the work. 2. Provide a list of project milestones including, if applicable, winter shut-downs, holidays, or special events. The Contractor shall describe how these milestones and other dates effect the prosecution of the work. Also, include start date and completion date milestones for the contract, each project if the contract entails multiple projects, each phase of work, site of work, or segment of work as divided in the project plans, proposal, or as subdivided by the Contractor.

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SUBSECTION: **REVISION:**	110.01 Mobilization. Replace paragraph three with the following: Do not bid an amount for Mobilization that exceeds 5 percent of the sum of the total amounts bid for all items in the Bid Proposal, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives. The Department will automatically adjust any Bid Proposals that are in excess of this amount down to 5 percent to compare Bid Proposals and award the Contract. The Department will award a Contract for the actual amount bid when the amount bid for Mobilization is less than 5 percent, or the Department will award the Contract for the adjusted bid amount of 5 percent when the amount bid for Mobilization is greater than 5 percent. If any errors in unit bid prices for other Contract items in a Contractor's Bid Proposal are discovered after bid opening and such errors reduce the total amount bid for all other items, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives, so that the percent bid for Mobilization is larger than 5 percent, the Department will adjust the amount bid for Mobilization to 5 percent of the sum of the corrected total bid amounts.
SUBSECTION: **REVISION:**	110.02 Demobilization. Replace the third paragraph with the following: Bid an amount for Demobilization that is a minimum of $1,000 or 1.5 percent of the sum of the total amounts bid for all other items in the Bid Proposal, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives. The Department will automatically adjust any Bid Proposal that is less than this amount up to $1,000 or 1.5 percent to compare Bid Proposals and award the Contract. The Department will award a Contract for the actual amount bid when the amount bid for demobilization exceeds 1.5 percent, or the Department will award the Contract for the adjusted bid amount when the amount bid for demobilization is less than the minimum of $1,000 or less than 1.5 percent of the sum of the total amounts bid for all other items in the Bid Proposal, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives.
SUBSECTION: **REVISION:**	110.04 Payment. Insert the following paragraph following the demobilization payment schedule (4th paragraph): The Department will withhold an amount equal to $1,000 for demobilization, regardless of the schedule listed above. The $1,000 withheld for demobilization will be paid when the final estimate is paid.
SUBSECTION: **REVISION:**	112.03.01 General Traffic Control. Replace paragraph three with the following: All flaggers shall be trained in current MUTCD flagging procedures. Proof of training must be available for review at the Department's request. Flagging credentials must be current within the last 5 years.
SUBSECTION: **PART:** **REVISION:**	112.03.11 Temporary Pavement Markings. B) Placement and Removal of Temporary Striping. Replace the 2nd sentence of the first paragraph with the following: On interstates and parkways, and other roadways approved by the State Highway Engineer, install pavement striping that is 6 inches in width.
SUBSECTION: **REVISION:**	112.03.12 Project Traffic Coordinator (PTC). Add the following at the end of the subsection: After October 1, 2008 the Department will require the PTC to have successfully completed the applicable qualification courses. Personnel that have not successfully completed the applicable courses by that date will not be considered qualified. Prior to October 1, 2008, conform to Subsection 108.06 A) and ensure the designated PTC has sufficient skill and experience to properly perform the task.

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SUBSECTION: 112.03.15 Non-Compliance of Maintain and Control of Traffic.
REVISION: Add the following section:

112.03.15 Non-Compliance of Maintain and Control of Traffic. It is the Contractor's responsibility to conform to the traffic control requirements in the TCP, Proposal, plan sheets, specifications, and the Manual on Uniform Traffic Control Devices.

Unless specified elsewhere in the contract, a penalty will be assessed in the event of non-compliance with Maintain and Control of Traffic requirements. These penalties will be assessed when the Contractor fails to correct a situation or condition of non-compliance with the contract traffic control requirements after being notified by the Engineer. The calculation of accrued penalties for non-compliance will be based upon the date/time of notification by the Engineer.

The amount of the penalty assessed for non-compliance will be determined based upon the work zone duration, as defined by the MUTCD, and will be the greatest of the different calculation methods indicated below:

A) Long-term stationary work that occupies a location more than 3 days.

Correct the non-compliant issue within 24 hours from initial notification by the Engineer. If the issue is not corrected within 24 hours from the initial notification, a penalty for non-compliance will be assessed on a daily basis beginning from the initial notification of non-compliance. The Contractor will be assessed a $1,000 daily penalty or the amount equal to the contract liquidated damages in Section 108.09, whichever of the 2 is greater. The penalty for non-compliance will escalate as follows for continued non-compliance after the initial notification.

3 Days after Notification
$1,500 daily penalty or 1.5 times the contract liquidated damages daily charge rate in Section 108.09, whichever is greater.

7 Days after Notification
$2,000 daily penalty or double the contract liquidated damages daily charge rate in Section 108.09, whichever is greater.

B) Intermediate-term stationary work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than 1 hour.

Correct the non-compliant issue within 4 hours from initial notification by the Engineer. If the issue is not corrected within 4 hours from notification, a penalty for non-compliance will be assessed on an hourly basis beginning from the initial notification of non-compliance. The penalty for non-compliance will be assessed at $200 per hour.

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

Correct the non-compliant issue within 1 hour from initial notification by the Engineer. If the issue is not corrected within 1 hour from notification, a penalty for non-compliance will be assessed on an hourly basis beginning from the initial notification of non-compliance. The penalty for non-compliance will be assessed at $200 per hour.

If the Contractor remains in violation of the Maintain and Control of Traffic requirements, or if the Department determines it to be in the public's interest, work will be suspended in accordance with Section 108.08 until the deficiencies are corrected. The Department reserves the right to correct deficiencies by any means available and charge the Contractor for labor, equipment, and material costs incurred in emergency situations.

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SUBSECTION: **REVISION:**	206.03.02 Embankment Replace the last paragraph with the following: When rock roadbed is specified, construct the upper 2 feet of the embankment according to Subsection 204.03.09 A).
SUBSECTION: **REVISION:**	213.03.03 Inspection and Maintenance. Insert the following paragraph after the second paragraph: When the Contractor is required to obtain the KPDES permit, it is their responsibility to ensure compliance with the inspection and maintenance requirements of the permit. The Engineer will perform verification inspections a minimum of once per month and within 7 days of a ½ inch or greater rainfall event. The Engineer will document these inspections using Form TC 63-61 A. The Engineer will provide copies of the inspection only when improvements to the BMP's are required. Verification inspections performed by the Engineer do not relieve the Contractor of any responsibility for compliance with the KPDES permit. Initiate corrective action within 24 hours of any noted deficiency and complete the work within 5 days.
SUBSECTION: **PART:** **REVISION:**	213.03.05 Temporary Control Measures. E) Temporary Seeding and Protection. Replace the first paragraph with the following: Apply an Annual Rye seed mix at a rate of 100 pounds per acre during the months of March through August. In addition to the Annual Rye, add 10 pounds of German Foxtail-Millet (Setaria italica), when performing temporary seeding during the months of June through August. During the months of September through February, apply Winter Wheat or Rye Grain at a rate of 100 pounds per acre. Obtain the Engineer's approval prior to the application of the seed mixture.
SUBSECTION: **PART:** **REVISION:**	213.03.05 Temporary Control Measures. F) Temporary Mulch. Replace the last sentence with the following: Place temporary mulch to an approximate 2-inch loose depth (2 tons per acre) and anchor it into the soil by mechanically crimping it into the soil surface or applying tackifier to provide a protective cover. Regardless of the anchoring method used, ensure the protective cover holds until disturbance is required or permanent controls are in installed.
SUBSECTION: **REVISION:**	303.05 Payment. Replace the second paragraph of the section with the following: The Department will make payment for Drainage Blanket-Type II (ATDB) according to the Lot Pay Adjustment Schedule for Specialty Mixtures in Section 402.
SUBSECTION: **PART:** **REVISION:**	401.02.04 Special Requirements for Dryer Drum Plants. F) Production Quality Control. Replace the first sentence with the following: Stop mixing operations immediately if, at any time, a failure of the automatic electronic weighing system of the aggregate feed, asphalt binder feed, or water injection system control occurs.

