

CALL NO. 402
CONTRACT ID. 162163
KENTON COUNTY
FED/STATE PROJECT NUMBER 059GR16P087-FD05 & FE01
DESCRIPTION DIXIE HIGHWAY (US 25)
WORK TYPE ASPHALT RESURFACING
PRIMARY COMPLETION DATE 6/30/2017

LETTING DATE: August 26,2016

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME August 26,2016. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

DEFERRED PAYMENT

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

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SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 06

CONTRACT ID - 162163 059GR16P087-FD05 & FE01

COUNTY - KENTON

PCN - MP05900251601 FD05 059 0025 006-008

DIXIE HIGHWAY (US 25) (MP 6.326) FROM 95 FEET NORTH OF HALLAM AVENUE EXTENDING NORTH TO CARRAN DRIVE (MP 7.939), A DISTANCE OF 01.61 MILES.ASPHALT RESURFACING GEOGRAPHIC COORDINATES LATITUDE 39:01:25.00 LONGITUDE 84:35:03.00

PCN - MP05900251602 FE01 059 0025 006-008

DIXIE HIGHWAY (US 25) (MP 6.326) FROM 95 FEET NORTH OF HALLAM AVENUE EXTENDING NORTH TO CARRAN DRIVE (MP 7.939), A DISTANCE OF 01.61 MILES.ASPHALT RESURFACING GEOGRAPHIC COORDINATES LATITUDE 39:01:25.00 LONGITUDE 84:35:03.00

COMPLETION DATE(S):

COMPLETED BY 06/30/2017

APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

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

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

SPECIAL NOTE FOR COMPOSITE OFFSET BLOCKS

Contrary to the Standard Drawings (2016 edition) the Cabinet will allow 6" composite offset blocks in lieu of wooden offset blocks, except as specified on proprietary end treatments and crash cushions. The composite blocks shall be selected from the Cabinet's List of Approved Materials.

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

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

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

06/01/16

SPECIAL NOTE FOR RECIPROCAL PREFERENCE

Reciprocal preference to be given by public agencies to resident bidders

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

DEFERRED PAYMENT: The contractor shall have the distinct understanding that payment for any Work Performed Estimates may be delayed until December 31, 2016.

SURFACING AREAS

The Department estimates the mainline surfacing width to be varied 45-95 feet.

The Department estimates the total mainline area to be surfaced to be 68,239 square yards.

ASPHALT MIXTURE

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

INCIDENTAL SURFACING

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

FUEL AND ASPHALT PAY ADJUSTMENT

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

OPTION A

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

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SPECIAL NOTE FOR INLAID PAVEMENT MARKERS

I. DESCRIPTION

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

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

II. MATERIALS

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

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

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

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

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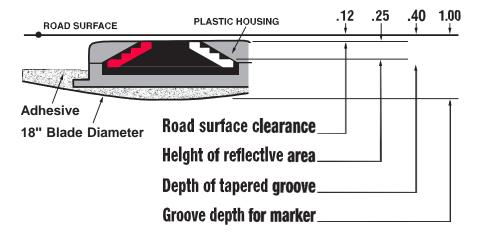
III. CONSTRUCTION

A. Experimental Evaluation. The University of Kentucky Transportation Center will be evaluating this installation of IPMs. Notify the Engineer a minimum of 14 calendar days prior to beginning work. The Engineer will coordinate the University's activities with the Contractor's work.

B. Maintain and Control Traffic. See Traffic Control Plan.

C. Installation. Install IPMs in recessed grooves cut into the final course of asphalt pavement according to the manufacturer's recommendations. Do not cut the grooves until the pavement has cured sufficiently to prevent tearing or raveling. Cut installation grooves using diamond blades on saws that accurately control groove dimensions. Remove all dirt, grease, oil, loose or unsound layers, and any other material from the marker area which would reduce the bond of the adhesive. Maintain pavement surfaces in a clean condition until placing markers.

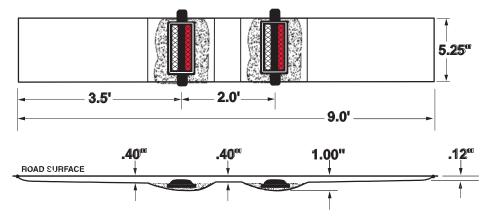
Prepare the pavement surfaces, and install the markers in the recessed groove according to the drawing below. Use an approved snowplowable epoxy adhesive. Ensure that the adhesive bed area is equal to the bottom area of the marker, and apply adhesive in sufficient quantity to force excess out around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



D. Location and Spacing. Install the markers in the pattern for high reflectivity with two (2) IPMs per groove. Locate and space markers as shown in the current standard drawings or sepias (note: use Inlaid Pavement Markers wherever Type V Pavement

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Markers are called for). Do not install markers on bridge decks. Do not install a marker on top of a pavement joint or crack. Offset the recessed groove a minimum of 2 inches from any longitudinal pavement joint or crack and at least one inch from the painted stripe, ensuring that the finished line of markers is straight with minimal lateral deviation. Give preference to maintaining the 2-inch offset between recessed groove and joint as opposed to keeping the line of markers straight.



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

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

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

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H. Caution. Do not take information shown on the drawings and in this proposal and the types and quantities of work listed as an accurate or complete evaluation of the material and conditions to be encountered during construction, but consider the types and quantities of work listed as approximate only. The bidder must draw his own conclusion as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation or extension of Contract time if the conditions encountered are not in accordance with the information shown.

IV. MEASUREMENT

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

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

V. PAYMENT

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

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SPECIAL PROVISION FOR WASTE AND BORROW SITES

Obtain U.S. Army Corps of Engineer's approval before utilizing a waste or borrow site that involves "Waters of the United States". The Corps of Engineers defines "Waters of the United States" as perennial or intermittent streams, ponds or wetlands. The Corps of Engineers also considers ephemeral streams, typically dry except during rainfall but having a defined drainage channel, to be jurisdictional waters. Direct questions concerning any potential impacts to "Waters of the United States" to the attention of the appropriate District Office for the Corps of Engineers for a determination prior to disturbance. Be responsible for any fees associated with obtaining approval for waste and borrow sites from the U.S. Army Corps of Engineer or other appropriate regulatory agencies.

1-296 Waste & Borrow Sites 01/02/2012

SPECIAL NOTE FOR MANHOLE/VALVE BOX ADJUSTMENTS

Appropriate utility companies shall be notified for manhole and valve box adjustments. Notify KYTC Engineer Anthony Griggs at the Kenton County Field Office at 859-356-5300 a minimum of 45 calendar days prior to beginning any work on the project. Unless directed otherwise by the Engineer, do not begin resurfacing until the manhole/valve box adjustments are completed by utility owners. The Engineer will coordinate the work between the Contractor and utility owners.

1-3181 Manhole Adjustments 01/01/2009

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SPECIAL NOTE FOR ASPHALT MILLING AND TEXTURING

Begin paving operations within <u>48 hours</u> of commencement of the milling operation. Continue paving operations continuously until completed. If paving operations are not begun within this time period, the Department will assess liquidated damages at the rate prescribed by Section 108.09 until such time as paving operations are begun.

Take possession of the millings and recycle the millings or dispose of the millings off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department.

1-3520 48 hours Contractor keeps millings 01/2/2012

SPECIAL NOTE FOR BASE FAILURE REPAIR

Repair locations listed on the summary are approximate only. The Engineer will determine actual repair locations and dimensions at the time of construction. Prior to overall milling and/or leveling and wedging, excavate the designated base failure areas to a depth 12 inches below the existing asphalt pavement surface level. Dispose of the excavated materials at waste sites off the Right-of-Way obtained by the Contractor at no additional cost to the Department. See Special Note for Waste and Borrow.

Backfill the excavated areas with Class 2 Asphalt Base 1.00D PG64-22. Compact the asphalt base to the compaction required in Section 403.03.10. Seal the asphalt base with leveling and wedging. Perform all base failure repairs in such a manner that removal and replacement are completed on the same day. Do this work as one of the Contractor's first operations in order to allow further compaction by traffic. Do not mill or place new asphalt surface over repaired base failure areas until a minimum of 7 calendar days have elapsed after placement of the asphalt base. After a minimum of 7 calendar days and when the Engineer determines the base failure repair areas have sufficiently stabilized, begin milling and/or resurfacing operations. Prior to milling and/or constructing the new asphalt surface, level and wedge any settlement of the repair areas.

The bidder must draw conclusions as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and will not consider any claim for additional compensation if the materials encountered that are not in accord with the classification shown.

Accept payment at the Contract unit prices per square yard for Base Failure repair and per ton for Leveling and Wedging as full compensation for all labor, materials, equipment, and incidentals for removing payment and disposing of the materials, furnishing and placing asphalt base, leveling and wedging, and all other items necessary to complete the work according to these notes to the satisfaction of the Engineer.

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SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

Consider the dimensions shown on the typical sections for pavement and shoulder widths and thickness' to be nominal or typical dimensions. The Engineer may direct or approve varying the actual dimensions to be constructed to fit existing conditions. Do not widen existing pavement or shoulders unless specified elsewhere in this proposal or directed by the engineer.

1-3725 Typical Section Dimensions 01/02/2012

SPECIAL NOTE FOR SIDEWALK RAMPS & DETECTABLE WARNINGS

GENERAL

Unless otherwise stated in the contract, or as directed by or with prior approval from the Engineer, construct Sidewalk Ramps and Detectable Warnings in accordance with Sections 505 and 720; Supplemental Specifications; Standard Drawings RGX-040-03, RPM-150-08, RPM-152-08, RPM-170-09, and RPM-172-07; current editions, as applicable. In lieu of the Detectable Warnings shown on Standard Drawing RGX-040-03, the Department will also allow the use of any Detectable Kentucky Product Evaluation Warnings listed Phase XI on the (http://www.ktc.uky.edu/kytc/kypel/allevaluations.php). For Detectable Warnings as shown on Standard Drawing RGX-040-03, saw cut existing sidewalks, curb and gutter, and pavement, if present, as shown on the detail and reconstruct sidewalk ramps with detectable warnings as directed or approved by the Engineer. For Detectable Warnings from the Kentucky Product Evaluation List, install according to the manufacturer's recommendations. Unless specified otherwise in the Contract, construct sidewalk with 4" nominal minimum required thickness; however, if the existing sidewalk thickness is found to be greater or less than the thickness specified, transition the thickness as directed by the Engineer.

Except as required by the work, do not disturb drainage pipe, catch basins, and other roadway features, appurtenances and installations. Restore any roadway features, appurtenances, and installations damaged by the work in like kind materials and design at no additional cost to the Department. Dispose of all waste off the right of way at sites obtained by the Contractor at no additional cost to the Department (see Special Note for Waste and Borrow).

MEASUREMENT & PAYMENT

SIDEWALK RAMPS – The Department will measure Sidewalk Ramps in accordance with Section 505.04.01 and Standard Drawing RPM-170-09, current editions; however, contrary to Sections 505.04.05 and 505.04.06, the Department will not measure Roadway Excavation or Embankment in Place, but shall be incidental to the Sidewalk. Accept payment at the Contract unit price per square yard as full compensation for all labor, materials, equipment, and incidentals required for removal and disposal of existing sidewalk and curb and gutter, excavation and embankment, construction of the sidewalk ramps, reconstruction of the adjacent curb and/or sidewalk as necessary to install the sidewalk ramps, and restoration of disturbed features in accordance with these notes or as directed by the Engineer.

DETECTABLE WARNINGS – The Department will measure Detectable Warnings in accordance with Section 505.04.04 and Standard Drawings RGX-040-03 and RPM-170-09, current editions. The Department will make payment according to Section 505.05.

HANDRAIL – The Department will measure and make payment for Handrail in accordance with Section 720.05 and Standard Drawing RPM-172-07, current editions.

TRAFFIC CONTROL PLAN

TRAFFIC CONTROL GENERAL

Except as provided herein, maintain and control traffic in accordance with the Standard and Supplemental Specifications and the Standard and Sepia 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, furnish new, or used in like new condition, traffic control devices at the beginning of the work and maintain in like new condition until completion of the work.

PROJECT PHASING & CONSTRUCTION PROCEDURES

Do not erect lane closures on the following days:

September 5, 2016 Labor Day May 29, 2017 Memorial Day

Maintain all lanes open to traffic and perform no work during the following hours:

6:00 a.m. – 8:00 p.m. Sunday through Saturday

The Engineer may permit minor operations that do not require a lane closure and cause little disruption to traffic between the hours of 9:00 a.m. to 3:00 p.m.

The Engineer may specify additional days and hours when lane closures will not be allowed.

At locations with three or more lanes, maintain one lane of traffic in each direction at all times during construction. At locations with two lanes, maintain alternating one way traffic during construction. Provide a minimum clear lane width of 10 feet; however, provide for passage of vehicles of up to 16 feet in width. If traffic should be stopped due to construction operations, and a school bus on an official run arrives on the scene, make provisions for the passage of the bus as quickly as possible.

The Department will allow night work on this project. Obtain the Engineer's approval of the method of lighting prior to performing night work.

Take these restrictions into account in submitting bid. The Department will not consider any claims for money or grant contract time extensions for any delays to the Contractor as a result of these restrictions.

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LANE CLOSURES

Do not leave lane closures in place during non-working hours.

SIGNS

Sign posts and splices shall be compliant with NCHRP 350 or MASH. Manufacturer's documentation validating this compliance shall be provided to the Engineer prior to installation. Signs, including any splices, shall be installed according to manufacturer's specifications and installation recommendations. Contrary to section 112.04.02, only long-term signs (signs intended to be continuously in place for more than 3 days) will be measured for payment. Short-term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic.

CHANGEABLE MESSAGE SIGNS

Provide changeable message signs in advance of and within the project at locations determined by the Engineer. If work is in progress concurrently in both directions or if more than one lane closure is in place in the same direction of travel, provide additional changeable message signs as directed by the Engineer. Place changeable message signs one mile in advance of the anticipated queue at each lane closure. As the actual queue lengthens and/or shortens, relocate or provide additional changeable message signs so that traffic has warning of slowed or stopped traffic at least one mile but not more than two miles before reaching the end of the actual queue. The Engineer may vary the designated locations as the work progresses. The Engineer will determine the messages to be displayed. In the event of damage or mechanical/electrical failure, repair or replace the Changeable Message Sign within 24 hours. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Changeable Message Signs only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged Changeable Message Signs or for signs the Engineer directs be replaced due to poor condition or readability. Retain possession of the Changeable Message Signs upon completion of the work.

ARROW PANELS

Use arrow panels as shown on the Standard Drawings or as directed by the Engineer. The Department will measure for payment the maximum number of arrow panels in concurrent use at the same time on a single day on all sections of the contract. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Arrow Panels only once for payment, regardless of how many times they are set, reset, removed, and

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relocated during the duration of the project. The Department will not measure replacements for damaged Arrow Panels or for panels signs the Engineer directs be replaced due to poor condition or readability for payment. Retain possession of the Arrow Panels upon completion of the work.

TEMPORARY ENTRANCES

The Engineer will not require the Contractor to provide continuous access to farms, single family, duplex, or triplex residential properties during working hours; however, provide reasonable egress and ingress to each such property when actual operations are not in progress at that location. Limit the time during which a farm or residential entrance is blocked to the minimum length of time required for actual operations, not extended for the Contractor's convenience, and in no case exceeding six (6) hours. Notify all residents twenty-four hours in advance of any driveway or entrance closings and make any accommodations necessary to meet the access needs of disabled residents.

Except as allowed by the Phasing as specified above, maintain direct access to all side streets and roads, schools, churches, commercial properties and apartments or apartment complexes of four or more units at all times.

The Department will measure asphalt materials required to construct and maintain any temporary entrances which may be necessary to provide temporary access; however, the Department will not measure aggregates, excavation, and/or embankment, but shall be incidental to Maintain and Control Traffic. The Engineer will determine the type of surfacing material, asphalt or aggregate, to be used at each entrance.

TRAFFIC SIGNAL LOOPS

Install traffic signal loops according to the Special Notes for Traffic Signal Loop Replacement. Coordinate the placement of the loops with the Engineer.

THERMOPLASTIC INTERSECTION MARKINGS

Consider the locations listed on the summary as approximate only. Prior to milling and/or resurfacing, locate and document the locations of the existing markings. After resurfacing, replace the markings at their approximate existing locations or as directed by Engineer. Place markings not existing prior to resurfacing as directed by the Engineer.

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BARRICADES

The Department will not measure barricades used in lieu of barrels and cones for channelization or delineation, but shall be incidental to Maintain and Control Traffic according to Section 112.04.01.