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(Effective with the July 30, 2010 Letting)

SUBSECTION: 401.02.04 Special Requirements for Dryer Drum Plants.
REVISION: Add the following:

Part G) **Water Injection System.** Provided each system has prior approval as specified in Subsection 402.01.01, the Department will allow the use of water injection systems for purposes of foaming the asphalt binder and lowering the mixture temperature for production of Warm Mix Asphalt (WMA).

Ensure the equipment for water injection meets the following requirements:

1) Injection equipment computer controls are automatically coupled to the plants controls (manual operation is not permitted);
2) Injection equipment has variable controls that introduce water ratios based on production rates of mixtures;
3) Injects water into the flow of asphalt binder prior to contacting the aggregate;
4) Provides alarms on the water injection system that operate when the flow of water is interrupted or deviates from the prescribed water rate.

SUBSECTION: 401.03.01 Preparation of Mixtures.
REVISION: Replace the last sentence of the second paragraph with the following:

Do not use asphalt binder while it is foaming in a storage tank.

SUBSECTION: 401.03.01 Preparation of Mixtures.
REVISION: Replace the third paragraph and Mixing and Laying Temperature table with the following:

Maintain the temperature of the component materials and asphalt mixture within the ranges listed in the following table:

MIXING AND LAYING TEMPERATURES (°F)

Material		Minimum	Maximum
Aggregates		240	330
Aggregates used with Recycled Asphalt Pavement (RAP)		240	—
Asphalt Binders	PG 64-22	230	330
	PG 76-22	285	350
Asphalt Mixtures at Plant (Measured in Truck)	PG 64-22 HMA	250	330
	PG 76-22 HMA	310	350
	PG 64-22 WMA	230	275
	PG 76-22 WMA	250	300
Asphalt Mixtures at Project (Measured in Truck When Discharging)	PG 64-22 HMA	230	330
	PG 76-22 HMA	300	350
	PG 64-22 WMA	210	275
	PG 76-22 WMA	240	300

SUBSECTION: 402.01 Description.
REVISION: Replace the paragraph with the following:

Provide the process control and acceptance testing of all classes and types of asphalt mixtures which may be furnished either as hot mix asphalt (HMA) or warm mix asphalt (WMA) produced with water injection systems.

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SUBSECTION **REVISION:**	402.01.01 Warm Mix Asphalt (WMA) Evaluation and Approval. Add the following subsection: 402.01.01 Warm Mix Asphalt (WMA) Evaluation and Approval. The Department will evaluate trial production of WMA by use of a water injection system provided the system is installed according to the manufacturer's requirements and satisfies the requirements of Section 401. Evaluation will include production and placement of WMA to demonstrate adequate mixture quality including volumetric properties and density by Option A as specified in Subsection 402.03.02 D). Do not place WMA for evaluation on Department projects. Provided production and placement operations satisfy the applicable quality levels, the Department will approve WMA production on Department projects using the water injection system as installed on the specific asphalt mixing plant evaluated.
SUBSECTION: **REVISION:**	402.05.02 Asphalt Mixtures and Mixtures With RAP. Replace Subsection Title as below: 402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP.
SUBSECTION: **REVISION:**	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Replace the paragraph with the following: The Department will pay for the mixture at the Contract unit bid price and apply a Lot Pay Adjustment for each lot placed based on the degree of compliance with the specified tolerances. Using the appropriate Lot Pay Adjustment Schedule, the Department will assign a pay value for the applicable properties within each sublot and average the sublot pay values to determine the pay value for a given property for each lot. The Department will apply the Lot Pay Adjustment for each lot to a defined unit price of $50.00 per ton. The Department will calculate the Lot Pay Adjustment using all possible incentives and disincentives but will not allow the overall pay value for a lot to exceed 1.00.
SUBSECTION: **PART:** **REVISION:**	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. C) Conventional and RAP Mixtures Placed on Shoulders. Replace title with the following: HMA, WMA, and RAP Mixtures Placed on Shoulders.
SUBSECTION: **PART:** **REVISION:**	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. D) Conventional and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge. Replace the title with the following: HMA, WMA, and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge.
SUBSECTION: **PART:** **TABLES:** **REVISION:**	402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Lot Pay Adjustment Schedule, Compaction Option A, Base and Binder Mixtures VMA Replace the VMA table with the following:

VMA

Pay Value	Deviation From Minimum
1.00	≥ min. VMA
0.95	0.1-0.5 below min.
0.90	0.6-1.0 below min.
(1)	> 1.0 below min.

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SUBSECTION: 402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP.
PART: Lot Pay Adjustment Schedule, Compaction Option A, Surface Mixtures
TABLES: VMA
REVISION: Replace the VMA table with the following:

VMA	
Pay Value	Deviation From Minimum
1.00	≥ min. VMA
0.95	0.1-0.5 below min.
0.90	0.6-1.0 below min.
(1)	> 1.0 below min.

SUBSECTION: 402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP.
PART: Lot Pay Adjustment Schedule, Compaction Option B Mixtures
TABLE: VMA
REVISION: Replace the VMA table with the following:

VMA	
Pay Value	Deviation From Minimum
1.00	≥min. VMA
0.95	0.1-0.5 below min.
0.90	0.6-1.0 below min.
(2)	> 1.0 below min.

SUBSECTION: 403.03.03 Preparation of Mixture.
PART: C) Mix Design Criteria.
NUMBER: 1) Preliminary Mix Design.
REVISION: Replace the last two sentences of the paragraph and table with the following:

Complete the volumetric mix design at the appropriate number of gyrations as given in the table below for the number of 20-year ESAL's. The Department will define the relationship between ESAL classes, as given in the bid items for Superpave mixtures, and 20-year ESAL ranges as follows:

		Number of Gyrations		
Class	**ESAL's (millions)**	$N_{initial}$	N_{design}	N_{max}
2	< 3.0	6	50	75
3	3.0 to < 30.0	7	75	115
4	≥ 30.0	8	100	160

SUBSECTION: 403.03.09 Leveling and Wedging, and Scratch Course.
PART: A) Leveling and Wedging.
REVISION: Replace the first sentence of the first paragraph with the following:

Conform to the gradation requirements (control points) of AASHTO M 323 for base, binder, or surface as the Engineer directs.