The Department will measure barricades used to protect pavement removal areas in individual units Each. The Department will measure for payment the maximum number of barricades in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual barricades only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged barricades the Engineer directs to be replaced due to poor condition or reflectivity. Retain possession of the Barricades upon completion of the work.

PAVEMENT MARKINGS

If there is to be a deviation from the existing striping plan, the Engineer will furnish the Contractor a striping plan prior to placement of the final surface course. Install Temporary Striping according to Section 112 with the following exceptions:

- 1. Place Temporary or Permanent Striping before opening a lane to traffic; and
- 2. If the Contractor's operations or phasing requires temporary markings that must subsequently be removed from the final surface course, use an approved removable lane tape; however, the Department will not measure removable lane tape for separate payment, but will measure and pay for removable lane tape as temporary striping.

PAVEMENT EDGE DROP-OFFS

Do not allow a pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation with an elevation difference greater than 1½". Place Warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500' intervals throughout the drop-off area. Dual post the signs on both sides of the traveled way. Wedge all transverse transitions between resurfaced and unresurfaced areas which traffic may cross with asphalt mixture for leveling and wedging. Remove the wedges prior to placement of the final surface course.

Protect pavement edges that traffic is not expected to cross, except accidentally, as follows:

Less than 2" - No protection required.

2" to 4" - Place plastic drums, vertical panels, or barricades every 50 feet. During daylight working hours only, the Engineer will allow the Contractor to use cones in lieu of plastic drums, panels, and barricades. Wedge the drop-off with DGA or asphalt mixture for leveling and wedging with a 1:1 or flatter slope in daylight

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hours, or 3:1 or flatter slope during nighttime hours, when work is not active in the drop-off area.

Greater than 4" - Protect drop-offs greater than 4 inches within 10 feet of traffic by placing drums, vertical panels, or barricades every 25 feet. The Engineer will not allow the use of cones in lieu of drums, vertical panels, or barricades for drop-offs greater than 4". Place Type III Barricades directly in front of the drop-off facing on coming traffic in both directions of travel. Provide warning signs as shown on the Standard Drawings or as directed by the Engineer

Pedestrians & Bicycles - Protect pedestrian and bicycle traffic as directed by the engineer.

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USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS

The following policy is based upon current Changeable Message Signs (CMS) standards and practice from many sources, including the Federal Highway Administration (FHWA), other State Departments of Transportation, and Traffic Safety Associations. It is understood that each CMS installation or use requires individual consideration due to the specific location or purpose. However, there will be elements that are constant in nearly all applications. Accordingly these recommended guidelines bring a level of uniformity, while still being open to regional experience and engineering judgment.

Application

The primary purpose of CMS is to advise the driver of unexpected traffic and routing situations. Examples of applications where CMS can be effective include:

- Closures (road, lane, bridge, ramp, shoulder, interstate)
- Changes in alignment or surface conditions
- Significant delays, congestion
- Construction/maintenance activities (delays, future activities)
- Detours/alternative routes
- Special events with traffic and safety implications
- Crash/incidents
- Vehicle restrictions (width, height, weight, flammable)
- Advance notice of new traffic control devices
- Real-time traffic conditions (must be kept up to date)
- Weather /driving conditions, environmental conditions, Roadway Weather Information Systems
- Emergency Situations
- Referral to Highway Advisory Radio (if available)
- Messages as approved by the County Engineer's Office

CMS should not be used for:

- Replacement of static signs (e.g. road work ahead), regulatory signage (e.g. speed limits), pavement markings, standard traffic control devices, conventional warning or guide signs.
- Replacement of lighted arrow board
- Advertising (Don't advertise the event unless clarifying "action" to be taken by driver e.g. Speedway traffic next exit)
- Generic messages
- Test messages (portable signs only)
- Describe recurrent congestion (e.g. rush hour)
- Public service announcements (not traffic related

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Messages

Basic principles that are important to providing proper messages and insuring the proper operation of a CMS are:

- Visible for at least ½ mile under ideal daytime and nighttime conditions
- Legible from all lanes a minimum of 650 feet
- Entire message readable twice while traveling at the posted speed
- Nor more than two message panels should be used (three panels may be used on roadways where vehicles are traveling less than 45 mph). A panel is the message that fits on the face of the sign without flipping or scrolling.
- Each panel should convey a single thought; short and concise
- Do not use two unrelated panels on a sign
- Do not use the sign for two unrelated messages
- Should not scroll text horizontally or vertically
- Should not contain both the words left and right
- Use standardized abbreviations and messages
- Should be accurate and timely
- Avoid filler/unnecessary words and periods (hazardous, a, an, the)
- Avoid use of speed limits
- Use words (not numbers) for dates

Placement

Placement of the CMS is important to insure that the signs is visible to the driver and provides ample time to take any necessary action. Some of the following principles may only be applicable to controlled access roadways. The basic principles of placement for a CMS are:

- When 2 signs are needed, place on same side of roadway and at least 1,000 feet apart
- Place behind semi-rigid/rigid protection (guardrail, barrier) or outside of the clear zone
- Place 1,000 feet in advance of work zone; at least one mile ahead of decision point
- Normally place on right side of roadway; but should be placed closest to the affected lane so that either side is acceptable
- Signs should not be dual mounted (one on each side of roadway facing same direction)
- Point trailer hitch downstream
- Secure to immovable object to prevent thief (if necessary)
- Do not place in sags or just beyond crest
- Check for reflection of sun to prevent the blinding of motorist
- Should be turned ~3 degrees outward from perpendicular to the edge of pavement
- Bottom of sign should be 7 feet above the elevation of edge of roadway
- Should be removed when not in use

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Standard Abbreviations

The following is a list of standard abbreviations to be used on CMS.

| Word | Abbrev. | Example | |
|---------------------|------------|----------------------------------|--|
| Access | ACCS | ACCIDENT AHEAD/USE ACCS RD | |
| | | NEXT RIGHT | |
| Alternate | ALT | ACCIDENT AHEAD/USE ALT RTE | |
| | | NEXT RIGHT | |
| Avenue | AVE | FIFTH AVE CLOSED/DETOUR | |
| | | NEXT LEFT | |
| Blocked | BLKD | FIFTH AVE BLKD/MERGE LEFT | |
| Boulevard | BLVD | MAIN BLVD CLOSED/USE ALT RTE | |
| Bridge | BRDG | SMITH BRDG CLOSED/USE ALT RTE | |
| Cardinal Directions | N, S, E, W | N I75 CLOSED/ DETOUR EXIT 30 | |
| Center | CNTR | CNTR LANE CLOSED/MERGE LEFT | |
| Commercial | COMM | OVRSZ COMM VEH/USE I275 | |
| Condition | COND | ICY COND POSSIBLE | |
| Congested | CONG | HVY CONG NEXT 3 MI | |
| Construction | CONST | CONST WORK AHEAD/EXPECT | |
| | | DELAYS | |
| Downtown | DWNTN | DWNTN TRAF USE EX 40 | |
| Eastbound | E-BND | E-BND I64 CLOSED/DETOUR | |
| | | EXIT 20 | |
| Emergency | EMER | EMER VEH AHEAD/PREPARE TO | |
| | | STOP | |
| Entrance, Enter | EX, EXT | DWNTN TRAF USE EX 40 | |
| Expressway | EXPWY | WTRSN EXPWY CLOSED/DETOUR | |
| | | EXIT 10 | |
| Freeway | FRWY, FWY | GN SYNDR FWY CLOSED/DETOUR | |
| | | EXIT 15 | |
| Hazardous Materials | HAZMAT | HAZMAT IN ROADWAY/ALL TRAF | |
| | | EXIT 25 | |
| Highway | HWY | ACCIDENT ON AA HWY/EXPECT | |
| | | DELAYS | |
| Hour | HR | ACCIDENT ON AA HWY/2 HR | |
| | | DELAY | |
| Information | INFO | TRAF INFO TUNE TO 1240 AM | |
| Interstate | I | E-BND I64 CLOSED/DETOUR | |
| | | EXIT 20 | |
| Lane | LN | LN CLOSED/MERGE LEFT | |
| Left | LFT | LANE CLOSED/MERGE LFT | |
| Local | LOC | LOC TRAF USE ALT RTE | |
| Maintenance | MAINT | MAINT WRK ON BRDG/SLOW | |
| Major | MAJ | MAJ DELWAYS 175/USE ALT RTE | |
| | | | |

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| Mile | MI | ACCIDENT 3 MI AHEAD/ USE | |
|------------|---------|-------------------------------|--|
| | | ALT RTE | |
| Minor | MNR | ACCIDENT 3 MI MNR DELAY | |
| Minutes | MIN | ACCIDENT 3 MI/30 MIN DELAY | |
| Northbound | N-BND | N-BND I75 CLOSED/ DETOUR | |
| | | EXIT 50 | |
| Oversized | OVRSZ | OVRSZ COMM VEH/USE I275 | |
| | | NEXT RIGHT | |
| Parking | PKING | EVENT PKING NEXT RGT | |
| Parkway | PKWY | CUM PKWAY TRAF/DETOUR | |
| 3 | | EXIT 60 | |
| Prepare | PREP | ACCIDENT 3 MIL/PREP TO STOP | |
| Right | RGT | EVENT PKING NEXT RGT | |
| Road | RD | HAZMAT IN RD/ALL TRAF EXIT 25 | |
| Roadwork | RDWK | RDWK NEXT 4 MI/POSSIBLE | |
| | | DELAYS | |
| Route | RTE | MAJ DELAYS I75/USE ALT RTE | |
| Shoulder | SHLDR | SHLDR CLOSED NEXT 5 MI | |
| Slippery | SLIP | SLIP COND POSSIBLE/ SLOW SPD | |
| Southbound | S-BND | S-BND I75 CLOSED/DETOUR | |
| | | EXIT 50 | |
| Speed | SPD | SLIP COND POSSIBLE/ SLOW SPD | |
| Street | ST | MAIN ST CLOSED/USE ALT RTE | |
| Traffic | TRAF | CUM PKWAY TRAF/DETOUR | |
| | | EXIT 60 | |
| Vehicle | VEH | OVRSZ COMM VEH/USE I275 | |
| , canonic | , 211 | NEXT RIGHT | |
| Westbound | W-BND | W-BND I64 CLOSED/DETOUR | |
| 201000110 | 21.12 | EXIT 50 | |
| Work | WRK | CONST WRK 2MI/POSSIBLE | |
| ,, om | ,, 1011 | DELAYS | |
| | | | |

Certain abbreviations are prone to inviting confusion because another word is abbreviated or could be abbreviated in the same way. DO NO USE THESE ABBREVIATIONS.

| Abbrev. | Intended Word | Word Erroneously Given |
|---------|----------------------|-------------------------------|
| ACC | Accident | Access (Road) |
| CLRS | Clears | Colors |
| DLY | Delay | Daily |
| FDR | Feeder | Federal |
| L | Left | Lane (merge) |
| LOC | Local | Location |
| LT | Light (traffic) | Left |
| PARK | Parking | Park |
| POLL | Pollution (index) | Poll |
| RED | Reduce | Red |
| STAD | Stadium | Standard |

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> TEMP WRNG

Temporary Warning

Temperature Wrong

TYPICAL MESSAGES

The following is a list of typical messages used on CMS. The list consists of the reason or problem that you want the driver to be aware of and the action that you want the driver to take.

Reason/Problem

ACCIDENT ACCIDENT/XX MILES XX ROAD CLOSED XX EXIT CLOSED BRIDGE CLOSED

BRIDGE/(SLIPPERY, ICE, ETC.) CENTER/LANE/CLOSED DELAY(S), MAJOR/DELAYS

DEBRIS AHEAD DENSE FOG DISABLED/VEHICLE

EMER/VEHICLES/ONLY
EVENT PARKING
EXIT XX CLOSED
FLAGGER XX MILES
FOG XX MILES
FREEWAY CLOSED

FRESH OIL HAZMAT SPILL

ICE

INCIDENT AHEAD

LANES (NARROW, SHIFT, MERGE, ETC.)

LEFT LANE CLOSED LEFT LANE NARROWS LEFT 2 LANES CLOSED LEFT SHOULDER CLOSED

LOOSE GRAVEL

MEDIAN WORK XX MILES

MOVING WORK ZONE, WORKERS IN ROADWAY

NEXT EXIT CLOSED NO OVERSIZED LOADS

NO PASSING NO SHOULDER ONE LANE BRIDGE Action

ALL TRAFFIC EXIT RT AVOID DELAY USE XX CONSIDER ALT ROUTE

DETOUR

DETOUR XX MILES DO NOT PASS EXPECT DELAYS FOLLOW ALT ROUTE

KEEP LEFT
KEEP RIGHT
MERGE XX MILES
MERGE LEFT
MERGE RIGHT
ONE-WAY TRAFFIC
PASS TO LEFT
PASS TO RIGHT
PREPARE TO STOP
REDUCE SPEED

SLOW

SLOW DOWN
STAY IN LANE
STOP AHEAD
STOP XX MILES
TUNE RADIO 1610 AM
USE NN ROAD
USE CENTER LANE
USE DETOUR ROUTE
USE LEFT TURN LANE
USE NEXT EXIT

USE NEXT EXIT
USE RIGHT LANE
WATCH FOR FLAGGER

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PEOPLE CROSSING

RAMP CLOSED

RAMP (SLIPPERY, ICE, ETC.)

RIGHT LANE CLOSED

RIGHT LANE NARROWS

RIGHT SHOULDER CLOSED

ROAD CLOSED

ROAD CLOSED XX MILES

ROAD (SLIPPERY, ICE, ETC.)

ROAD WORK

ROAD WORK (OR CONSTRUCTION) (TONIGHT, TODAY, TOMORROW, DATE)

ROAD WORK XX MILES

SHOULDER (SLIPPERY, ICE, SOFT, BLOCKED, ETC.)

NEW SIGNAL XX MILES

SLOW 1 (OR 2) - WAY TRAFFIC

SOFT SHOULDER

STALLED VEHICLES AHEAD

TRAFFIC BACKUP

TRAFFIC SLOWS

TRUCK CROSSING

TRUCKS ENTERING

TOW TRUCK AHEAD

UNEVEN LANES

WATER ON ROAD

WET PAINT

WORK ZONE XX MILES

WORKERS AHEAD

SPECIAL NOTE FOR TRAFFIC SIGNAL LOOP DETECTORS

I. DESCRIPTION.

Be advised there are existing traffic signal loop detectors within the construction limits of this project. Except as specified herein, perform traffic signal loop replacement in accordance with the Department's Standard and Supplemental Specifications, Special Notes and Special Provisions, and Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications. Furnish all materials, labor, equipment, and incidentals for replacement of traffic signal loop installation(s) and all other work specified as part of this contract.

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

Information provided in this proposal and the types and quantities of work listed are not to be taken as an accurate or complete evaluation of the material and conditions to be encountered during construction. The bidder must draw his own conclusion as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information shown.

It is not anticipated that utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities.

II. MATERIALS.

Except as specified herein, furnish materials in accordance with Sections 723.02 and 835. Provide for materials to be sampled and tested in accordance with the Department's Sampling Manual. Make materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing, unless otherwise specified in these Notes.

- A. Maintain and Control Traffic. See Traffic Control Plan.
- **B. Sand.** Furnish natural sand meeting the requirements of 804.04.01.
- **C. Seeding.** Furnish Seed Mix Type I.

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- **D.** Loop Saw Slot and Fill. Furnish loop sealant, backer rod, and non-shrink grout according to the Saw Slot Detail.
- **E. Junction Boxes.** Furnish electrical Junction Box Type B, #57 Aggregate, and Geotextile Fabric Type IV according to the Junction Box Detail.
- **F. Cable No. 14/1 Pair (Lead-in).** Furnish cable that is specified in section 835. Cable shall be run splice free. This shall include splice kits to connect to the loop wire.
- **G. Conduit.** Furnish and install appropriate conduit from transitions to the roadway, unction boxes and poles. See details below.

III. CONSTRUCTION METHODS.

Except as specified herein, construct and test Traffic Signal Loop Detectors in accordance with Section 723 and the drawings.