SUBSECTION: 403.03.09 Leveling and Wedging, and Scratch Course.
PART: B) Scratch Course.
REVISION: Replace the second sentence of the first paragraph with the following:

Conform to the gradation requirements (control points) of AASHTO M 323 for base, binder, or surface as the Engineer directs.

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SUBSECTION: **REVISION:**	407.01 DESCRIPTION. Replace the first sentence of the paragraph with the following: Construct a pavement wedge composed of a hot-mixed or warm-mixed asphalt mixture.
SUBSECTION: **REVISION:**	409.01 DESCRIPTION. Replace the first sentence of the paragraph with the following: Use reclaimed asphalt pavement (RAP) from Department projects or other approved sources in hot mix asphalt (HMA) or warm mix asphalt (WMA) provided mixture requirements are satisfied.
SUBSECTION: **REVISION:**	410.01 DESCRIPTION. Delete the second sentence of the paragraph.
SUBSECTION: **REVISION:**	410.03.01 Corrective Work. Replace the last sentence of the paragraph with the following: Provide a final surface comparable to the adjacent pavement that does not require corrective work in respect to texture, appearance, and skid resistance.
SUBSECTION: **PART:** **NUMBER:** **REVISION:**	410.03.02 Ride Quality. B) Requirements. 1) Category A. Replace the last sentence of the first paragraph with the following: At the Department's discretion, a pay deduction of $1200 per 0.1-lane-mile section may be applied in lieu of corrective work.
SUBSECTION: **PART:** **NUMBER:** **REVISION:**	410.03.02 Ride Quality. B) Requirements. 2) Category B. Replace the second and third sentence of the first paragraph with the following: When the IRI is greater than 90 for a 0.1-mile section, perform corrective work, or remove and replace the pavement to achieve the specified IRI. At the Department's discretion, a pay deduction of $750 per 0.1-lane-mile section may be applied in lieu of corrective work.
SUBSECTION: **REVISION:**	410.05 PAYMENT. Add the following sentence to the end of the first paragraph: The sum of the pay value adjustments for ride quality shall not exceed $0 for the project as a whole.
SUBSECTION: **REVISION:**	413.05.02 CL3 SMA BASE 1.00D PG76-22. Insert the following sentence between the first and second sentence of the first paragraph: The Department will calculate the Lot Pay Adjustment using all possible incentives and disincentives but will not allow the overall pay value for a lot to exceed 1.00.

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SUBSECTION: 413.05.02 CL3 SMA BASE 1.00D PG 76-22.
TABLE: JOINT DENSITY TABLE
REVISION: Replace the joint density table with the following:

LANE DENSITY	
Pay Value	Test Result (%)
1.05	95.0-96.5
1.00	93.0-94.9
0.95	92.0-92.9 or 96.6-97.0
0.90	91.0-91.9 or 97.1-97.5
(1)	< 91.0 or > 97.5

SUBSECTION: 413.05.03 CL3 SMA SURF 0.50A PG76-22 and CL3 SMA SURF 0.38A PG76-22.
REVISION: Insert the following sentence between the first and second sentence of the first paragraph:

The Department will calculate the Lot Pay Adjustment using all possible incentives and disincentives but will not allow the overall pay value for a lot to exceed 1.00.

SUBSECTION: 413.05.03 CL3 SMA SURF 0.50A PG76-22 and CL3 SMA SURF 0.38A PG76-22.
TABLE: JOINT DENSITY TABLE
REVISION: Replace the joint density table with the following:

DENSITY		
Pay Value	Lane Density Test Result (%)	Joint Density Test Result (%)
1.05	95.0-96.5	92.0-96.0
1.00	93.0-94.9	90.0-91.9
0.95	92.0-92.9 or 96.6-97.0	89.0-89.9 or 96.1-96.5
0.90	91.0-91.9 or 97.1-97.5	88.0-88.9 or 96.6-97.0
0.75	----	< 88.0 or > 97.0
(1)	< 91.0 or > 97.5	----

SUBSECTION: 501.05.02 Ride Quality.
REVISION: Add the following sentence to the end of the first paragraph:

The sum of the pay value adjustments for the ride quality shall not exceed $0 for the project as a whole.

SUBSECTION: 505.03.04 Detectable Warnings.
REVISION: Replace the first sentence with the following:

Install detectable warning pavers at all sidewalk ramps and on all commercial entrances according to the Standard Drawings.

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SUBSECTION: **REVISION:**	505.04.04 Detectable Warnings. Replace the paragraph with the following: The Department will measure the quantity in square feet. All retrofit applications for maintenance projects will require the removal of existing sidewalks to meet the requirements of the standard drawings applicable to the project. The cost associated with the removal of the existing sidewalk will be incidental to the detectable warnings bid item or incidental to the bid item for the construction of the concrete sidewalk unless otherwise noted.
SUBSECTION: **REVISION:**	505.05 PAYMENT. Add the following to the bid item table: Code — Pay Item — Pay Unit 23158ES505 — Detectable Warnings — Square Foot
SUBSECTION: **REVISION:**	509.01 DESCRIPTION. Replace the second paragraph with the following: The Department may allow the use of similar units that conform to the National Cooperative Highway Research Program (NCHRP) 350 Test Level 3 (TL-3) requirements and the typical features depicted by the Standard Drawings. Obtain the Engineers approval prior to use. Ensure the barrier wall shape, length, material, drain slot dimensions and locations typical features are met and the reported maximum deflection is 3 feet or less from the NCHRP 350 TL-3 for Test 3 – 11 (pickup truck impacting at 60 mph at a 25-degree angle.)
SUBSECTION: **REVISION:**	601.03.02 Concrete Producer Responsibilities. Add the following to the first paragraph: If a concrete plant becomes unqualified during a project and there are no other qualified plants in the region, the Department will provide qualified personnel to witness and ensure the producer follows the required specifications. The Department will assess the Contractor a $100 per hour charge for this service.
SUBSECTION: **REVISION:**	606.02.11 Coarse Aggregate. Replace with the following: Conform to Section 805, size No. 8 or 9-M.
SUBSECTION: **REVISION:**	609.04.06 Joint Sealing. Replace Subsection 601.04 with the following: Subsection 606.04.08.
SUBSECTION: **REVISION:**	609.05 Payment. Replace the Pay Unit for Joint Sealing with the following: See Subsection 606.05.
SUBSECTION: **REVISION:**	701.03.06 Initial Backfill. Replace the first sentence of the last paragraph with the following: When the Contract specifies, perform quality control testing to verify compaction according to KM 64-512.

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SUBSECTION: 701.03.08 Testing of Pipe.
REVISION: Replace and rename the subsection with the following:

701.03.08 Inspection of Pipe. The engineer will visually inspect all pipe. The Department will require camera/video inspection on a minimum of 50 percent of the linear feet of all installed pipe structures. Conduct camera/video inspection according to KM 64-114. The pipe to be installed under pavement will be selected first. If the total linear feet of pipe under pavement is less than 50 percent of the linear feet of all pipe installed, the Engineer will randomly select installations from the remaining pipe structures on the project to provide for the minimum inspection requirement. The pipe will be selected in complete runs (junction-junction or headwall-headwall) until the total linear feet of pipe to be inspected is at least 50 percent of the total linear feet of all installed pipe on the project.

Unless the Engineer directs otherwise, schedule the inspections no sooner than 30 days after completing the installation and completion of earthwork to within 1 foot of the finished subgrade. When final surfacing conflicts with the 30-day minimum, conduct the inspections prior to placement of the final surface. The contractor must ensure that all pipe are free and clear of any debris so that a complete inspection is possible.

Notify the Engineer immediately if distresses or locations of improper installation are discovered. When camera testing shows distresses or improper installation in the installed pipe, the Engineer may require additional sections to be tested. Provide the video and report to the Engineer when testing is complete in accordance with KM 64-114.

Pipes that exhibit distress or signs of improper installation may necessitate repair or removal as the Engineer directs. These signs include, but are not limited to: deflection, cracking, joint separation, sagging or other interior damage. If corrugated metal or thermoplastic pipes exceed the deflection and installation thresholds indicated in the table below, provide the Department with an evaluation of each location conducted by a Professional Engineer addressing the severity of the deflection, structural integrity, environmental conditions, design service life, and an evaluation of the factor of safety using Section 12, "Buried Structures and Tunnel Liners," of the AASHTO LRFD Bridge Design Specifications. Based on the evaluation, the Department may allow the pipe to remain in place at a reduced unit price as shown in the table below. Provide 5 business days for the Department to review the evaluation. When the pipe shows deflection of 10 percent or greater, remove and replace the pipe. When the camera/video or laser inspection results are called into question, the Department may require direct measurements or mandrel testing.

The Cabinet may elect to conduct Quality Assurance verifications of any pipe inspections.

SUBSECTION: 701.04.07 Testing.
REVISION: Replace and rename the subsection with the following:

701.04.07 Pipeline Video Inspection. The Department will measure the quantity in linear feet along the pipe invert of the structure inspected. When inspection above the specified 50 percent is performed due to a disagreement or suspicion of additional distresses and the Department is found in error, the Department will measure the quantity as Extra Work according to Subsection 104.03. However, if additional distresses or non-conformance is found, the Department will not measure the additional inspection for payment.

SUBSECTION: 701.05 PAYMENT.
REVISION: Add the following pay item to the list of pay items:

Code	Pay Item	Pay Unit
23131ER701	Pipeline Video Inspection	Linear Foot

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SUBSECTION: 701.05 PAYMENT
TABLE: PIPE DEFLECTION DETERMINED BY CAMERA TESTING
REVISION: Replace this table with the following table and note:

PIPE DEFLECTION	
Amount of Deflection (%)	Payment
0.0 to 5.0	100% of the Unit Bid Price
5.1 to 9.9	50% of the Unit Bid Price [(1)]
10 or greater	Remove and Replace

[(1)] *Provide Structural Analysis as indicated above. Based on the structural analysis, pipe may be allowed to remain in place at the reduced unit price.*

SUBSECTION: 701.05 PAYMENT
TABLE: PIPE DEFLECTION DETERMINED BY MANDREL TESTING
REVISION: Delete this table.

SUBSECTION: 713.02.01 Paint.
REVISION: Replace with the following:

Conform to Section 842 and Section 846.

SUBSECTION: 713.03 CONSTRUCTION.
REVISION: Replace the first sentence of the second paragraph with the following:

On interstates and parkways, and other routes approved by the State Highway Engineer, install pavement striping that is 6 inches in width.

SUBSECTION: 713.03.03 Paint Application.
REVISION: Replace the second paragraph with the following table:

Material	Paint Application Rate	Glass Beads Application Rate
4 inch waterborne paint	Min. of 16.5 gallons/mile	Min. of 6 pounds/gallon
6 inch waterborne paint	Min. of 24.8 gallons/mile	Min. of 6 pounds/gallon
6 inch durable waterborne paint	Min. of 36 gallons/mile	Min. of 6 pounds/gallon

SUBSECTION: 713.03.04 Marking Removal.
REVISION: Replace the last sentence of the paragraph with the following:

Vacuum all marking material and removal debris concurrently with the marking removal operation.

SUBSECTION: 713.05 PAYMENT.
REVISION: Insert the following codes and pay items below the Pavement Striping – Permanent Paint:

Code	Pay Item	Pay Unit
23159EN	Durable Waterborne Marking – 6 IN W	Linear Foot
23160EN	Durable Waterborne Marking – 6 IN Y	Linear Foot

SUBSECTION: 714.03 CONSTRUCTION.
REVISION: Insert the following paragraph at the end of the third paragraph:

Use Type I Tape for markings on bridge decks, JPC pavement and JPC intersections. Thermoplastic should only be used for markings on asphalt pavement.

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SUBSECTION: **REVISION:**	714.03.07 Marking Removal. Replace the third sentence of the paragraph with the following: Vacuum all marking material and removal debris concurrently with the marking removal operation.
SUBSECTION: **REVISION:**	716.01 DESCRIPTION. Insert the following after the first sentence: Energize lighting as soon as it is fully functional and ready for inspection. Ensure that lighting remains operational until the Division of Traffic Operations has provided written acceptance of the electrical work.
SUBSECTION: **REVISION:**	716.02.01 Roadway Lighting Materials. Replace the third sentence of the paragraph with the following: Submit for material approval an electronic file of descriptive literature, drawings, and any requested design data.
SECTION: **REVISION:**	717 – THERMOPLASTIC INTERSECTION MARKINGS. Replace the section name with the following: INTERSECTION MARKINGS.
SUBSECTION: **REVISION:**	717.01 DESCRIPTION: Replace the paragraph with the following: Furnish and install thermoplastic or Type I tape intersection markings (Stop Bars, Crosswalks, Turn Arrows, etc.) Thermoplastic markings may be installed by either a machine applied, screed extrusion process or by applying preformed thermoplastic intersection marking material.
SUBSECTION: **REVISION:**	717.02 MATERIALS AND EQUIPMENT. Insert the following subsection: 717.02.06 Type I Tape. Conform to Section 836.
SUBSECTION: **REVISION:**	717.03.03 Application. Insert the following part to the subsection: B) Type I Tape Intersection Markings. Apply according to the manufacturer's recommendations. Cut all tape at pavement joints when applied to concrete surfaces.
SUBSECTION: **PART:** **REVISION:**	717.03.05 Proving Period. A) Requirements. Insert the following to this section: 2) Type I Tape. During the proving period, ensure that the pavement marking material shows no signs of failure due to blistering, excessive cracking, bleeding, staining, discoloration, oil content of the pavement materials, drippings, chipping, spalling, poor adhesion to the pavement, loss of retroreflectivity, vehicular damage, and normal wear. Type I Tape is manufactured off site and warranted by the manufacturer to meet certain retroreflective requirements. As long as the material is adequately bonded to the surface and shows no signs of failure due to the other items listed in Subsection 714.03.06 A) 1), retroreflectivity readings will not be required. In the absence of readings, the Department will accept tape based on a nighttime visual observation.