- **A. Testing.** The Contractor shall test all loops and Cable No 14/1 Pair (Lead-In) according to section 723.03.17 before and after milling the roadway. The Contractor may have to separate the loop from the lead-in to perform this test. If the existing loop/lead-in meets the requirement in section 723.03.17 at the controller cabinet, the loop/lead-in shall not be replaced. If the existing loop/lead-in does not meet the requirement according to section 723.03.17 either before or after the milling, the loop/lead-in shall be replaced. If the loop is replaced before the milling, the Contractor shall verify that the loop meets the requirements per section 723.03.17 before the final surface is laid. If the loop does not meet the requirements per section 723.03.17, the Contractor shall replace the loop before the resurfacing activities begin and will be incidental to the milling bid item. The Contractor shall be responsible to re-splice the current loop to the lead-in with the proper splice as noted in the Standard Specifications (this will be incidental to the project).
- **B. Coordination.** Notify the Engineer in writing, two (2) weeks prior to beginning any work. The Engineer will contact and maintain liaison with the District Traffic Engineer and the Central Office Division of Traffic Operations to coordinate the Department's operations with the Contractor's work.
- **C. Connection.** The Contractor shall schedule all signal loop installation to ensure the new loops are connected to the lead-in and operational within 5 calendar days of the old loops being damaged and/or disconnected. This requirement includes damage caused by any work activity associated with the project. If the new signal loops are not functioning as intended following 5 calendar days, the Department may assess Liquidated Damages at a rate of \$500 per calendar day per signal location until the loops are operating at preconstruction conditions. All liquidated damages will be applied cumulatively.
- **D. Maintain and Control Traffic.** See Traffic Control Plan.

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E. Milling. On projects involving milling and texturing of the existing pavement, install loops in the existing pavement before or after performing the milling and texturing, but prior to placement of the final asphalt surface course. If after milling the remnant contents of the existing saw slot (grout, loop wires, backer rod, and/or loop sealant) are not intact and flush with or below the top of the milled portion of the asphalt and with the saw slot completely filled with fines from the milling operation, clear the saw slot of loose remnant contents and refill the saw slot with natural sand. Obtain the Engineer's approval of the stabilized saw slot prior to resurfacing. The Department will not measure for separate payment clearing and stabilizing the saw slot, but shall consider this work incidental to Asphalt Pavement Milling and Texturing.

F. Loop Saw Slot and Fill. The following is a typical step by step procedure for the installation of a loop:

- Carefully mark the slot to be cut, perpendicular to the flow of traffic and centered in the lane.
- Make each saw-cut 3/8-inch wide and at a depth such that the top of the backer rod is a minimum of 4 inches below the surface of asphalt pavement.
- Drill a 1½ inch core hole at each corner and use a chisel to smooth corners to prevent sharp bends in the wire.
- Clean ALL foreign and loose matter out of the slots and drilled cores and within 1 foot on all sides of the slots using a high pressure washer.
- Completely dry the slots and drilled cores and within 1 foot on all sides of the slots.
- Measure 9-12 inches from the edge of the paved surface (shoulder break or face of curb) and drill a 1½ inch hole on a 45° angle to the conduit adjacent to the roadway.
- Closely inspect all cuts, cores, and slots for jagged edges or protrusions prior to the placement of the wire. All jagged edges and protrusions shall be ground or recut and cleaned again.
- Place the loop wire splice-free from the termination point (cabinet or junction box) to the loop, continue around the loop for two turns (6'x30' loop) or three turns (6'x6' loop), and return to the termination point.
- Push the wire into the saw slot with a blunt object such as a wooden stick. Make sure that the loop wire is pushed fully to the bottom of the saw slot. Screwdrivers shall not be used.
- Install duct sealant to a minimum of 1 inch deep into the cored 1½ inch hole.
- Apply loop sealant from the bottom up and fully encapsulate the loop wires in the saw slot. The wire should not be able to move when the sealant has set.
- Cover the encapsulated loop wire with a continuous layer of backer rod along the entire loop and home run saw slots such that no voids are present between the loop sealant and backer rod.

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- Finish filling the saw cut with non-shrinkable grout per manufacturer's instructions. Alleviate all air pockets and refill low spaces. There shall be no concave portion to the grout in the saw slot. Any excess grout shall be cleaned from the roadway to alleviate tracking.
- Clean up the site and dispose of all waste off the project.
- Ensure that the grout has completely cured prior to subjecting the loop to traffic. Curing time varies with temperature and humidity.
- **G. Final Dressing, Clean Up, and Seeding.** After all work is completed, clean work sites and all disturbed areas. Dispose of all waste and debris off the right of way at sites obtained by the Contractor at no additional cost to the Department. Sow all disturbed earthen areas with Seed Mix Type I.
- **H. Removal:** The Contractor shall remove all existing junction boxes, wire from spans/poles/junction boxes/conduits, and conduits. The removal will be incidental to the project.
- **I. Property/Roadway Damage.** The Contractor shall be responsible for all damage to public and/or private property resulting from the work. Upon completion of the work, restore all disturbed highway features and private property in like kind design and materials at no additional cost to the Department.
- **J. Right-of-Way Limits.** The Department has not established exact limits of Right-of-Way. Limit work activities to obvious Right-of-Way and work areas secured by the Department through Consent and Release of the adjacent property owners. Be responsible for all encroachments onto private lands.
- **K.** Utility Clearance. Work around and do not disturb existing utilities. The Department does not anticipate that existing utilities will require relocation; however, if utility relocation is required, the utility companies will work concurrently with the Contractor while relocating their facilities.
- **L. Caution.** Consider the information in this proposal and shown on the plans and the type of work listed herein to be approximate. Do not take the information to be an accurate evaluation of the materials and conditions to be encountered during construction. The bidder must draw his own conclusions as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and will not consider any claims for additional compensation if the conditions encountered are not in accordance with the information shown.
- **M.** Control. Perform all work under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other Contractors and its own forces and to permit public

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utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with each other's work will be reduced to a minimum. By submitting bid, the Contractor agrees to make no claims against the Department for additional compensation due to delays or other conditions created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the work in general harmony and in a satisfactory manner, and his decision shall be final and binding upon the Contractor.

N. Bore and Jack. If conduit is under pavement of any kind, bore and jack 2" rigid steel conduit under all pavement areas except for the area that the loop transitions from the saw slot. The installation of conduit should follow the detail below.

IV. MEASUREMENT.

The Department will measure for payment only the bid items listed. See section 723.04 for bid item notes. All other items required to complete the construction shall be incidental to the bid items listed.

- A. Maintain and Control Traffic. See Traffic Control Plan
- **B. Loop Wire.** Bid Item 4830
- **C. Cable No. 14/1 Pair.** Bid item 4850
- **D. Loop Saw Slot and Fill.** Bid item 4895
- **E. Conduit.** Bid item 4792, 4793, and 4795
- **F. Trenching and Backfilling.** Bid item 4820
- **G. Electrical Junction Box Type B.** Bid item 4811
- H. Bore and Jack Conduit. Bid item 21543EN
- **V. PAYMENT.** The Department will make payment for the completed and accepted quantities of listed items according to Section 723.05. The Department will consider payment as full compensation for all work required under these notes and the Standard Specifications.

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VI. CONSTRUCTION AND MEASUREMENT NOTES THAT ARE CONTRARY TO SECTION 723:

Subsection: 03.02 Poles and Bases Installation.

Revision: Replace the first paragraph with the following:

Regardless of the station and offset noted, locate all poles/bases behind the guardrail a minimum of four feet from the front face of the guardrail to the front face of the pole base. Orient the handhole door away from traffic travel path. If pole base is installed within a sidewalk the top of the pole base shall be the same grade as the sidewalk.

Subsection: 03.02 Poles and Bases Installation. Part: A) Steel Strain Mast Arm Pole Installation.

Revision: Insert the following sentence at the beginning of the first paragraph:

Install pole bases 4 to 6 inches above grade.

Subsection: 03.02 Poles and Bases Installation.

Part: A) Steel Strain and Mast Arm Pole Installation.

Revision: Replace the second paragraph with the following:

For concrete base installation, see subsection 716.03.02 b), 2), paragraphs 2-6. Drilled shaft depth shall be based on the soil conditions encountered during drilling and slope condition at the site. Refer to the design chart below:

Subsection: 03.02 Poles and Bases Installation. Part: B) Pedestal or Pedestal Post Installation.

Revision: Replace the second sentence with the following:

If over 12 feet high the base shall have the minimum depth and diameter as subsection 716.03.02 (a), paragraph 2.

Subsection: 03.03 Trenching.

Revision: Replace the first sentence with the following:

See subsection 716.03.03 (b).

Subsection: 03.03 Trenching. Part: A) Under Roadway

Revision: Delete part A) Under Roadway.

Subsection: 03.05 Conduit Requirements in Junction Boxes.

Revision: Delete the subsection and replace with the following:

723.03.05 Fuse Connector Kits. See subsection 716.03.09.

Subsection: 03.06 Coupling Installation.

Revision: Delete the subsection and replace with the following:

723.03.06 Painting. See subsection 716.03.15.

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Subsection: 03.07 Bonding Requirements.

Revision: Delete the subsection and replace with the following: 723.03.07 Electrical Junction Boxes. See subsection 716.03.10.

Subsection: 03.15 Painting

Revision: Remove title and change to Remove Signal Equipment. Replace entire

note with the following:

Remove all traffic signal equipment that is identified by the Engineer as no longer necessary including, but not limited to, the following: pole bases, poles, junction boxes, cabinets, wood poles, and advance warning flashers. Pole bases shall be removed a minimum of one foot below finished grade by chipping off or other method that is approved by the Engineer. Dispose of all removed concrete off right-of-way. Wood poles shall be removed a minimum of one foot below finished grade. Backfill holes with material approved by the Engineer. Conduit may be abandoned in the ground. Contact the District Traffic Engineer to determine if any removed signal equipment needs to be returned to the district and to determine the location/time for such deliveries.

Subsection: 03.17 Acceptance And Inspection Requirements.

Revision: Replace the first paragraph of the section with the following:

See subsection 105.12. In coordination with the District Traffic Engineer, energize traffic control device as soon as it is fully functional and ready for inspection. After the work has been completed, conduct an operational test demonstrating that the system operates in accordance with the plans in the presence of the Engineer. The Department will also conduct its own tests with its own equipment before final acceptance. Ensure that the traffic control device remains operational until the Division of Traffic Operations has provided written acceptance of the electrical work.

Subsection: 04.01 Conduit

Revision: Replace the second sentence of the subsection with the following:

The Department will not measure conduit fittings, ground lugs, test plugs, expansion joints, and clamps for payment and will consider them incidental to this item of work.

Subsection: 04.02 Junction Box.

Revision: Replace the subsection with the following:

The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure additional junction boxes for greater depths than those identified in plans, aggregate (#57), backfilling, restoration of disturbed areas to the satisfaction of the Engineer, geotextile fabric, concrete, hot dipped galvanized cover, stainless steel screws, rubber gasket, and any associated hardware for payment and will consider them incidental to this item of work.

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Subsection: 04.03 Trenching and Backfilling.

Revision: Replace the second sentence with the following:

The Department will not measure excavation, backfilling, underground utility warning tape, and the restoration of disturbed areas to original condition for payment and will consider them incidental to this item of work.

Subsection: 04.05 Loop Wire.

Revision: Replace the second sentence of the subsection with the following:

The Department will not measure splice boots, cable rings, and any other necessary hardware for payment and will consider them incidental to this item of work.

Subsection: 04.06 Cable.

Revision: Replace the second sentence of the subsection with the following:

The Department will not measure splice boots, cable rings, and any other hardware for payment and will consider them incidental to this item of work.

Subsection: 04.15 Loop Saw Slot and Fill.

Revision: Replace the second sentence of the subsection with the following:

The Department will not measure sawing, cleaning, filling induction loop saw slot, loop sealant, backer rod, drilling hole for conduit, and grout for payment and will consider them incidental to this item of work.

Subsection: 04.30 Bore and Jack Conduit.

Revision: Replace the paragraph with the following:

The Department will measure the quantity in linear feet. This item shall include all work necessary for boring and installing conduit under an existing roadway.

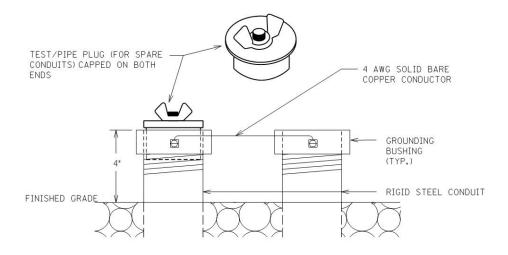
VII. CONSTRUCTION AND MEASUREMENT NOTES THAT ARE CONTRARY TO SECTION 716:

Subsection: 03.04 Conduit Installation.

Revision: Add the following Part G to the subsection:

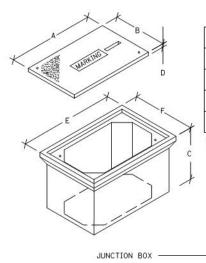
G) Bore and Jack. Construction methods shall be in accordance with subsections 706.03.02, paragraphs 1, 2 and 4.

Traffic Signal Loop Detectors Page 9 of 12



TEST/PIPE PLUG(FOR SPARE CONDUITS) AND GROUNDING DETAIL

Traffic Signal Loop Detectors Page 10 of 12



| | JUNC | TION BOX [| DIMENSION: | S (NOMINAL) | | 6 |
|--------|------|------------|------------|-------------|-----|-----|
| | А | В | С | D | Ε | F |
| TYPE A | 23* | 14" | 27' | 2" | 25" | 15' |
| TYPE B | 18" | 11* | 12" | 13/4" • | 20" | 13" |
| TYPE C | 36" | 24" | 30" | 3* | 38" | 26" |

MINIMUM
 NOTE: STACKABLE BOXES ARE PERMITTED

BEFORE THE INSTALLATION OF THE "57 AGGREGATE AND JUNCTION BOX, THE CONTRACTOR SHALL INSTALL GEOTEXTILE FILTER FABRIC TYPE IV IN THE HOLE. THE FABRIC SHALL EXTEND TO JUST BELOW THE LIP OF THE JUNCTION BOX AND SHALL BE CONTINUOUSLY ADHERED TO THE EXTERIOR OF THE BOX WITH ADHESIVE. ANY LOCATIONS WHERE CONDUITS ENTER THE BOX, THE FABRIC SHALL BE "X CUT" ONLY AS MUCH AS NECESSARY TO ALLOW PASSAGE OF EACH INDIVIDUAL CONDUIT THROUGH THE FABRIC. THE FABRIC SHALL BE INCIDENTAL TO BID ITEMS 4811, 2039INS835, OR 20392NS835.