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SUBSECTION: 717.03.06 Marking Removal.
REVISION: Replace the third sentence of the paragraph with the following:

Vacuum all marking material and removal debris concurrently with the marking removal operation.

SUBSECTION: 717.05 PAYMENT.
REVISION: Insert the following bid item codes:

Code	Pay Unit	Pay Item
06563	Pave Marking – R/R X Bucks 16 IN	Linear Foot
20782NS714	Pave Marking Thermo – Bike	Each
23251ES717, 23264ES717	Pave Mark TY I Tape X-Walk, Size	Linear Foot
23252ES717, 23265ES717	Pave Mark TY I Tape Stop Bar, Size	Linear Foot
23253ES717	Pave Mark TY I Tape Cross Hatch	Square Foot
23254ES717	Pave Mark TY I Tape Dotted Lane Extension	Linear Foot
23255ES717	Pave Mark TY I Tape Arrow, Type	Each
23268ES717-23270ES717		
23256ES717	Pave Mark TY I Tape- ONLY	Each
23257ES717	Pave Mark TY I Tape- SCHOOL	Each
23266ES717	Pave Mark TY 1 Tape R/R X Bucks-16 IN	Linear Foot
23267ES717	Pave Mark TY 1 Tape-Bike	Each

SUBSECTION: 805.01 GENERAL.
REVISION: Replace the second paragraph with the following:

The Department's List of Approved Materials includes the Aggregate Source List, the list of Class A and Class B Polish-Resistant Aggregate Sources, and the Concrete Restriction List.

SUBSECTION: 805.04 CONCRETE.
REVISION: Replace the "AASHTO T 160" reference in first sentence of the third paragraph with "KM 64-629"

SUBSECTION: 805.15 GRADATION ACCEPTANCE OF NON-SPECIFICATION COARSE AGGREGATE.
TABLE: AGGREGATE SIZE USE
PART: Cement Concrete Structures and Incidental Construction
REVISION: Replace "9-M for Waterproofing Overlays" with "8 or 9-M for Waterproofing Overlays"

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

SIZES OF COARSE AGGREGATES

	Sieve	AMOUNTS FINER THAN EACH LABORATORY SIEVE (SQUARE OPENINGS) PERCENTAGE BY WEIGHT															
Aggregate Size	Nominal [3] Maximum Aggregate Size	4 inch	3 1/2 inch	3 inch	2 1/2 inch	2 inch	1 1/2 inch	1 inch	3/4 inch	1/2 inch	3/8 inch	No. 4	No. 8	No. 16	No. 30	No. 100	No. 200
1	3 ½ inch	100	90-100		25-60		0-15		0-5								
2	2 ½ inch			100	90-100	35-70	0-15		0-5								
23	2 inch			100		40-90		0-15		0-5							
3	2 inch				100	90-100	35-70	0-15		0-5							
357	2 inch				100	95-100		35-70		10-30		0-5					
4	1 ½ inch					100	90-100	20-55	0-15		0-5						
467	1 ½ inch					100	95-100		35-70		10-30	0-5					
5	1 inch						100	90-100	20-55	0-10	0-5						
57	1 inch						100	95-100		25-60		0-10	0-5				
610	1 inch						100	85-100		40-75		15-40					
67	3/4 inch							100	90-100		20-55	0-10	0-5				
68	3/4 inch							100	90-100		30-65	5-25	0-10	0-5			
710	3/4 inch							100	80-100		30-75	0-30					
78	1/2 inch								100	90-100	40-75	5-25	0-10	0-5			
8	3/8 inch									100	85-100	10-30	0-10	0-5			
9-M	3/8 inch									100	75-100	0-25	0-5				
10[2]	No. 4										100	85-100				10-30	
11[2]	No. 4										100	40-90	10-40			0-5	
DENSE GRADED AGGREGATE [1]	3/4 inch							100	70-100		50-80	30-65			10-40		4-13
CRUSHED STONE BASE [1]	1 ½ inch				100		90-100		60-95		30-70	15-55			5-20		0-8

[1] *Gradation performed by wet sieve KM 64-620 or AASHTO T 11/T 27.*
[2] *Sizes shown for convenience and are not to be considered as coarse aggregates.*
[3] *Nominal Maximum Size is the largest sieve on the gradation table for an aggregate size on which any material may be retained.*

Note: The Department will allow blending of same source/same type aggregate when precise procedures are used such as cold feed, belt, or equivalent and combining of sizes or types of aggregate using the weigh hopper at concrete plants or controlled feed belts at the pugmill to obtain designated sizes.

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SUBSECTION: 805.16 SAMPLING AND TESTING.
REVISION: Replace the "AASHTO T 160" method with the "KM 64-629" method for the Concrete Beam Expansion Test.

Replace the "ASTM D 3042" method with the "KM 64-625" method for Insoluble Residue.

SUBSECTION: 810.04.01 Coating Requirements.
REVISION: Replace the "Subsection 806.07" references with "Subsection 806.06"

SUBSECTION: 810.06.01 Polyvinyl Chloride (PVC) Pipe.
PART: B) Culvert and Entrance Pipe.
REVISION: Replace the title with the following:

B) Culvert Pipe, Storm Sewer, and Entrance Pipe.

SUBSECTION: 837.03 APPROVAL.
REVISION: Replace the last sentence with the following:

The Department will sample and evaluate for approval each lot of thermoplastic material delivered for use per contract prior to installation of the thermoplastic material. Do not allow the installation of thermoplastic material until it has been approved by the Division of Materials. Allow the Department a minimum of 10 working days to evaluate and approve thermoplastic material.

SUBSECTION: 837.03.01 Composition.
REVISION: COMPOSITION Table:

Replace

Lead Chromate	0.0 max.	4.0 min.

with

Heavy Metals Content	Comply with 40 CFR 261

SECTION: DIVISION 800 MATERIAL DETAILS
REVISION: Add the following section in Division 800

SECTION 846 – DURABLE WATERBORNE PAINT

846.01 DESCRIPTION. This section covers quick-drying durable waterborne pavement striping paint for permanent applications. The paint shall be ready-mixed, one-component, 100% acrylic waterborne striping paint suitable for application on such traffic-bearing surfaces as Portland cement concrete, bituminous cement concrete, asphalt, tar, and previously painted areas of these surfaces.

846.02 Approval. Select materials that conform to the composition requirements below. Provide independent analysis data and certification for each formulation stating the total concentration of each heavy metal present, the test method used for each determination, and compliance to 40 CFR 261 for leachable heavy metals content. Submit initial samples for approval before beginning striping operations. The initial sample may be sent from the manufacture of the paint. The Department will randomly sample and evaluate the paint each week that the striping operations are in progress.