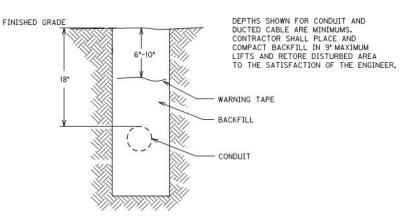
CONDUCTOR INSTALLATIONSCONDUIT SHALL BE EXPOSED
4" FROM BOTTOM OF BOX

EARTH

GRADATION SIZE
NO. 57 AGGREGATE

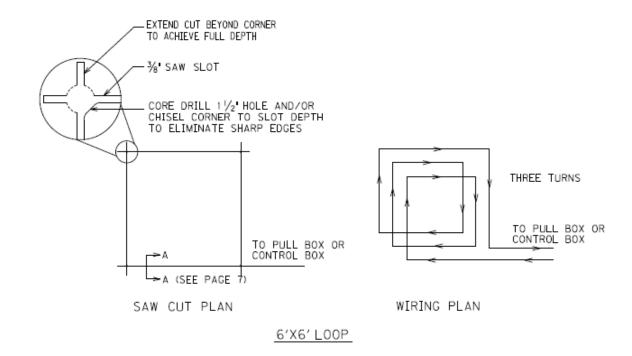
FIBER FABRIC TYPE IV

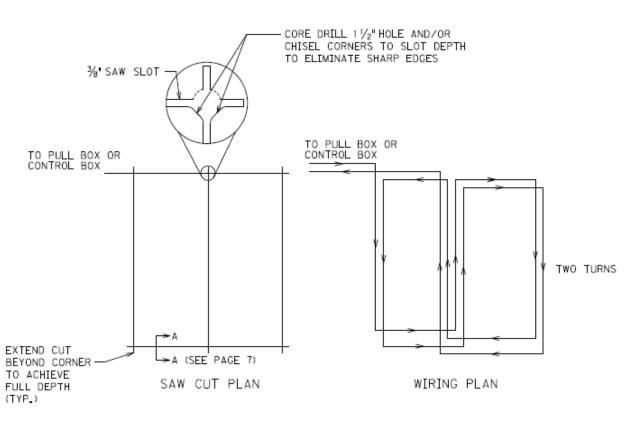
JUNCTION BOX INSTALLATION FOR
CONVENTIONAL LIGHTING OR TRAFFIC SIGNALS



CONDUIT AND WARNING TAPE TRENCH

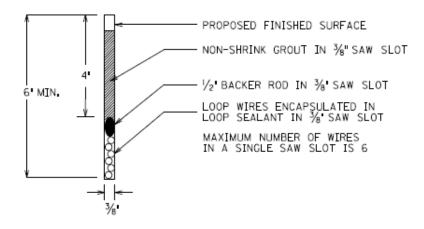
Traffic Signal Loop Detectors Page 11 of 12



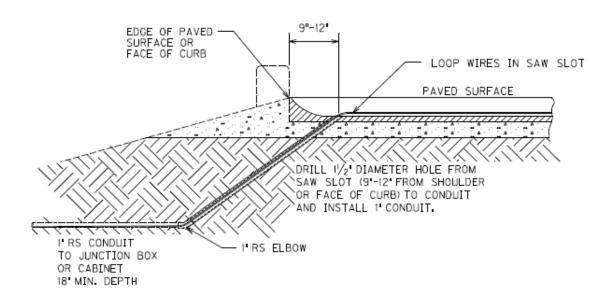


6'X30' QUADRAPOLE LOOP

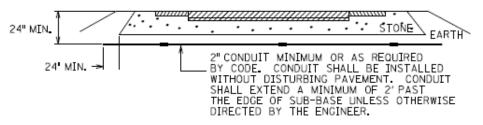
Traffic Signal Loop Detectors Page 12 of 12



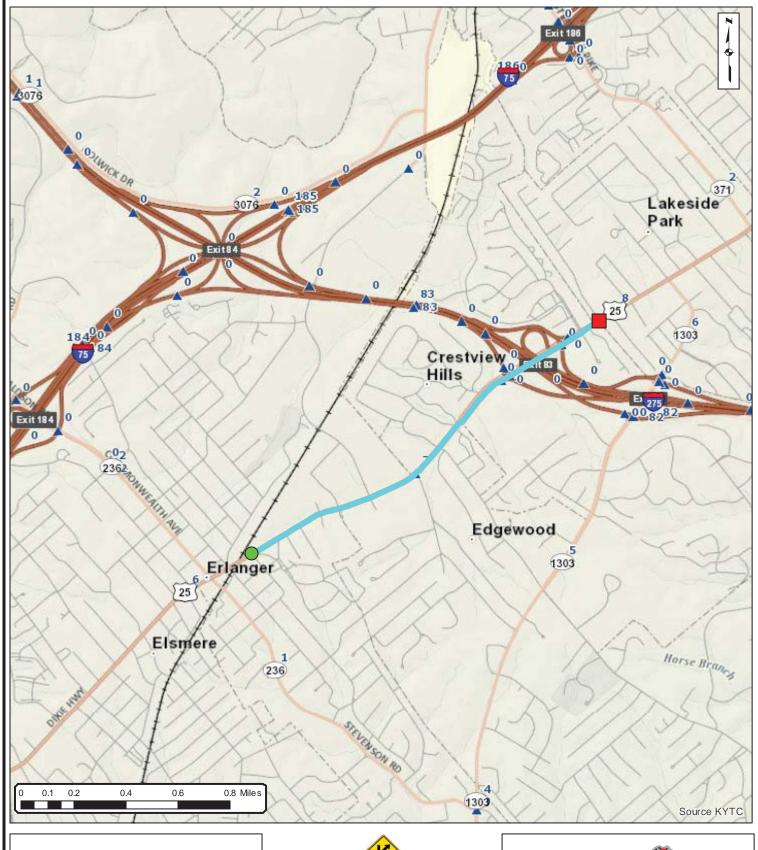
SECTION A-A (SAW SLOT DETAIL)



SAW SLOT EDGE OF PAVEMENT TRANSITION

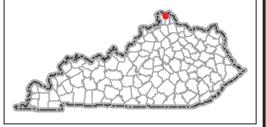


CONDUIT UNDER EXISTING PAVEMENT DETAIL



FD05 059 0025 006-008 FE01 059 0025 006-008 **Kentucky Transportation Cabinet**

200 Mero St, Suite W-5 Frankfort, KY 40601 Phone:(502) 564-4890



MATERIAL SUMMARY

| CONTRACT ID: 162163 | 059GR16P087-FD05 & FE01 | MP05900251601 |
|---------------------|-------------------------|---------------|
|---------------------|-------------------------|---------------|

DIXIE HIGHWAY (US 25) FROM 95 FEET NORTH OF HALLAM AVENUE EXTENDING NORTH TO CARRAN DRIVE ASPHALT RESURFACING, A DISTANCE OF 1.61 MILES.

| Project Line No | Bid Code | DESCRIPTION | Quantity | Unit |
|--------------------|------------|---------------------------------------|-----------|------|
| 0005 | 00190 | LEVELING & WEDGING PG64-22 | 140.00 | TON |
| 0010 | 02562 | TEMPORARY SIGNS | 570.00 | SQFT |
| 0015 | 02650 | MAINTAIN & CONTROL TRAFFIC - (FD05) | 1.00 | LS |
| 0020 | 02671 | PORTABLE CHANGEABLE MESSAGE SIGN | 2.00 | EACH |
| 0025 | 02676 | MOBILIZATION FOR MILL & TEXT - (FD05) | 1.00 | LS |
| 0030 | 02677 | ASPHALT PAVE MILLING & TEXTURING | 5,635.00 | TON |
| 0035 | 02720 | SIDEWALK-4 IN CONCRETE | 301.00 | SQYD |
| 0040 | 02775 | ARROW PANEL | 2.00 | EACH |
| 0045 | 03240 | BASE FAILURE REPAIR | 85.00 | SQYD |
| 0050 | 04793 | CONDUIT-1 1/4 IN | 255.00 | LF |
| 0055 | 04795 | CONDUIT-2 IN | 163.00 | LF |
| 0060 | 04811 | ELECTRICAL JUNCTION BOX TYPE B | 18.00 | EACH |
| 0065 | 04830 | LOOP WIRE | 11,526.00 | LF |
| 0070 | 04850 | CABLE-NO. 14/1 PAIR | 3,949.00 | LF |
| 0075 | 04895 | LOOP SAW SLOT AND FILL | 4,556.00 | LF |
| 0800 | 06510 | PAVE STRIPING-TEMP PAINT-4 IN | 37,455.00 | LF |
| 0085 | 06514 | PAVE STRIPING-PERM PAINT-4 IN | 37,455.00 | LF |
| 0090 | 06565 | PAVE MARKING-THERMO X-WALK-6 IN | 3,594.00 | LF |
| 0095 | 06568 | PAVE MARKING-THERMO STOP BAR-24IN | 945.00 | LF |
| 0100 | 06573 | PAVE MARKING-THERMO STR ARROW | 4.00 | EACH |
| 0105 | 06574 | PAVE MARKING-THERMO CURV ARROW | 54.00 | EACH |
| 0110 | 06575 | PAVE MARKING-THERMO COMB ARROW | 7.00 | EACH |
| 0115 | 06576 | PAVE MARKING-THERMO ONLY | 2.00 | EACH |
| 0120 | 06600 | REMOVE PAVEMENT MARKER TYPE V | 534.00 | EACH |
| 0125 | 10020NS | FUEL ADJUSTMENT | 7,526.00 | DOLL |
| 0130 | 10030NS | ASPHALT ADJUSTMENT | 18,903.00 | DOLL |
| 0135 | 22906ES403 | CL3 ASPH SURF 0.38A PG64-22 | 4,695.00 | TON |
| 0140 | 23158ES505 | DETECTABLE WARNINGS - (NEW) | 512.00 | SQFT |
| 0145 | 24489EC | INLAID PAVEMENT MARKER | 335.00 | EACH |
| 0150 | 24625EC | REMOVE AND REINSTALL QWICK CURB | 580.00 | LF |
| 0155 | 02569 | DEMOBILIZATION | 1.00 | LS |

MATERIAL SUMMARY

| CONTRACT ID: 162163 | 059GR16P087-FD05 & FE01 | MP05900251602 |
|---------------------|-------------------------|----------------|
| CONTRACT ID: 102103 | 039GK10P007-FD03 & FE01 | WIPU59UU2516U2 |

DIXIE HIGHWAY (US 25) FROM 95 FEET NORTH OF HALLAM AVENUE EXTENDING NORTH TO CARRAN DRIVE ASPHALT RESURFACING, A DISTANCE OF 1.61 MILES.

| Project Line No | Bid Code | DESCRIPTION | Quantity | Unit |
|--------------------|----------|-------------------------------------|----------|------|
| 0005 | 01810 | STANDARD CURB AND GUTTER | 71.00 | LF |
| 0010 | 01812 | REMOVE CURB AND GUTTER | 71.00 | LF |
| 0015 | 02562 | TEMPORARY SIGNS | 150.00 | SQFT |
| 0020 | 02650 | MAINTAIN & CONTROL TRAFFIC - (FE01) | 1.00 | LS |
| 0025 | 02569 | DEMOBILIZATION | 1.00 | LS |

Kenton County THERMOPLASTIC INTERSECTION PAVEMENT MARKINGS SUMMARY FD05 059 0025 006-008

| | | X-WALKS | STP BARS | | ARROWS | | "ONLY" | CATRAXX | | AILROAD | |
|-------------------------|--------------------------------|--------------|---------------|--|--|------------|--------|--|------------------|----------------------|-------|
| MPT. | INTERSECTION | 6 INCH LF | 24 INCH LF | CURVE EA | STR EA | COMB EA | EA | 6 INCH LF | "R" 6 FOOT EA | CROSS BUCK 16" LF | NOTES |
| 6.334 | Hallam (M/L) | | | 1 | T | | | T | | | |
| 6.399 | ~ Salvadores | | | 1 | | | | | | | |
| 6.406 | ~ Salvadores | | | 1 | | | | | | | |
| | Shorthill Ln | 64 | 12 | | | | | | | | |
| | Clover Ln | 68 | 10 | | | | | | | | |
| 6.550 | Johnnys Car Wash | | | 1 | | | | | | | |
| 6.554 | Johnnys Car Wash | | | 1 | | | | | | | |
| 6.592 | Kroger | | 20 | 1 | | | | | | | |
| 6.603 6.612 | Kroger Kroger | 495 | 39 | | | | | | | | |
| 0.012 | Kroger Entrance (Side) | 433 | 22 | 2 | | 2 | | | | | |
| | Skyline Entrance (Side) | | 22 | 2 | | | | | | | |
| 6.626 | Kroger | | 39 | | | | | | | | |
| 6.636 | Kroger | | | 1 | | | | | | | |
| 6.657 | Montgomery Rd | | | 1 | | | | | | | |
| 6.671 | Montgomery Rd | | | 1 | | | | | | | |
| 6.676 | Montgomery Rd | | 39 | | | | | | | | |
| | Montgomery Rd (Side) | | 22 | 1 | | 1 | | | | | |
| | USPS Entrance (Side) | F00 | 30 | 2 | | 2 | | | | | |
| 6.684 | Montgomery Rd | 528 | 20 | | | | | | | | |
| 6.692 6.700 | Montgomery Rd | | 39 | 1 | 1 | | | - | | | |
| 6.700 | Montgomery Rd Walgreens | | | 1 | 1 | | | 1 | | | |
| 6.717 | Kenton Lands | | | 1 | ! | | | | | | |
| 6.762 | Kenton Lands | | | 1 | 1 | | | | | | |
| 6.769 | Kenton Lands | | 41 | | 1 | | | 1 | | | |
| 6.778 | Kenton Lands | 540 | | | | | | 1 | | | |
| 6.792 | Kenton Lands | 1 | 41 | | İ | | | İ | | | |
| 6.803 | Kenton Lands | | | 1 | | | | İ | | | |
| 6.898 | Shell/Thorntons | | | 1 | | | | | | | |
| 6.907 | Shell/Thorntons | | | 1 | | | | | | | |
| 6.985 | Edgewood Rd | | 26 | | | | | | | | |
| 7.003 | Edgewood Rd | 565 | | | | | | | | | |
| | Edgewood Rd (Side) | | 28 | 2 | | | | | | | |
| | Dixie HS Exit (Side) | | 32 | 2 | | 1 | | | | | |
| 7.015 | Edgewood Rd | | 38 | | | | | | | | |
| 7.026 | Edgewood Rd | | | 1 | | | | | | | |
| 7.048 | Edgewood Rd | | | 1 | | | | | | | |
| 7.122 | Dudley Rd | | | 2 | | | | | | | |
| 7.134 | Dudley Rd | | 44 | 2 | | | | | | | |
| 7.138 7.150 | Dudley Rd Dudley Rd | 400 | 44 | | | | | | | | |
| 7.130 | Summit Dr (Side) | 400 | 24 | 1 | | 1 | | | | | |
| 7.165 | Dudley Rd | | 44 | | | • | | | | | |
| 7.172 | Dudley Rd | | | 1 | | | | | | | |
| 7.181 | Dudley Rd | | | 1 | | | | | | | |
| | Parkway Dr (Side) | | 10 | | | | | | | | |
| 7.251 | Crestview TC 1 | | | 1 | | | | | | | |
| 7.258 | Crestview TC 1 | | 40 | | | | | | | | |
| 7.268 | Crestview TC 1 | 434 | | | | | | | | | |
| | Rosemont Ave (Side) | | 10 | | | | | | | | |
| 7.275 | Crestview TC 1 | | 40 | ļ | ļ | | | | | | |
| 7.289 | Crestview TC 1 | | | 1 | <u> </u> | | | | | | |
| 7.312 | Crestview TC 1 | | | 1 | 1 | | | 1 | | | |
| 7.378 | Crestview TC 2 | | | 1 | ! | | | | | | |
| 7.394 7.400 | Crestview TC 2 Crestview TC 2 | - | 35 | 1 | | | | - | | | |
| 7.400 | Crestview TC 2 | 210 | JJ | | 1 | | | | | | |
| 00 | Winding Way (Side) | -10 | 18 | | 1 | | | 1 | | | |
| 7.416 | Crestview TC 2 | | 48 | | | | | 1 | | | |
| 7.421 | Crestview TC 2 | İ | - | 2 | 2 | | | İ | | | |
| 7.433 | | | | 1 | | | | | | | |
| 7.447 | | | | | | | 1 | | | | |
| 7.460 | | | | 3 | 2 | | | | | | |
| 7.477 | | | | | | | 1 | | | | |
| 7.492 | | | | 1 | | | | | | | |
| 7.533 | Highway (NB 25) | | 25 | <u> </u> | | | | | | | |
| 7.553 | Highway (SB 25) | | 48 | | <u> </u> | | | ļ | | | |
| 7.562 | Highway (SB 25) | | | 1 | <u> </u> | | | | | | |
| 7.583 | Highway (SB 25) | | | 1 | 1 | | | 1 | | | |
| 7.700 | Highway (NB 25) | | | 1 | 1 | | | 1 | | | |
| 7.749 | Highway (NB 25) | | | 1 | | | | | | | |
| 7.803 | Lookout Farms Lookout Farms | | | 1 | 1 | | | 1 | | | |
| | Lookout Farms Lookout Farms | | 33 | - '- | t | | | 1 | | | i |
| 7.844 7.847 | | | 33 | 1 | 1 | | | | | | |
| 7.847 | | 200 | | | 1 | | | | | | |
| 7.847 7.855 | Lookout Farms | 290 | 24 | | | | | | | | |
| 7.847 7.855 7.871 | Lookout Farms Lookout Farms | 290 | 24 22 | | | | | | | | |
| 7.847 7.855 | Lookout Farms | 290 | 24 22 | | | | | | | | |
| 7.847 7.855 7.871 | Lookout Farms Lookout Farms | 290 | | | | | | | | | |

| KENTON COUNTY | Contract ID: 162163 |
|--|-------------------------------------|
| 059GR16P087-F p 05 & FED1 | |
| Junction Box NE Corner Junction Box NE Corner Junction Box NW Corner Lt Turn Lane Str/Rt Turn Lane Rt Turn Lane Aunction Box SW Corner Junction Box SW Corner Junction Box NE Corner Rt Turn Lane Lt/Str Turn Lane Lt/Str Turn Lane Lt/Str Turn Lane Lt/Str Turn Lane Lt/Str Turn Lane Str/Rt Turn Lane Junction Box NW Corner Junction Box NW Corner Junction Box NW Corner Junction Box SW Corner Junction Box SW Corner Junction Box SW Corner Junction Box SW Corner Junction Box SW Corner Junction Box SW Corner | urn Lane urn Lane urn Lane urn Lane |

326

34 62 34 34 34

264 264

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102 102

School S. Drive School S. Drive

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School S. Drive

Edgewood Rd Edgewood Rd **Edgewood Rd**

M/L SB

占 R

143

324

Town Center Blvd

Rosemont Ave

M/L SB

R

9 5

264

Winding Way Town Center Blvd

M/L NB M/L SB M/L SB

Town Center Blvd

Winding Way

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0 0

50 30

264 264 264

104

Town Center Blvd

Town Center Blvd

RT ᆸ

8 29

9 4

102

Dudley Rd Summit Dr Summit Dr

M/L SB

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M/L NB

Dudley Rd

264 264

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WB 275 Decel Rp

M/L SB

Carran Dr

Skyline Entrance

Kroger Entrance Kroger Entrance

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Kroger Entrance Skyline Entrance Skyline Entrance

M/L NB

M/L SB

占 R

See notes

below

264

TOTAL

LEAD

STANDARD LOOP

TOTAL

LEAD

STANDARD LOOP

JUNCTION TYPE B

CABLE CONDUIT CONDUIT NO 14-1 11/4 INCH 2 INCH

LOOP WIRE

SAW, SLOT AND FILL

INTERSECTION

Direction

TRAFFIC LOOP SUMMARY

Kenton County

FD05 059 0025 006-008

Montgomery St

Montgomery St

RT

느

RT

102 102 102

0 22

185

384 288

Montgomery St Montgomery St

M/L NB M/L SB

Montgomery St

264 264 264

 _

~

102

Kentonlands Rd

M/L SB

ᅼ Ц

M/L NB

Kentonlands Rd

Kentonlands Rd

Kentonlands Rd

NOTES: Rt and Lt refers to the side of the road the enterance is on to M/L. M/L NB and M/L SB refers to Mainline turn lanes. TOTALS

Kenton County SIDEWALK RAMP AND DETECTABLE WARNING SUMMARY FD05 059 0025 006-008

| Location | INTERSECTION | RAMP | RAMP | DETECTABLE | WARNING | NOTES |
|-----------|-----------------|------|------|------------|---------|--|
| | | | į | WARNING | NEW | |
| | | TYPE | SΥ | QUANTITY | SF | |
| SE | Shorthill Ln | - | 0.9 | - | 8 | |
| NE. | | _ | 8.0 | - | 8 | |
| SE | Clover | - | 4.0 | - | 8 | |
| NE. | | - | 8.7 | - | 8 | 16' Remove and Replace Curb and Gutter |
| SW | Kroger | - | 15.3 | 2 | 16 | |
| νw | | | 8.7 | 2 | 16 | |
| SE | | - | 7.3 | 2 | 16 | |
| NE NE | | _ | 8.0 | 2 | 16 | |
| SE | Montgomery | - | 7.3 | 2 | 16 | |
| NE | | - | 8.0 | 2 | 16 | |
| SW | | - | 9.3 | 2 | 16 | |
| ΝN | | - | 10.0 | 2 | 16 | |
| SE | Kenton Lands | _ | 9.3 | 2 | 16 | |
| NE. | | _ | 5.3 | 2 | 16 | |
| SW | | _ | 9.3 | 2 | 16 | |
| ΝN | | _ | 10.0 | 2 | 16 | |
| SE | Edgewood Rd | _ | 8.0 | 2 | 16 | |
| NE NE | | - | 13.3 | 2 | 16 | 18' Remove and Replace Curb and Gutter |
| SW | | - | 10.7 | 2 | 16 | 9' Remove and Replace Curb and Gutte |
| MN | | - | 8.7 | 2 | 16 | 6' Remove and Replace Curb and Gutter |
| SW | Summit Dr | _ | 8.0 | 2 | 16 | |
| ΜN | | _ | 8.0 | , | 8 | |
| SW | Parkway | _ | 5.3 | - | 8 | |
| ۸× | | _ | 8.0 | - | 8 | |
| AS. | Rosemont | - | 10.0 | 2 | 16 | 12' Remove and Replace Curb and Gutter |
| ۸N | | _ | 6.7 | 2 | 16 | 10' Remove and Replace Curb and Gutter |
| SW | Winding Way | _ | 3.9 | - | 8 | |
| ΔV | | _ | 10.0 | 2 | 16 | |
| SE | | _ | 4.7 | 1 | 8 | |
| NE | | - | 10.0 | - | 8 | |
| SW | 275 EB Off Ramp | - | 3.3 | 1 | 8 | |
| SW island | | - | 5.6 | - | 8 | |
| NW island | | - | 3.3 | - | 8 | |
| WN | | - | 4.4 | - | 8 | |
| SW | 275 WB Off Ramp | - | 4.4 | 1 | 8 | |
| WN | | - | 4.4 | - | 8 | |
| SW | 275 EB On Ramp | - | 4.4 | - | 8 | |
| SW island | | _ | 4.4 | - | 8 | |
| NW island | | _ | 2.8 | 1 | 8 | |
| ΛW | | - | 3.3 | - | 8 | |
| SW | Lookout Farms | - | 0.9 | 2 | 16 | |
| WN | | _ | 4.4 | 2 | 16 | |
| | | | | | | |
| | | | | | | |