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

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PAINT COMPOSITION		
Property and Test Method	Yellow	White
Daytime Color (CIELAB) Spectrophotometer using illuminant D65 at 45º illumination and 0º viewing with a 2º observer	L* 81.76 a* 19.79 b* 89.89 Maximum allowable variation 2.0ΔE*	L* 93.51 a* -1.01 b* 0.70 Maximum allowable variation 2.0ΔE*
Nighttime Color (CIELAB) Spectrophotometer using illuminant A at 45º illumination and 0º viewing with a 2º observer	L* 86.90 a* 24.80 b* 95.45 Maximum allowable variation 2.0ΔE*	L* 93.45 a* -0.79 b* 0.43 Maximum allowable variation 2.0ΔE*
Heavy Metals Content	Comply with 40 CFR 261	Comply with 40 CFR 261
Titanium Dioxide ASTM D 4764	NA	10% by weight of pigment min.
VOC ASTM D 2369 and D 4017	1.25 lb/gal max.	1.25 lb/gal max.
Contrast Ratio (at 15 mils wft)	0.97	0.99

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

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

DURABLE WATERBORNE PAVEMENT STRIPING PAINT REDUCTION SCHEDULE						
Non-conforming Property	Resin	Color	Contrast	TiO_2	VOC	Heavy Metals Content
Reduction Rate	60%	10%	10%	10%	60%	60%

1I

SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

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

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

2.0 MATERIALS.

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

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

2.2 Sign and Controls. All signs must:

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

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11) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
12) Provide a photocell control to provide automatic dimming.
13) Allow an on-off flashing sequence at an adjustable rate.
14) Provide a sight to aim the message.
15) Provide a LED display color of approximately 590 nm amber.
16) Provide a controller that is password protected.
17) Provide a security device that prevents unauthorized individuals from accessing the controller.
18) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

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

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

2.3 Requirements for Flip-Disc Type Signs. Flip-disc type signs will have the following additional requirements:

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

2.4 Power.

1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.
2) Diesel Power Source. Ensure the following is provided for:

   a) At least 24 spare bulbs available on the project for quick replacement of burned out bulbs.
   b) Black light at both top and bottom of each line to illuminate discs for visibility at night or under adverse weather conditions, for flip disk signs.

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

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

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

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

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

4.0 MEASUREMENT. The final quantity of Variable Message Sign will be the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

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

Code	Pay Item	Pay Unit
02671	Portable Changeable Message Sign	Each

January 5, 2010

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

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ATTACHMENTS

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

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4, and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

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

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

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

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

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

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

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

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

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

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

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

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

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

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

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

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

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

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

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

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

6. **Training and Promotion:**

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

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

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

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

7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

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

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

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

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within thetime limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin,

age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

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

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

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

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

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

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

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

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

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

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

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

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

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

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

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

1. **General:**

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics

shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

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

2. **Classification:**

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

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

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

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

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

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

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

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

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

3. **Payment of Fringe Benefits:**

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

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

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

a. Apprentices:

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

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

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level ofprogress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable

classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

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

b. Trainees:

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

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

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

c. Helpers:

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

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

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

6. **Withholding:**

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

7. **Overtime Requirements:**

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

8. **Violation:**

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

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

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any

liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

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

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

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

2. **Payrolls and Payroll Records:**

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

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

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

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

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

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

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

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

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

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

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

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

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

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

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

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

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

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

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

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

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

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

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

* * * * *

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

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

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

* * * * *

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

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

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

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

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

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

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

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

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

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

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

* * * * *

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

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

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

* * * * *

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

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

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

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

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

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

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

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

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

KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972

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

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

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

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

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

REVISED: 12-3-92

EXECUTIVE BRANCH CODE OF ETHICS

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

> KRS 11A.040 (6) provides:
>
> No present or former public servant shall, within six (6) months of following termination of his office or employment, accept employment, compensation or other economic benefit from any person or business that contracts or does business with the state in matters in which he was directly involved during his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved in state government. This subsection shall not prohibit the performance of ministerial functions, including, but not limited to, filing tax returns, filing applications for permits or licenses, or filing incorporation papers.
>
> KRS 11A.040 (8) states:
>
> A former public servant shall not represent a person in a matter before a state agency in which the former public servant was directly involved, for a period of one (1) year after the latter of:
>
> a) The date of leaving office or termination of employment; or
> b) The date the term of office expires to which the public servant was elected.

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

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

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

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, Room 136, Capitol Building, 700 Capitol Avenue, Frankfort, Kentucky 40601; telephone (502) 564-7954.

General Decision Number: KY100026 03/12/2010 KY26

Superseded General Decision Number: KY20080026

State: Kentucky

Construction Types: Heavy and Highway

Counties: Adair, Barren, Bell, Breathitt, Casey, Clay, Clinton, Cumberland, Estill, Floyd, Garrard, Green, Harlan, Hart, Jackson, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, Lincoln, Magoffin, Martin, McCreary, Menifee, Metcalfe, Monroe, Morgan, Owsley, Perry, Pike, Powell, Pulaski, Rockcastle, Russell, Taylor, Wayne, Whitley and Wolfe Counties in Kentucky.

Heavy and Highway Construction Projects

Modification Number	Publication Date
0	03/12/2010

* SUKY2002-001 05/16/2006

	Rates	Fringes
Boilermaker	$ 24.65	12.94
Bricklayer	$ 20.35	7.80
Carpenter	$ 18.85	7.80
Cement Mason	$ 18.70	7.80
Electrician	$ 22.60	6.97

When workmen are required to work from bosum chairs, trusses, stacks, tanks, scaffolds, catwalks, radio and TV towers, structural steel (open, unprotected, unfloored raw steel), and bridges or similar hazardous locations where workmen are subject to a direct fall, except where using JLG's and bucket trucks up to 75 feet: Add 25% to workmen's base rate for 50 to 75 feet, and add 50% to workmen's base rate for over 75 feet

Ironworkers:		
Reinforcing	$ 18.75	7.80
Structural	$ 18.95	7.80
Laborers:		
GROUP 1	$ 16.90	7.80
GROUP 2	$ 17.15	7.80
GROUP 3	$ 17.25	7.80
GROUP 4	$ 17.30	7.80
GROUP 5	$ 17.40	7.80
GROUP 6	$ 17.45	7.80
GROUP 7	$ 17.50	7.80
GROUP 8	$ 17.65	7.80
GROUP 9	$ 17.85	7.80
GROUP 10	$ 18.40	7.80
GROUP 11	$ 18.50	7.80
GROUP 12	$ 19.70	7.80

Painters:		
All Excluding Bridges	$ 19.92	9.57
Bridges	$ 23.92	10.07
Piledriver	$ 18.50	7.80
Plumber	$ 22.52	7.80
Power Equipment Operator		
GROUP 1	$ 20.25	7.80
GROUP 2	$ 18.50	7.80
GROUP 3	$ 18.35	7.80
GROUP 4	$ 17.76	7.80
Sheet Metal Worker	$ 20.40	7.80
Stonemason	$ 18.95	7.80
Truck drivers:		
GROUP 1	$ 17.25	7.80
GROUP 2	$ 17.35	7.80
GROUP 3	$ 17.40	7.80
GROUP 4	$ 17.45	7.80
GROUP 5	$ 17.48	7.80
GROUP 6	$ 17.50	7.80
GROUP 7	$ 17.69	7.80
GROUP 8	$ 18.26	7.80
GROUP 9	$ 18.35	7.80