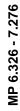
Milling Summary FD05 059 0025 006-008

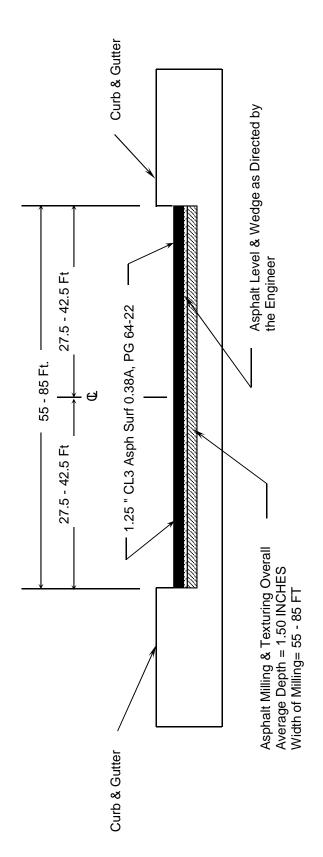
| 6.326 924.0 55 1.5 46 6.501 538.6 55 1.5 27 6.603 84.5 64 1.5 56 6.603 84.5 64 1.5 56 6.603 84.5 64 1.5 56 6.603 84.5 64 1.5 56 6.604 1.5 33 6.6.28 68.6 73 1.5 44 6.6.61 1.5 33 6.6.28 68.6 73 1.5 44 6.6.654 58.1 62 1.5 33 6.6.655 68.6 72 1.5 43 6.6.678 68.6 68.6 72 1.5 45 6.691 253.4 65 1.5 15 6.770 68.6 65 1.5 15 6.770 68.6 65 1.5 15 6.770 68.6 65 1.5 44 6.807 88.4 80 1.5 44 6.807 88.4 80 1.5 44 6.807 88.4 80 1.5 44 6.967 89.8 60 1.5 45 6.964 137.3 73 1.5 45 6.964 137.3 73 1.5 57 7.010 42.2 80 1.5 33 7.018 116.2 73 1.5 77 7.040 274.6 62 1.5 15 7.092 126.7 56 1.5 65 7.141 126.7 78 1.5 85 7.141 126.7 78 1.5 85 7.142 126.7 78 1.5 85 7.145 156 158.4 66 1.5 99 7.145 158.4 66 1.5 99 7.146 158.4 66 1.5 99 7.147 168 132.0 73 1.5 88 7.155 158.4 66 1.5 99 7.165 158.4 66 1.5 99 7.1795 311.5 64 1.5 18 7.254 21.1 76 1.5 99 7.254 21.1 76 1.5 15 7.254 21.1 76 1.5 15 7.261 22.2 1.5 15 7.374 165.0 74 1.5 11 7.407 1.5 19 7.519 156.4 80 1.5 19 7.519 156.4 80 1.5 19 7.519 156.4 80 1.5 19 7.529 121.2 101 1.5 19 7.547 159 156.4 80 1.5 19 7.559 122.3 74 1.5 19 7.579 122.3 74 1.5 19 7.579 122.3 74 1.5 19 7.579 122.3 74 1.5 19 7.579 122.3 74 1.5 19 7.579 122.3 74 1.5 19 7.579 122.3 74 1.5 19 7.579 122.3 74 1.5 19 7.579 122.3 74 1.5 19 7.579 122.3 74 1.5 19 7.579 122.3 74 1.5 19 7.579 122.3 74 1.5 19 7.579 122.3 74 1.5 19 7.579 122.3 74 1.5 15 7.877 1.5 15 7.877 1.5 142.6 70 1.5 15 7.877 1.5 15 15 7.877 1.5 142.6 70 1.5 15 7.877 1.5 15 15 7.877 1.5 15 15 7.877 1.5 15 15 7.887 1.5 15 7.898 1.5 10 7.898 1.5 10 7.898 1.5 1.5 12 7.898 1.5 | | | | | Total | 5635 |
|--|-----------|--------------------|--------|-------|-----------|----------|
| 6.501 538.6 55 1.5 27 6.603 84.5 64 1.5 55 6.603 84.5 64 1.5 55 6.619 47.5 75 1.5 33 6.628 68.6 68.6 73 1.5 44 6.641 68.6 661 1.5 38 6.641 68.6 661 1.5 38 6.654 58.1 62 1.5 33 6.665 68.6 72 1.5 44 6.678 68.6 75 1.5 47 6.691 253.4 65 1.5 15 6.779 68.6 65 1.5 15 6.770 68.6 65 1.5 44 6.733 58.1 80 1.5 44 6.744 68.6 77 1.5 44 6.794 68.6 77 1.5 44 6.807 844.8 60 1.5 45 6.984 137.3 73 1.5 39 7.010 42.2 80 1.5 31 7.010 42.2 80 1.5 31 7.010 42.2 80 1.5 31 7.040 274.6 62 1.5 15 7.092 126.7 56 1.5 64 7.092 126.7 56 1.5 68 7.141 126.7 78 1.5 98 7.165 158.4 66 1.5 98 7.165 158.4 66 1.5 18 7.254 21.1 88 1.5 17 7.255 121.4 72 1.5 88 7.254 21.1 88 1.5 17 7.255 121.4 72 1.5 88 7.371 7.374 169.0 74 1.5 11 7.387 7.490 110.9 94 1.5 99 7.408 110.9 94 1.5 99 7.599 306.2 74 1.5 11 7.607 7.85 1.5 12 7.754 89.8 80 1.5 13 7.607 7.754 89.8 80 1.5 15 7.757 7.754 89.8 80 1.5 15 7.757 7.754 89.8 80 1.5 15 7.757 7.754 89.8 80 1.5 15 7.757 1.5 12 7.758 1.5 1.5 12 7.759 1.5 1.5 1.5 7.759 1.5 1.5 1.5 7.750 1.5 1.5 1.5 7.751 1.5 1.5 7.752 1.5 1.5 1.5 7.752 1.5 1.5 1.5 7.754 1.5 1.5 1.5 7.755 1.5 1.5 1.5 7.757 1.5 1.5 1.5 7.758 1.5 1.5 1.5 7.759 1.5 1.5 1.5 7.759 1.5 1.5 1.5 7.750 1.5 1.5 1.5 7.751 1.5 1.5 1.5 7.752 1.5 1.5 1.5 7.754 1.5 1.5 1.5 7.757 1.5 1.5 1.5 7.757 1.5 1.5 1.5 7.758 1.5 1.5 1.5 7.759 1.5 1.5 1.5 7.751 1.5 1.5 1.5 7.752 1.5 1.5 1.5 7.754 1.5 1.5 1.5 7.755 1.5 1.5 1.5 7.756 1.5 1.5 1.5 7.757 1.5 1.5 | Milepoint | Comment | Length | Width | Avg Depth | Tons |
| 6.603 | | | | | | 466 |
| 6.619 | | | | | | 272 |
| 6.628 68.6 73 1.5 46 6.641 68.6 68.6 61 1.5 33 6.654 58.1 62 1.5 33 6.665 68.6 72 1.5 44 6.678 68.6 72 1.5 45 6.691 253.4 65 1.5 15 6.739 163.7 61 1.5 92 6.739 163.7 61 1.5 93 6.74 68.6 65 1.5 41 6.794 68.6 77 1.5 44 6.807 844.8 60 1.5 44 6.967 89.8 60 1.5 44 6.967 89.8 60 1.5 44 6.967 89.8 60 1.5 43 6.984 137.3 73 1.5 39 7.010 42.2 80 1.5 33 7.018 116.2 73 1.5 77 7.040 274.6 62 1.5 15 7.116 132.0 73 1.5 88 7.141 126.7 78 1.5 88 7.155 158.4 66 1.5 99 7.116 132.0 73 1.5 88 7.254 21.1 88 1.5 13 7.258 121.4 72 1.5 86 7.281 21.1 76 1.5 15 7.321 279.8 84 1.5 15 7.321 279.8 84 1.5 15 7.374 169.0 74 1.5 15 7.497 211.2 101 1.5 15 7.599 158.4 80 1.5 15 7.599 126.7 56 1.5 15 7.374 169.0 74 1.5 15 7.375 3776 3777 | | | | | | |
| 6.641 | | | | | | |
| 6.654 | | | | | | 38 |
| 6.665 68.6 72 1.5 45 6.678 68.6 75 1.5 47 6.691 253.4 65 1.5 6.739 163.7 61 1.5 92 6.770 68.6 65 1.5 41 6.770 68.6 65 1.5 41 6.783 58.1 80 1.5 6.784 68.6 77 1.5 44 6.807 844.8 60 1.5 46 6.967 89.8 60 1.5 46 6.967 89.8 60 1.5 45 6.984 137.3 73 1.5 92 7.010 42.2 80 1.5 31 7.018 116.2 73 1.5 77 7.040 274.6 62 1.5 15 7.092 126.7 56 1.5 65 7.116 132.0 73 1.5 99 7.114 126.7 78 1.5 99 7.145 158.4 66 1.5 99 7.195 311.5 64 1.5 18 7.254 21.1 88 1.5 17 7.281 21.1 76 1.5 15 7.285 190.1 86 1.5 15 7.321 279.8 84 1.5 29 7.479 211.2 101 1.5 19 7.591 7.591 158.4 80 1.5 17 7.591 123.3 74 1.5 15 7.696 306.2 74 1.5 17 7.754 89.8 80 1.5 15 7.785 142.6 70 1.5 15 7.799 158.4 80 1.5 15 7.591 232.3 74 1.5 15 7.696 306.2 74 1.5 15 7.785 142.6 70 1.5 15 7.799 158.4 80 1.5 17 7.591 232.3 74 1.5 15 7.696 306.2 74 1.5 15 7.787 327.4 46 1.5 15 7.897 7.799 211.2 101 1.5 19 7.591 58.4 80 1.5 15 7.696 306.2 74 1.5 15 7.785 142.6 70 1.5 91 7.786 142.6 70 1.5 91 7.799 1799 1790 1790 1790 7.897 142.6 70 1.5 15 7.897 142.6 70 1.5 15 7.897 142.6 70 1.5 15 7.898 142.6 70 1.5 15 7.899 142.6 70 1.5 15 7.899 142.6 70 1.5 15 7.891 142.6 70 1.5 15 7.892 143.4 45 1.5 14 7.893 144.6 70 1.5 15 7.894 142.6 70 1.5 15 7.895 142.6 70 1.5 15 7.897 142.6 70 1.5 15 7.898 142.6 70 1.5 15 7.899 142.6 70 1.5 15 7.899 143.6 144.6 15 15 7.890 144.6 15 15 7.891 144.6 15 15 7.891 144.6 15 15 7.891 144.6 15 15 7.891 144.6 15 15 7.891 144.6 15 15 7 | | | | | | 33 |
| 6.691 | | | | | | 45 |
| 6.739 | 6.678 | | 68.6 | 75 | 1.5 | 47 |
| 6.770 68.6 65 1.5 41 6.783 58.1 80 1.5 42 6.794 68.6 77 1.5 42 6.807 844.8 60 1.5 46 6.967 89.8 60 1.5 45 6.984 137.3 73 1.5 7.010 42.2 80 1.5 75 7.018 116.2 73 1.5 7.040 274.6 62 1.5 7.092 126.7 56 1.5 7.116 132.0 73 1.5 88.7 7.141 126.7 78 1.5 7.155 311.5 64 1.5 7.195 311.5 64 1.5 7.254 21.1 88 1.5 7.258 121.4 72 1.5 7.321 279.8 84 1.5 7.321 279.8 84 1.5 7.321 279.8 84 1.5 7.374 169.0 74 1.5 7.406 110.9 94 1.5 7.479 211.2 101 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.510 159 159 7.511 150 150 7.512 150 150 7.513 150 150 7.514 150 150 7.515 150 150 7.516 150 150 7.517 150 150 7.518 150 150 7.519 158.4 80 1.5 7.519 158.4 80 1.5 7.510 150 150 7.511 150 150 7.512 150 150 7.513 150 150 7.514 150 150 7.515 150 150 7.516 150 150 7.517 150 150 7.518 150 150 7.519 150 150 7.510 150 150 7.511 150 150 7.512 150 150 7.513 150 150 7.514 150 150 7.515 150 150 7.516 150 150 7.517 150 150 7.518 150 150 7.519 150 150 7.510 150 150 7.510 150 150 7.511 150 150 7.511 150 150 7.512 150 150 7.513 150 150 7.514 150 150 7.515 150 150 7.516 150 150 7.517 150 150 7.518 150 150 7.519 150 150 7.510 150 150 7.510 150 150 7.510 150 150 7.510 150 150 7.510 150 150 7.510 150 | | | 253.4 | 65 | 1.5 | 151 |
| 6.783 | | | | | | 92 |
| 6.794 68.6 77 1.5 48 6.807 844.8 60 1.5 46 6.967 89.8 60 1.5 45 6.984 137.3 73 1.5 92 7.010 42.2 80 1.5 31 7.018 116.2 73 1.5 73 7.040 274.6 62 1.5 15 7.092 126.7 56 1.5 66 7.116 132.0 73 1.5 99 7.141 126.7 78 1.5 99 7.141 126.7 78 1.5 99 7.145 158.4 66 1.5 99 7.195 311.5 64 1.5 18 7.254 21.1 88 1.5 17 7.258 121.4 72 1.5 80 7.281 21.1 76 1.5 15 7.321 279.8 84 1.5 15 7.321 279.8 84 1.5 21 7.374 169.0 74 1.5 11 7.406 110.9 94 1.5 90 7.427 274.6 90 1.5 22 7.479 211.2 101 1.5 19 7.519 155.4 80 1.5 15 7.591 232.3 74 1.5 20 7.591 232.3 74 1.5 20 7.591 232.3 74 1.5 30 7.754 89.8 80 1.5 15 7.867 322.1 60 1.5 30 7.754 89.8 80 1.5 15 7.754 89.8 80 1.5 15 7.754 89.8 80 1.5 15 7.755 160 1.5 12 7.754 89.8 80 1.5 15 7.877 327.4 46 1.5 19 7.878 142.6 70 1.5 90 7.877 327.4 46 1.5 12 7.897 247.4 46 1.5 13 7.897 227.0 60 1.5 17 7.897 227.0 60 1.5 17 7.897 227.0 60 1.5 17 7.897 227.0 60 1.5 17 7.897 327.4 46 1.5 13 7.897 227.0 60 1.5 17 7.897 327.4 46 1.5 15 7.897 327.4 46 1.5 13 7.898 1.5 14 89.8 80 1.5 66 80 1.5 10 80 Skyline Ent 33 65 1.5 20 80 Skyline Ent 33 65 1.5 20 80 Skyline Ent 33 65 1.5 20 80 Skyline Ent 34 45 1.5 14 80 Skyline Ent 34 45 1.5 15 81 10 10 10 10 10 81 10 10 10 10 82 10 10 10 10 83 10 10 10 84 10 10 10 85 10 10 10 85 10 10 10 85 10 10 10 85 10 10 10 85 10 10 10 85 10 10 10 85 10 10 10 85 10 10 10 85 10 10 10 85 10 10 10 85 10 10 10 85 10 10 10 85 | | | | | + | |
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| 6.984 137.3 73 1.5 92 7.010 42.2 80 1.5 37 7.018 116.2 73 1.5 78 7.040 274.6 62 1.5 15 7.092 126.7 56 1.5 65 7.195 132.0 73 1.5 88 7.141 126.7 78 1.5 99 7.195 311.5 64 1.5 18 7.254 21.1 88 1.5 17 7.258 121.4 72 1.5 88 7.281 21.1 76 1.5 15 7.285 190.1 86 1.5 15 7.321 279.8 84 1.5 21 7.374 169.0 74 1.5 94 7.427 274.6 90 1.5 22 7.479 211.2 101 1.5 19 7.549 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | | | | | | |
| 7.010 | | | | | | |
| 7.018 | | | | | | 31 |
| 7.040 | | | | | | 78 |
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| 7.116 | | | | | | 65 |
| 7.165 158.4 66 1.5 96 7.195 311.5 64 1.5 18 7.254 21.1 88 1.5 17 7.258 121.4 72 1.5 86 7.281 21.1 76 1.5 15 7.285 190.1 86 1.5 15 7.321 279.8 84 1.5 21 7.374 169.0 74 1.5 11 7.406 110.9 94 1.5 99 7.427 274.6 90 1.5 22 7.479 211.2 101 1.5 19 7.519 158.4 80 1.5 11 7.549 221.8 100 1.5 20 7.591 232.3 74 1.5 15 7.635 322.1 60 1.5 17 7.696 306.2 74 1.5 20 7.754 </td <td>7.116</td> <td></td> <td></td> <td>73</td> <td>1.5</td> <td>88</td> | 7.116 | | | 73 | 1.5 | 88 |
| 7.195 311.5 64 1.5 18 7.254 21.1 88 1.5 17 7.258 121.4 72 1.5 80 7.281 21.1 76 1.5 15 7.285 190.1 86 1.5 15 7.285 190.1 86 1.5 15 7.321 279.8 84 1.5 21 7.374 169.0 74 1.5 11 7.406 110.9 94 1.5 96 7.427 274.6 90 1.5 22 7.479 211.2 101 1.5 19 7.519 158.4 80 1.5 11 7.549 221.8 100 1.5 20 7.591 232.3 74 1.5 15 7.635 322.1 60 1.5 17 7.696 306.2 74 1.5 20 7.754 89.8 80 1.5 66 7.771 190.1 50 1.5 87 7.807 227.0 60 1.5 12 7.885 142.6 70 1.5 99 7.887 327.4 46 1.5 13 7.939 44 1.5 Shorthill Ln 25 41 1.5 9 Kroger Ent 24 45 1.5 14 Kroger Ent 24 45 1.5 14 Skyline Ent 34 45 1.5 15 Skyline Ent 34 45 1.5 15 Skyline Ent 34 45 1.5 16 Skyline Ent 34 45 1.5 16 Skyline Ent 34 45 1.5 16 Skyline Ent 34 45 1.5 17 Dixie HS Exit 18 44 1.5 7 Dixie HS Exit 18 44 1.5 7 Dixie HS Exit 18 44 1.5 7 Sent Towne Center 20 45 1.5 15 Sent Towne Center 20 45 1.5 15 Sent Towne Center 20 45 1.5 1.5 Sent Towne Center 40 45 1.5 1.5 | | | | 78 | | 91 |
| 7.254 | | | | | | 96 |
| 7.258 121.4 72 1.5 86 7.281 21.1 76 1.5 15 7.285 190.1 86 1.5 15 7.321 279.8 84 1.5 21 7.374 169.0 74 1.5 11 7.406 110.9 94 1.5 96 7.427 274.6 90 1.5 22 7.479 211.2 101 1.5 19 7.519 158.4 80 1.5 19 7.549 221.8 100 1.5 20 7.591 232.3 74 1.5 15 7.635 322.1 60 1.5 17 7.696 306.2 74 1.5 20 7.754 89.8 80 1.5 60 7.754 89.8 80 1.5 60 7.807 227.0 60 1.5 12 7.807 <td></td> <td></td> <td></td> <td></td> <td>+</td> <td>183</td> | | | | | + | 183 |
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| 7.285 190.1 86 1.5 15 7.321 279.8 84 1.5 21 7.374 169.0 74 1.5 11 7.406 110.9 94 1.5 96 7.427 274.6 90 1.5 22 7.479 211.2 101 1.5 19 7.519 158.4 80 1.5 11 7.549 221.8 100 1.5 20 7.591 232.3 74 1.5 15 7.696 306.2 74 1.5 15 7.696 306.2 74 1.5 20 7.754 89.8 80 1.5 66 7.771 190.1 50 1.5 87 7.807 227.0 60 1.5 12 7.877 327.4 46 1.5 13 7.939 44 1.5 9 Kroger Ent 25 | | | | | | 80 |
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| 7.696 306.2 74 1.5 20 7.754 89.8 80 1.5 66 7.771 190.1 50 1.5 87 7.807 227.0 60 1.5 12 7.85 142.6 70 1.5 91 7.877 327.4 46 1.5 13 7.939 44 1.5 Shorthill Ln 25 41 1.5 9 Clover Ave 25 40 1.5 9 Kroger Ent 25 61 1.5 14 Kroger Ent 24 45 1.5 16 Skyline Ent 33 65 1.5 16 Skyline Ent 34 45 1.5 17 USPS Ent 34 45 1.5 17 USPS Ent 34 45 1.5 17 USPS Ent 34 45 1.5 16 Kenton Lands 22 83 1.5 14 Kenton Lands 22 83 1.5 17 Dixie HS Exit 18 44 1.5 7 Dixie HS Exit 18 44 1.5 7 Semont 35 46 1.5 21 Rosemont 35 46 1.5 15 Rosemont 35 46 1.5 15 RS Ent Towne Center 20 45 1.5 15 | 7.591 | | 232.3 | 74 | 1.5 | 158 |
| 7.754 89.8 80 1.5 66 7.7771 190.1 50 1.5 87 7.807 227.0 60 1.5 12 7.85 142.6 70 1.5 91 7.877 327.4 46 1.5 13 7.939 44 1.5 Shorthill Ln 25 41 1.5 9 Clover Ave 25 40 1.5 14 Kroger Ent 25 61 1.5 14 Kroger Ent 24 45 1.5 14 Skyline Ent 33 65 1.5 20 Skyline Ent 34 45 1.5 14 Montgomery 42 43 1.5 17 USPS Ent 34 45 1.5 17 USPS Ent 34 45 1.5 17 Kenton Lands 22 83 1.5 17 Dixie HS Exit 18 44 1.5 7 Dixie HS Exit 30 36 1.5 10 Edgewood 54 67 1.5 33 Summit 43 54 1.5 21 Rosemont 35 46 1.5 26 S Ent Towne Center 20 45 1.5 8 | 7.635 | | 322.1 | 60 | 1.5 | 177 |
| 7.771 | | | | | | 208 |
| 7.807 227.0 60 1.5 12 7.85 142.6 70 1.5 91 7.877 327.4 46 1.5 13 7.939 44 1.5 13 Shorthill Ln 25 41 1.5 9 Clover Ave 25 40 1.5 9 Kroger Ent 25 61 1.5 14 Kroger Ent 24 45 1.5 10 Skyline Ent 33 65 1.5 20 Skyline Ent 34 45 1.5 14 Montgomery 42 43 1.5 17 USPS Ent 33 65 1.5 20 USPS Ent 34 45 1.5 14 Kenton Lands 22 83 1.5 17 Dixie HS Exit 18 44 1.5 7 Dixie HS Exit 30 36 1.5 10 | | | | | + | 66 |
| 7.85 142.6 70 1.5 91 7.877 327.4 46 1.5 13 7.939 44 1.5 13 Shorthill Ln 25 41 1.5 9 Clover Ave 25 40 1.5 9 Kroger Ent 25 61 1.5 14 Kroger Ent 24 45 1.5 10 Skyline Ent 33 65 1.5 20 Skyline Ent 34 45 1.5 17 USPS Ent 33 65 1.5 20 USPS Ent 33 65 1.5 20 USPS Ent 34 45 1.5 14 Kenton Lands 22 83 1.5 17 Dixie HS Exit 18 44 1.5 7 Dixie HS Exit 30 36 1.5 10 Edgewood 54 67 1.5 33 | | | | | | |
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| Clover Ave 25 40 1.5 9 Kroger Ent 25 61 1.5 14 Kroger Ent 24 45 1.5 16 Skyline Ent 33 65 1.5 20 Skyline Ent 34 45 1.5 14 Montgomery 42 43 1.5 17 USPS Ent 33 65 1.5 22 USPS Ent 34 45 1.5 14 Kenton Lands 22 83 1.5 17 Dixie HS Exit 18 44 1.5 7 Dixie HS Exit 30 36 1.5 10 Edgewood 54 67 1.5 33 Summit 43 54 1.5 21 Rosemont 35 46 1.5 15 S Ent Towne Center 20 45 1.5 15 S Ent Towne Center 40 45 1.5 17 | 1.000 | | | | 1.0 | |
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| Skyline Ent 34 45 1.5 14 Montgomery 42 43 1.5 17 USPS Ent 33 65 1.5 20 USPS Ent 34 45 1.5 14 Kenton Lands 22 83 1.5 17 Dixie HS Exit 18 44 1.5 7 Dixie HS Exit 30 36 1.5 10 Edgewood 54 67 1.5 33 Summit 43 54 1.5 21 Rosemont 35 46 1.5 15 S Ent Towne Center 20 45 1.5 8 S Ent Towne Center 40 45 1.5 17 | | Kroger Ent | 24 | 45 | 1.5 | 10 |
| Montgomery 42 43 1.5 17 USPS Ent 33 65 1.5 20 USPS Ent 34 45 1.5 14 Kenton Lands 22 83 1.5 17 Dixie HS Exit 18 44 1.5 7 Dixie HS Exit 30 36 1.5 10 Edgewood 54 67 1.5 33 Summit 43 54 1.5 21 Rosemont 35 46 1.5 15 S Ent Towne Center 20 45 1.5 8 S Ent Towne Center 40 45 1.5 17 | | | | | | 20 |
| USPS Ent 33 65 1.5 20 USPS Ent 34 45 1.5 14 Kenton Lands 22 83 1.5 17 Dixie HS Exit 18 44 1.5 7 Dixie HS Exit 30 36 1.5 10 Edgewood 54 67 1.5 33 Summit 43 54 1.5 21 Rosemont 35 46 1.5 15 S Ent Towne Center 20 45 1.5 8 S Ent Towne Center 40 45 1.5 17 | | • | | | | 14 |
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| Summit 43 54 1.5 21 Rosemont 35 46 1.5 15 S Ent Towne Center 20 45 1.5 8 S Ent Towne Center 40 45 1.5 17 | | | | | + | 33 |
| Rosemont 35 46 1.5 15 S Ent Towne Center 20 45 1.5 8 S Ent Towne Center 40 45 1.5 17 | | • | | | + | 21 |
| S Ent Towne Center 40 45 1.5 17 | | Rosemont | 35 | 46 | 1.5 | 15 |
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Kenton County Base Failure Repair Summary FD05 059 0025 006-008

| | ; | Total | 85.00 | Patch | | |
|-----------|--------|-------|-------|--------|-----------|---|
| Milepoint | Length | Width | SQYD | Number | Direction | LOCATION NOTES |
| 9.608 | 7 | 5 | 3.89 | 1 | NB | Skyline Entrance Right turn from NB M/L |
| 809'9 | 10 | 7 | 7.78 | 2 | NB | Skyline Entrance Right turn from NB M/L |
| 9.608 | 20 | 9 | 13.33 | 3 | NB | Skyline Entrance Right turn from NB M/L |
| | | | | | | |
| 6.608 | 22 | 4 | 12.00 | 4 | SB | Kroger Entrance Right turn from SB M/L |
| | | | | | | |
| 6.815 | 6 | 8 | 8.00 | 2 | SB | Kentonlands Entrance Rt turn from SB M/L |
| | | | | | | |
| 7.002 | 8 | 5 | 4.44 | 9 | SB | SB M/L in Lt side of Lt Lane in front of KFC |
| | | | | | | |
| 7.256 | 12 | 9 | 8.00 | 7 | SB | SB M/L in Lt side of Lt Lane at S Mall Center Blvd entr |
| | | | | | | |
| 7.715 | 11 | 7 | 8.56 | 8 | SB | SB M/L between Center and Left lane |
| | | | | | | |
| 7.766 | 12 | 8 | 10.67 | 6 | SB | In turn lane to WB 275 ramp between NB & SB at s nose of |
| | | | | | | median |
| | | | | | | |
| | | | 7.70 | | | 10% for use in Misc locations to be used as direct by Engr. |
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TYPICAL SECTION FD05 059 0025 006-008 KENTON COUNTY

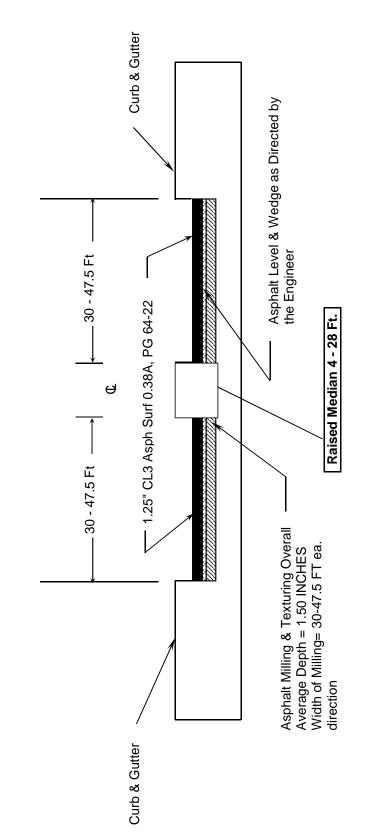




FD05 059 0025 006-008 KENTON COUNTY **TYPICAL SECTION**

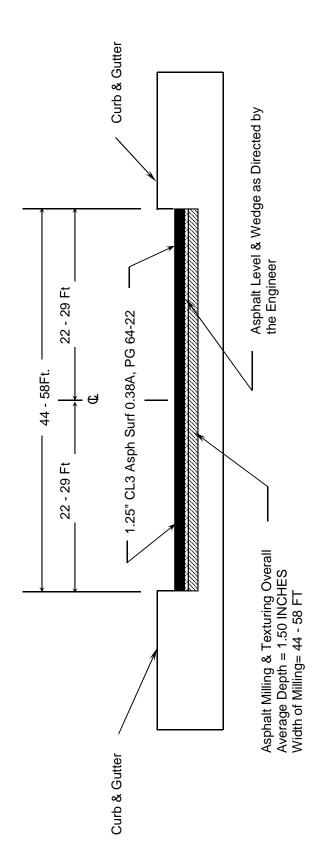


MP 7.276 - 7.890



TYPICAL SECTION FD05 059 0025 006-008 KENTON COUNTY

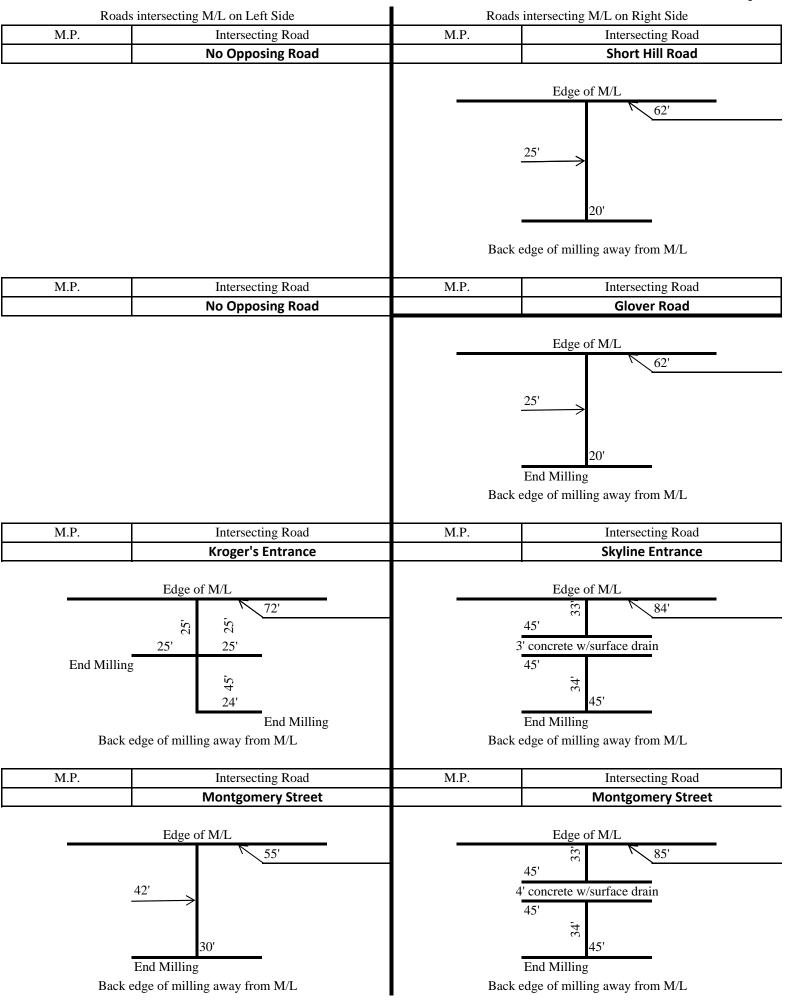




KENTON COUNTY 059GR16P087-FD05 & FE01

Milling limits on Intersecting Roads to US 25

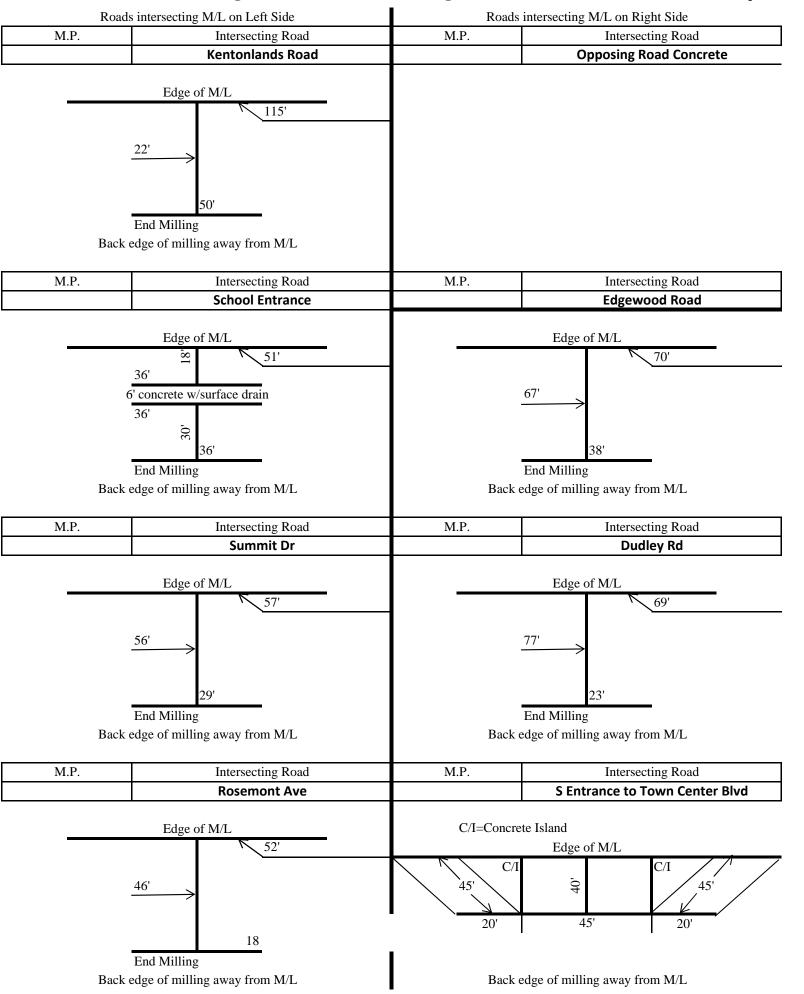
Contract ID: 162163 Page 54 of 113



KENTON COUNTY 059GR16P087-FD05 & FE01

Milling limits on Intersecting Roads to US 25

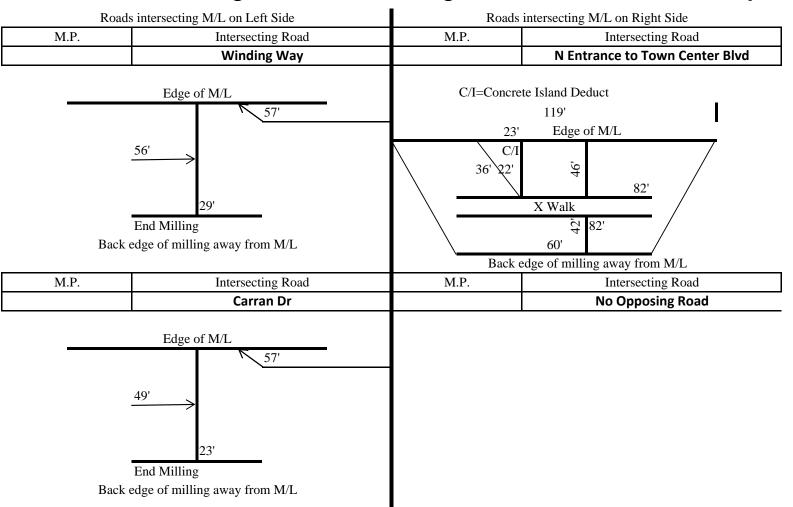
Contract ID: 162163 Page 55 of 113



KENTON COUNTY 059GR16P087-FD05 & FE01

Milling limits on Intersecting Roads to US 25

Contract ID: 162163 Page 56 of 113



PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications* for Road and Bridge Construction and Standard Drawings are superseded by Standard Specifications for Road and Bridge Construction, Edition of 2012 and Standard Drawings, Edition of 2016.

| Subsection | 101.03 DEFINITIONS |
|--------------------|--|
| Revision: | Add the following Definitions to this section: |
| ACVISION. | Superpave Mix Design Technologist (SMDT) - An inspector qualified by the KYTC to |
| | submit, adjust, or approve asphalt mix designs. |
| | such in the second seco |
| | Superpave Plant Technologist (SPT) - An inspector qualified by the KYTC to perform |
| | routine inspection and process control, acceptance, or verification testing on asphalt mixtures. |
| Subsection: | 102.15 Process Agent. |
| Revision: | Replace the 1st paragraph with the following: |
| | Every corporation doing business with the Department shall submit evidence of compliance |
| | with KRS Sections 14A.4-010, 271B.11-010, 271B.11-070, 271B.11-080, 271B.5-010 and |
| | 271B.16-220, and file with the Department the name and address of the process agent upon |
| | whom process may be served. |
| Subsection: | 105.13 Claims Resolution Process. |
| Revision: | Delete all references to TC 63-34 and TC 63-44 from the subsection as these forms are no |
| | longer available through the forms library and are forms generated within the AASHTO |
| | SiteManager software. |
| Subsection: | 108.01 Subcontracting of Contract. |
| Revision: | Replace the section with the following: |
| | Do not subcontract, sell, transfer, assign, or otherwise dispose of the Contract or any portion of |
| | the Contract or Contracts, or of the right, title, or interest therein, without the Engineer's |
| | written consent. If the Contractor chooses to subcontract any portion of the Contract, a written |
| | request to sublet work must be submitted on the Subcontract Request (TC 63-35) form for the |
| | Engineer's approval. When directed by the Engineer, submit a certified copy of the actual |
| | subcontract agreement executed between the parties. |
| | The Engineer will allow the Contractor to subcontract a portion, but the Contractor must |
| | perform with his own organization work amounting to no less than 30 percent of the total |
| | Contract cost. The Engineer will not allow any subcontractor to exceed the percentage to be |
| | performed by the Contractor and will require the Contractor to maintain a supervisory role over |
| | the entire project. |
| | Do not allow any subcontractor to further subcontract any portion of the work without |
| | obtaining written consent from the Engineer. When the Engineer gives such consent, the first |
| | tier subcontractor may further subcontract a portion of his work not to exceed 50 percent of the |
| | work originally subcontracted to him by the Contractor. Do not allow any second tier |
| | subcontractor to subcontract any portion of the work. |
| | * * |
| | Extra work performed by subcontractors in accordance with Section 109 will not be utilized in |
| | the computation of total dollar amount subcontracted. Subcontract percentages are based upon |
| | the original contract amount. |
| | Payment to subcontractors for satisfactory performance of their work or materials supplied must |
| | be made within 7 calendar days from receipt of payment from the Engineer. Upon request by |
| | the Engineer, provide proof that payment has been made to the subcontractor within the 7 |
| | calendar days. Progress payments may be withheld for failure to comply with this request |
| | |

The Engineer's written consent to subcontract, assign, or otherwise dispose of any portion of the Contract does not, under any circumstances, relieve the Contractor or the surety of their respective liabilities and obligations under the Contract. The Engineer will make transactions only with the Contractor. The Engineer will recognize subcontractors only in the similar capacity of employees or workers of the Contractor who are subject to the same requirements as to character and competence as specified in Subsection 108.06.

Lease agreements are acceptable on Department projects. No additional paperwork is needed when equipment is rented from a commercial rental company unless the leased equipment comes with an operator. In these circumstances, payroll records for the operator of the leased equipment must be maintained and submitted by the contractor in accordance with Department policy.

Lease agreements between contractors that involve equipment only will require the submittal of a TC 63-71 Department Equipment Rental Form. If a Contractor is found to be in violation of these requirements, the Engineer reserves the right to withhold payment for the work which was performed in violation of these requirements. This provision does not include the lease or use of equipment from a corporation or company wholly owned by the Contractor. The Contractor shall not use equipment in the performance of the Contract to which title is not held by the Contractor or an approved subcontractor without a submitted lease agreement.

If a public official has provided a documented Declaration of Emergency, then the Engineer may verbally waive the requirement of submitting a TC 63-71 Department Equipment Rental Form until the situation has ended. After the emergency situation ends, immediately remove the equipment from the project or submit a completed TC 63-71 Department Equipment Rental Form to the Engineer.

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108.03 Preconstruction Conference.

Revision:

Replace 8) Staking with the following:

8) Staking (designated by a Professional Engineer or Land Surveyor licensed in the Commonwealth of Kentucky.

Subsection:

109.07.02 Fuel.

Revision:

Revise item Crushed Aggregate Used for Embankment Stabilization to the following:

Crushed Aggregate

Used for Stabilization of Unsuitable Materials

Used for Embankment Stabilization

Delete the following item from the table.

Crushed Sandstone Base (Cement Treated)

Subsection:

110.02 Demobilization

Revision:

Replace the first part of the first sentence of the second paragraph with the following:

Perform all work and operations necessary to accomplish final clean-up as specified in the first

paragraph of Subsection 105.12;

Subsection:

112.03.12 Project Traffic Coordinator (PTC).

Revision:

Replace the last paragraph of this subsection with the following:

Ensure the designated PTC has sufficient skill and experience to properly perform the task assigned and has successfully completed the qualification courses.

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| Cubacations | 112.04.18 Diversions (By-Pass Detours). |
|-------------|--|
| Revision: | Insert the following sentence after the 2nd sentence of this subsection. |
| Kevision: | The Department will not measure temporary drainage structures for payment when the contract |
| | documents provide the required drainage opening that must be maintained with the diversion. |
| | The temporary drainage structures shall be incidental to the construction of the diversion. If the |
| | 1 1 |
| | contract documents fail to provide the required drainage opening needed for the diversion, the |
| | cost of the temporary drainage structure will be handled as extra work in accordance with |
| G 1 4 | section 109.04. |
| | 201.03.01 Contractor Staking. |
| Revision: | Replace the first paragraph with the following: Perform all necessary surveying under the |
| | general supervision of a Professional Engineer or Land Surveyor licensed in the |
| | Commonwealth of Kentucky. |
| | 201.04.01 Contractor Staking. |
| Revision: | Replace the last sentence of the paragraph with the following: Complete the general layout of |
| | the project under the supervision of a Professional Engineer or Land Surveyor licensed in the |
| | Commonwealth of Kentucky. |
| | 206.04.01 Embankment-in-Place. |
| Revision: | Replace the fourth paragraph with the following: The Department will not measure suitable |
| | excavation included in the original plans that is disposed of for payment and will consider it |
| | incidental to Embankment-in-Place. |
| | 208.02.01 Cement. |
| Revision: | Replace paragraph with the following: |
| | Select Type I or Type II cement conforming to Section 801. Use the same type cement |
| | throughout the work. |
| | 208.03.06 Curing and Protection. |
| Revision: | Replace the fourth paragraph with the following: |
| | Do not allow traffic or equipment on the finished surface until the stabilized subgrade has |
| | cured for a total of 7-days with an ambient air temperature above 40 degrees Fahrenheit. A |
| | curing day consists of a continuous 24-hour period in which the ambient air temperature does |
| | not fall below 40 degrees Fahrenheit. Curing days will not be calculated consecutively, but |
| | must total seven (7), 24-hour days with the ambient air temperature remaining at or above 40 |
| | degrees Fahrenheit before traffic or equipment will be allowed to traverse the stabilized |
| | subgrade. The Department may allow a shortened curing period when the Contractor requests. |
| | The Contractor shall give the Department at least 3 day notice of the request for a shortened |
| | curing period. The Department will require a minimum of 3 curing days after final compaction. |
| | The Contractor shall furnish cores to the treated depth of the roadbed at 500 feet intervals for |
| | each lane when a shortened curing time is requested. The Department will test cores using an |
| | unconfined compression test. Roadbed cores must achieve a minimum strength requirement of |
| | 80 psi. |
| | |
| | 208.03.06 Curing and Protection. |
| Revision: | Replace paragraph eight with the following: |
| | At no expense to the Department, repair any damage to the subgrade caused by freezing. |
| | |

| Subsection: | 212.03.03 Permanent Seeding and Protection. | | | | |
|--------------------|---|--|--|--|--|
| Part: | A) Seed Mixtures for Permanent Seeding. | | | | |
| Revision: | Revise Seed Mix Type I to the mixture shown below: | | | | |

50% Kentucky 31 Tall Fescue (Festuca arundinacea) 35% Hard Fescue (Festuca (Festuca longifolia)

10% Ryegrass, Perennial (Lolium perenne) 5% White Dutch Clover (Trifolium repens)

Subsection: 212.03.03 Permanent Seeding and Protection. A) Seed Mixtures for Permanent Seeding. Part:

Number:

Revision: Replace the paragraph with the following:

> Permanent Seeding on Slopes Greater than 3:1 in Highway Districts 4, 5, 6, and 7. Apply seed mix Type II at a minimum application rate of 100 pounds per acre. If adjacent to a golf course replace the crown vetch with Kentucky 31 Tall Fescue.