LABORER CLASSFICATIONS

GROUP 1 - General; Flagperson; & Steam Jenny

GROUP 2 - Batch Truck Dumper; & Deck Hand or Scow Man

GROUP 3 - Power Driven Tool Operator of the following: Wagon Drill, Chain Saw, Sand Blaster, Concrete Chipper, Pavement Breaker, Vibrator, Power Wheelbarrow & Power Buggy; Sewer Pipe Layer; Bottom Man; Dry Cement Handler; Concrete Rubber; & Mason Tender

GROUP 4 - Asphalt Lute & Rakerman; Side Rail Setter

GROUP 5 - Gunnite Nozzle Man

GROUP 6 - Tunnel Laborer (Free Air)

GROUP 7 - Tunnel Mucker (Free Air); Gunite operator

GROUP 8 - Hand Blade Operator

GROUP 9 - Tunnel Miner, Blaster & Driller (Free Air)

GROUP 10 - Caisson Worker

GROUP 11 - Powderman

GROUP 12 - Drill Operator of Percussion Type Drills which are both powered & propelled by an independent air supply

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1 - Auto Patrol; Batcher Plant; Bituminous Paver; Cableway; Clamshell; Concrete Mixer (21 cu. ft. or over); Concrete Pump; Crane; Crusher Plant; Derrick; Derrick Boat; Ditching & Trenching Machine; Dragline; Dredge Engineer; Elevator (When used to hoist building materials); Elevating Grader; Loader All Types; Hoe-Type Machine; Hoisting Engine; Locomotive; LeTourneau or Carry-all Scoop; Bulldozer; Mechanic; Orange peel Bucket; Piledriver; Power Blade; Roller (Bituminous); Roller (Earth); Roller (Rock); Scarifier; Shovel; Tractor Shovel; Truck Crane; Well Points; Winch Truck; Push Dozer; Grout Pump; High Lift; Fork Lift (Regardless of Lift Height); Boom Cat All Types; Multiple Operator; Core Drill; Tow or Push Boat; A-Frame Winch Truck; Concrete Paver; Gradeall; Hoist; Hyster; Material Pump; Pumpcrete; Ross Carrier; Sheep Foot; Sideboom; Throttle-Valve Man; Rotary Drill; Power Generator; Mucking Machine; Rock Spreader attached to equipment; Scoopmobile; KeCal Loader; Tower Crane (French, German & other types); Hydrocrane; Tugger; Backfiller Gurry; Self Propelled Compactor, Self Contained Hydraulic Percussion Drill

GROUP 2 - Air Compressor (200 cu. ft. per min. or greater capacity); Bituminous Mixer; Concrete Mixer (Under 21 cu. ft.); Welding Machine; Form Grader; Tractor (50 H.P. & Over); Bull Float; Finish Machine; Outboard Motor Boat; Brakeman; Whirley Oiler; Tractair & Road Widening Trencher; & Articulating Truck

GROUP 3 - Greaser on Grease Facilities Servicing Heavy Equipment

GROUP 4 - Bituminous Distributor; Cement Gun; Conveyor; Mud Jack; Paving Joint Machine; Pump; Tamping Machine; Tractor (Under 50 H.P.); Vibrator; Oiler; Air Compressor (Under 200 cu. ft. per min. capacity); Concrete Saw; Burlap & Curing Machine; Hydro Seeder; Power Form Handling Equipment; Deckhand Oiler; & Hydraulic Post Driver

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Winch; A-Frame when used in transporting materials

GROUP 2 - Tandem Axle; Dump; Distributor; Semi-Trailer or Pole Trailer

GROUP 3 - Mixer

GROUP 4 - Truck Mechanic

GROUP 5 - 3 Tons & Under; Tire Changer

GROUP 6 - Pavement Breaker

GROUP 7 - Over 3 Tons; Truck Mounted Rotary Drill

GROUP 8 - Euclid & Other Heavy Earth Moving Equipment; Lowboy

GROUP 9 - Greaser on Greasing Facilities

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

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

TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES

	BASIC HOURLY RATES	FRINGE BENEFIT PAYMENTS COMBINED
CRAFTS:		
Boilermakers	24.65	12.94
Bricklayers	22.90	8.50
Stone Mason	21.50	8.50
Carpenters	21.40	8.50
Cement Masons	21.25	8.50
Electricians	*29.26	10.53

*When workmen are required to work from bosum chairs, trusses, stacks, tanks, scaffolds, catwalks, radio and T.V. towers, structural steel (open, unprotected, unfloored raw steel), and bridges or similar hazardous locations where workmen are subject to a direct fall, except where using JLG's and bucket trucks up to 75 feet: Add 25% to workman's base rate for 50 to 75 feet, and add 50% to workman's base rate for over 75 feet.

Ironworkers: Structural	21.50	8.50
Ironworkers: Reinforcing	21.30	8.50
Painters:		
All Excluding Bridges	19.92	9.57
Bridges	23.92	10.07
Piledrivers	21.05	8.50
Plumbers	22.52	7.80
Sheet Metal	20.40	7.80

Welders- Receive rate for craft in which welding is incidental.

LABORERS:

General Laborer, Flagman, Steam Jenny.

BASE RATE 19.45
FRINGE BENEFITS 8.50

Batch Truck Dumper, Deck Hand or Scow Man, Hand Blade Operator.

BASE RATE 19.70
FRINGE BENEFITS 8.50

TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES

LABORERS: (continued)

Power Driven Tool Operator of the following: Wagon Drill, Chain Saw, Sand Blaster, Concrete Chipper, Pavement Breaker, Vibrator, Power Wheelbarrow, Power Buggy, Sewer Pipe Layer, Bottom Men, Dry Cement Handler, Concrete Rubber, Mason Tender.

BASE RATE 19.80
FRINGE BENEFITS 8.50

Asphalt Lute and Rakerman, Side Rail Setter.

BASE RATE 19.85
FRINGE BENEFITS 8.50

Gunnite Nozzle Man, Gunnite Operator.

BASE RATE 19.95
FRINGE BENEFITS 8.50

Tunnel Laborer (Free Air).

BASE RATE 20.00
FRINGE BENEFITS 8.50

Tunnel Mucker (Free Air).

BASE RATE 20.05
FRINGE BENEFITS 8.50

Tunnel Miner, Blaster and Driller (Free Air).

BASE RATE 20.40
FRINGE BENEFITS 8.50

Caisson Worker

BASE RATE 20.95
FRINGE BENEFITS 8.50

Powderman

BASE RATE 21.05
FRINGE BENEFITS 8.50

Drill Operator of Percussion type Drills which are both powered and propelled by an independent air supply.

BASE RATE 22.25
FRINGE BENEFITS 8.50

TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES

TRUCK DRIVERS AND RELATED CLASSIFICATIONS:

Truck helper and Warehouseman.	**BASE RATE**	19.70
	FRINGE BENEFITS	8.50
Driver, Winch Truck and A-Frame when used in transporting materials.	**BASE RATE**	19.80
	FRINGE BENEFITS	8.50
Driver (Semi-Trailer or Pole Trailer), Driver (Dump Truck, Tandem Axle), Driver of Distributor.	**BASE RATE**	19.90
	FRINGE BENEFITS	8.50
Driver on Mixer Trucks (All Types).	**BASE RATE**	19.95
	FRINGE BENEFITS	8.50
Truck Mechanic	**BASE RATE**	20.00
	FRINGE BENEFITS	8.50
Driver (3 tons and under), Tire Changer and Truck Mechanic Helper.	**BASE RATE**	20.03
	FRINGE BENEFITS	8.50
Driver on Pavement Breakers.	**BASE RATE**	20.05
	FRINGE BENEFITS	8.50
Driver (over 3 tons), Driver (Truck Mounted Rotary Drill).	**BASE RATE**	20.24
	FRINGE BENEFITS	8.50
Driver, Euclid and other Heavy Earth Moving Equipment and Low Boy.	**BASE RATE**	20.81
	FRINGE BENEFITS	8.50
Greaser on Greasing Facilities.		
	BASE RATE	20.90
	FRINGE BENEFITS	8.50

TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES

OPERATING ENGINEERS:

GROUP A:

Auto Patrol, Batcher Plant, Bituminous Paver, Cable-Way, Clamshell, Concrete Mixer (21 cu. ft. or over), Concrete Pump, Crane, Crusher Plant, Derrick, Derrick Boat, Ditching and Trenching Machine, Dragline, Dredge Engineer, Elevator (regardless of ownership when used for hoisting any building material), Elevating Grader and all types of Loaders, Hoe-Type Machine, Hoisting Engine, Locomotive, LeTourneau or Carry-All Scoop, Bulldozer, Mechanic, Orangepeel Bucket, Piledriver, Power Blade, Roller (Bituminous), Roller (Earth), Roller (Rock), Scarifier, Shovel, Tractor Shovel, Truck Crane, Well Points, Winch Truck, Push Dozer, Grout Pump, High Lift, Fork Lift (regardless of lift height), all types of Boom Cats, Multiple Operator, Core Drill, Tow or Push Boat, A-Frame Winch Truck, Concrete Paver, Gradeall, Hoist, Hyster, Material Pump, Pumpcrete, Ross Carrier, Sheep Foot, Sideboom, Throttle-Valve Man, Rotary Drill, Power Generator, Mucking Machine, Rock Spreader attached to equipment, Scoopmobile, KeCal Loader, Tower Cranes (French, German and other types), Hydrocrane, Tugger, Backfiller, Gurries, Self-Propelled Compactor, Self-Contained Hydraulic Percussion Drill.

BASE RATE 24.10
FRINGE BENEFITS 8.50

GROUP B:

All Air Compressors (200 cu. ft. per min. or greater capacity), Bituminous Mixer, Concrete Mixer (under 21 cu. ft.), Welding Machine, Form Grader, Tractor (50 H.P. and over), Bull Float, Finish Machine, Outboard Motor Boat, Brakeman, Mechanic Helper, Whirley Oiler, Tractair and Road Widening Trencher, Articulating Trucks.

BASE RATE 21.20
FRINGE BENEFITS 8.50

GROUP B2:

Greaser on grease facilities servicing heavy equipment.

BASE RATE 21.40
FRINGE BENEFITS 8.50

GROUP C:

Bituminous Distributor, Cement Gun, Conveyor, Mud Jack, Paving Joint Machine, Pump, Tamping Machine, Tractors (under 50 H.P.), Vibrator, Oiler, Air Compressors (under 200 cu. ft. per min. capacity), Concrete Saw, Burlap and Curing Machine, Hydro Seeder, Power Form Handling Equipment, Deckhand Oiler, Hydraulic Post Driver.

BASE RATE 20.79
FRINGE BENEFITS 8.50

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

These rates are listed pursuant to the Kentucky Determination No. CR-09-II HWY dated July 1, 2009 and/or Federal Decision No. KY 20100026 dated March 12, 2010.

NOTE: Both Kentucky Determination No. CR-09-II-HWY and Federal Decision No. KY20100026 dated March 12, 2010 apply to this project. Both sets of wage rates are included. If there is a difference in the two wages for the same classification, the Contractor is required to pay the higher of the two listed wages.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

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

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

TO: EMPLOYERS/EMPLOYEES
PREVAILING WAGE SCHEDULE:
The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.
OVERTIME:
Overtime is to be paid after an employee works eight (8) hours a day or forty (40) hours a week, whichever gives the employee the greater wages. At least time and one-half the base rate is required for all overtime. A laborer, workman or mechanic and an employer may enter into a written agreement or a collective bargaining agreement to work more than eight (8) hours a calendar day but not more than ten (10) hours a calendar day for the straight time hourly rate. Wage violations or questions should be directed to the designated Engineer or the undersigned.

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

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
4.5%	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 Laurel County.

PART IV

INSURANCE

INSURANCE

The Contractor shall carry the following insurance in addition to the insurance required by law:

1. Contractor's Public Liability Insurance not less than $100,000.00 for damages arising out of bodily injuries to or death to one person. Not less than $300,000.00 for damages arising out of bodily injuries to or death to two or more persons.

2. Contractor's Property Damages Liability Insurance. Not less than $100,000.00 for all damages arising out of injury or destruction of property in any one accident. Not less than $300,000.00 for all damages during the policy period.

3. Contractor's Protective Public Liability and Property Damage Insurance. The contractor shall furnish evidence with respect to operations performed for him by subcontractors that he carries in his own behalf for the above stipulated amounts.

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. 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.

PART V

BID ITEMS

CONTRACT ID: 101028
COUNTY: LAUREL
PROPOSAL: IM 0752(087)

PAGE: 1
LETTING: 07/30/10
CALL NO: 104

LINE NO	ITEM	DESCRIPTION	APPROXIMATE UNIT QUANTITY	UNIT PRICE	AMOUNT
	SECTION 0001	ROADWAY			
0010	00001	DGA BASE	1,791.000 TON		
0020	00100	ASPHALT SEAL AGGREGATE	623.000 TON		
0030	00291	EMULSIFIED ASPHALT RS-2	75.000 TON		
0040	02562	SIGNS	500.000 SQFT		
0050	02650	MAINTAIN & CONTROL TRAFFIC	(1.00) LS		
0060	02671	PORTABLE CHANGEABLE MESSAGE SIGN	2.000 EACH		
0070	02705	SILT TRAP TYPE C	56.000 EACH		
0080	02708	CLEAN SILT TRAP TYPE C	56.000 EACH		
0090	02726	STAKING	(1.00) LS		
0100	02775	ARROW PANEL	2.000 EACH		
0110	05950	EROSION CONTROL BLANKET	58,080.000 SQYD		
0120	06427	TRENCHING	43,560.000 LF		
0130	22415EN	CONCRETE CLASS A FOR PAD	19,360.000 SQYD		
0140	23147EN	HIGH TENSION CABLE-ROPE BARRIER	43,560.000 LF		
0150	23148EN	END ANCHORS	12.000 EACH		
	SECTION 0002	DEMOBILIZATION			
0160	02569	DEMOBILIZATION (AT LEAST 1.5%)	LUMP		
		TOTAL BID			