Subsection: 212.03.03 Permanent Seeding and Protection. Part: A) Seed Mixtures for Permanent Seeding.

Number:

Revision: Replace the paragraph with the following:

> Permanent Seeding on Slopes Greater than 3:1 in Highway Districts 1, 2, 3, 8, 9, 10, 11, and 12. Apply seed mix Type III at a minimum application rate of 100 pounds per acre. If adjacent to crop land or golf course, replace the Sericea Lespedeza with Kentucky 31 Fescue.

Subsection: 212.03.03 Permanent Seeding and Protection. Part: B) Procedures for Permanent Seeding.

Delete the first sentence of the section. **Revision:**

Subsection: 212.03.03 Permanent Seeding and Protection.

Part: B) Procedures for Permanent Seeding.

Replace the second and third sentence of the section with the following: **Revision:**

> Prepare a seedbed and apply an initial fertilizer that contains a minimum of 100 pounds of nitrogen, 100 pounds of phosphate, and 100 pounds of potash per acre. Apply agricultural limestone to the seedbed when the Engineer determines it is needed. When required, place agricultural limestone at a rate of 3 tons per acre.

Subsection: 212.03.03 Permanent Seeding and Protection. Part: D) Top Dressing.

Revision: Change the title of part to D) Fertilizer.

Subsection: 212.03.03 Permanent Seeding and Protection.

Part: D) Fertilizer.

Revision: Replace the first paragraph with the following:

> Apply fertilizer at the beginning of the seeding operation and after vegetation is established. Use fertilizer delivered to the project in bags or bulk. Apply initial fertilizer to all areas prior to the seeding or sodding operation at the application rate specified in 212.03.03 B). Apply 20-10-10 fertilizer to the areas after vegetation has been established at a rate of 11.5 pounds per 1,000 square feet. Obtain approval from the Engineer prior to the 2nd fertilizer application. Reapply fertilizer to any area that has a streaked appearance. The reapplication shall be at no additional cost to the Department. Re-establish any vegetation severely damaged or destroyed because of an excessive application of fertilizer at no cost to the Department.

Subsection: 212.03.03 Permanent Seeding and Protection.

Part: D) Fertilizer.

Revision: Delete the second paragraph.

| Subsections | 212.04.04 Agricultural Limestone. | | | | | |
|-----------------------|--|--|--|--|--|--|
| Revision: | Replace the entire section with the following: | | | | | |
| Kevision. | The Department will measure the quantity of agricultural limestone in tons. | | | | | |
| Subsection: | 212.04.05 Fertilizer. | | | | | |
| Revision: | Replace the entire section with the following: | | | | | |
| Kevision: | The Department will measure fertilizer used in the seeding or sodding operations for payment. | | | | | |
| | The Department will measure the quantity by tons. | | | | | |
| Subsection: | 212.05 PAYMENT. | | | | | |
| Revision: | Delete the following item code: | | | | | |
| Kevision: | Code Pay Item Pay Unit | | | | | |
| | 05966 Topdressing Fertilizer Ton | | | | | |
| Subsection: | 212.05 PAYMENT. | | | | | |
| Revision: | Add the following pay items: | | | | | |
| KCVISIOII. | Code Pay Item Pay Unit | | | | | |
| | 05963 Initial Fertilizer Ton | | | | | |
| | 05964 20-10-10 Fertilizer Ton | | | | | |
| | 05992 Agricultural Limestone Ton | | | | | |
| Subsection: | 213.03.02 Progress Requirements. | | | | | |
| Revision: | | | | | | |
| | | | | | | |
| | | | | | | |
| | Replace the third paragraph with the following: | | | | | |
| | After exposing areas of erodible material, make every effort to stabilize and protect the areas as | | | | | |
| | quickly as possible. Permanently seed and mulch all areas at final grade within 14 days. | | | | | |
| | Temporary stabilization practices on those portions of the project where construction activities | | | | | |
| | have temporarily ceased shall be initiated within 14 days of the date of activity cessation. The | | | | | |
| | Engineer will suspend grading operations for instances where the Contractor fails to sustain | | | | | |
| | erosion control measures to effectively control erosion and to prevent water pollution in | | | | | |
| | accordance with the KPDES Permit. In addition, the Engineer will withhold monies due on | | | | | |
| | current estimates until corrective work has been initiated and is continuously progressing to | | | | | |
| | remediate noted deficiencies. Additionally, should noted deficiencies not be adequately | | | | | |
| | addressed to the satisfaction of the Engineer within 7 calendar days of receipt of written | | | | | |
| | notification of deficiencies, the Department will apply a penalty equal to the daily liquidated | | | | | |
| G 1 4 | damages rate until all aspects of the work have been completed. | | | | | |
| | 213.03.05 Temporary Control Measures. | | | | | |
| Part: | E) Temporary Seeding and Protection. | | | | | |
| Revision: | Delete the second sentence of the first paragraph. | | | | | |
| Subsection: Table: | 304.02.01 Physical Properties. | | | | | |
| Revision: | Required Geogrid Properties Replace all references to Test Method "GRI-GG2-87" with ASTM D 7737. | | | | | |
| Subsection: | 402.03.02 Contractor Quality Control and Department Acceptance. | | | | | |
| Part: | B) Sampling. | | | | | |
| Revision: | Replace the second sentence with the following: | | | | | |
| IXC VISIUII. | The Department will determine when to obtain the quality control samples using the random- | | | | | |
| | number feature of the mix design submittal and approval spreadsheet. The Department will | | | | | |
| | randomly determine when to obtain the verification samples required in Subsections 402.03.03 | | | | | |
| | and 402.03.04 using the Asphalt Mixture Sample Random Tonnage Generator. | | | | | |
| 1 | | | | | | |

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Supplemental Specifications to the Standard Specifications for Road and Bridge Construction, 2012 Edition Effective with the April 29, 2016 Letting

Subsection: 402.03.02 Contractor Quality Control and Department Acceptance.

Part: D) Testing Responsibilities.

3) VMA. Number:

Revision: Add the following paragraph below Number 3) VMA:

> Retain the AV/VMA specimens and one additional corresponding G_{mm} sample for 5 working days for mixture verification testing by the Department. For Specialty Mixtures, retain a mixture sample for 5 working days for mixture verification testing by the Department. When the Department's test results do not verify that the Contractor's quality control test results are within the acceptable tolerances according to Subsection 402.03.03, retain the samples and specimens from the affected sublot(s) for the duration of the project.

Subsection: 402.03.02 Contractor Quality Control and Department Acceptance.

D) Testing Responsibilities. Part:

4) Density. Number:

Revision: Replace the second sentence of the Option A paragraph with the following:

Perform coring by the end of the following work day.

Subsection: 402.03.02 Contractor Quality Control and Department Acceptance.

D) Testing Responsibilities. Part:

Number: 5) Gradation.

Revision: Delete the second paragraph.

Subsection: 402.03.02 Contractor Quality Control and Department Acceptance.

H) Unsatisfactory Work. Part: 1) Based on Lab Data. Number:

Replace the second paragraph with the following: **Revision:**

> When the Engineer determines that safety concerns or other considerations prohibit an immediate shutdown, continue work and the Department will make an evaluation of acceptability according to Subsection 402.03.05.

402.03.03 Verification. **Subsection:**

Replace the first paragraph with the following: Revision:

> **402.03.03 Mixture Verification.** For volumetric properties, the Department will perform a minimum of one verification test for AC, AV, and VMA according to the corresponding procedures as given in Subsection 402.03.02. The Department will randomly determine when to obtain the verification sample using the Asphalt Mixture Sample Random Tonnage Generator. For specialty mixtures, the Department will perform one AC and one gradation determination per lot according to the corresponding procedures as given in Subsection 402.03.02. However, Department personnel will not perform AC determinations according to KM 64-405. The Contractor will obtain a quality control sample at the same time the Department obtains the mixture verification sample and perform testing according to the procedures given in Subsection 402.03.02. If the Contractor's quality control sample is verified by the Department's test results within the tolerances provided below, the Contractor's sample will serve as the quality control sample for the affected sublot. The Department may perform the mixture verification test on the Contractor's equipment or on the Department's equipment.

Subsection: 402.03.03 Verification.

A) Evaluation of Sublot(s) Verified by Department. Part:

Revision: Replace the third sentence of the second paragraph with the following:

> When the paired t-test indicates that the Contractor's data and Department's data are possibly not from the same population, the Department will investigate the cause for the difference according to Subsection 402.03.05 and implement corrective measures as the Engineer deems appropriate.

| Subsection: 402.03.03 Verification | | | | | | | |
|--|--|--|--|--|--|--|--|
| Part: B) Evaluation of Sublo | ots Not Verified by Department. | | | | | | |
| Revision: Replace the third sente | nce of the first paragraph with the following: | | | | | | |
| When differences betw | veen test results are not within the tolerances listed below, the | | | | | | |
| | re the discrepancy according to Subsection 402.03.05. | | | | | | |
| Subsection: 402.03.03 Verification | | | | | | | |
| Part: B) Evaluation of Sublo | ots Not Verified by Department. | | | | | | |
| | nce of the second paragraph with the following: | | | | | | |
| • | est indicates that the Contractor's data and Department's data are possibly | | | | | | |
| not from the same pop | ulation, the Department will investigate the cause for the difference | | | | | | |
| according to Subsection | n 402.03.05 and implement corrective measures as the Engineer deems | | | | | | |
| appropriate. | | | | | | | |
| Subsection: 402.03.03 Verification | | | | | | | |
| Part: C) Test Data Patterns. | • | | | | | | |
| · / | ntence with the following: | | | | | | |
| * | e substantial differences between the verified and non-verified sublots, | | | | | | |
| _ | erform further comparative testing according to subsection 402.03.05. | | | | | | |
| Subsection: 402.03 CONSTRUCT | · · · · · · · · · · · · · · · · · · · | | | | | | |
| | section: 402.03.04 Testing Equipment and Technician Verification. | | | | | | |
| \mathcal{E} | nimum quantity of 20,000 tons and for every 20,000 tons thereafter, the | | | | | | |
| | an additional verification sample at random using the Asphalt Mixture | | | | | | |
| _ | age Generator in order to verify the integrity of the Contractor's and | | | | | | |
| * | ry testing equipment and technicians. The Department will obtain a | | | | | | |
| _ | | | | | | | |
| _ | mixture sample of at least 150 lb at the asphalt mixing plant according to KM 64-425 and split it according to AASHTO R 47. The Department will retain one split portion of the sample and | | | | | | |
| | provide the other portion to the Contractor. At a later time convenient to both parties, the | | | | | | |
| | Department and Contractor will simultaneously reheat the sample to the specified compaction | | | | | | |
| _ | e mixture for AV and VMA using separate laboratory equipment | | | | | | |
| 1 - | ponding procedures given in Subsection 402.03.02. The Department | | | | | | |
| | ences in test results between the two laboratories. When the difference | | | | | | |
| | AV or VMA is not within ± 2.0 percent, the Department will investigate | | | | | | |
| | pancy according to Subsection 402.03.05. | | | | | | |
| Subsection: 402.03.04 Dispute Res | · | | | | | | |
| Revision: Change the subsection | | | | | | | |
| Subsection: 402.05 PAYMENT. | | | | | | | |
| | chedule Compaction Option A Base and Binder Mixtures | | | | | | |
| Table: AC | | | | | | | |
| Revision: Replace the Deviation | from JMF(%) that corresponds to a Pay Value of 0.95 to ±0.6. | | | | | | |
| Subsection: 403.01 Description. | | | | | | | |
| * | hree and four of the first paragraph with the following: | | | | | | |
| | lant Technologist (SPT) or Superpave Mix Design Technician (SMDT) | | | | | | |
| qualified by the Labor | | | | | | | |
| Control concerns arigin | atories' Quality Acceptance program. Be available to address all Quality | | | | | | |
| Control Concerns arisin | atories' Quality Acceptance program. Be available to address all Quality and during work performed under section 403. | | | | | | |
| Subsection: 403.02.10 Material Tra | ng during work performed under section 403. unsfer Vehicle (MTV). | | | | | | |
| Subsection: 403.02.10 Material Tra Revision: Replace the first senter | ng during work performed under section 403. nnsfer Vehicle (MTV). nce with the following: | | | | | | |
| Subsection: 403.02.10 Material Tra Revision: Replace the first senter | ng during work performed under section 403. unsfer Vehicle (MTV). | | | | | | |

| Subsection: | 403.03.03 Preparation of Mixture |
|--------------------|--|
| Part: | C) Mix Design Criteria |
| Number: | 2) |
| Revision: | Revise part 2) to read as follows: Selection of Optimum AC. Normally, the Department will |
| RCVISIOII. | approve the AC at an air-void content of 4.0 percent. The Engineer may assign an AC |
| | corresponding to other air-void levels as deemed appropriate. Ensure the optimum AC is a |
| | minimum of 5.2 percent by weight of the total mixture for all 0.5-inch nominal surface |
| | mixtures and 5.5 percent by weight of the total mixture for all 0.38-inch nominal surface |
| | mixtures. |
| Subsection: | 412.02.09 Material Transfer Vehicle (MTV). |
| Revision: | Replace the paragraph with the following: |
| | Provide and utilize a MTV with the minimum characteristics outlined in section 403.02.10. |
| Subsection: | 412.03.07 Placement and Compaction. |
| Revision: | Replace the first paragraph with the following: |
| | Use a MTV when placing SMA mixture in the driving lanes. The MTV is not required on |
| | ramps and/or shoulders unless specified in the contract. When the Engineer determines the use |
| | of the MTV is not practical for a portion of the project, the Engineer may waive its requirement |
| | for that portion of pavement by a letter documenting the waiver. |
| Subsection: | 412.04 MEASUREMENT. |
| Revision: | Add the following subsection: |
| | 412.04.03. Material Transfer Vehicle (MTV). The Department will not measure the MTV for |
| | payment and will consider its use incidental to the asphalt mixture. |
| | 501.03.19 Surface Tolerances and Testing Surface. |
| Part: | B) Ride Quality. |
| Revision: | Add the following to the end of the first paragraph: |
| | The Department will specify if the ride quality requirements are Category A or Category B |
| | when ride quality is specified in the Contract. Category B ride quality requirements shall apply |
| | when the Department fails to classify which ride quality requirement will apply to the Contract. |
| Subsection: | 501.03.05 Weather Limitations and Protection. |
| Revision: | Replace the reference to Subsection 501.03.19 in Paragraph 5, with Subsection 501.03.20. |
| Subsection: | 601.02.02 Cement |
| Revision: | Replace the third sentence with the following: The Department will allow the use of Type |
| | IP(≤20), Type IS(≤30), Type IL, Type II, and Type III when the Engineer approves. |
| Subsection: | 601.02.02 Cement |
| Revision: | Replace the fifth sentence with the following: If unsatisfactory test results are obtained using |
| | Type IP(≤20), Type IS(≤30), Type IL, Type II, or Type III cement complete the work using |
| | Type I cement. |

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| | | | Effec | tive with th | e April 2 | 9, 2016 Let | ting |
|--------------------|--|----------------------------|-----------------------|---------------------|-----------------------|--------------------------|--------------------------------|
| Subsection: | 601.03.02 Concrete Producer Responsibilities. | | | | | | |
| Part: | E) Trip Tickets. | | | | | | |
| Revision: | | | n with the follow | /ing: | | | |
| | | | | | formation | shown in the | e table below. Certify that |
| | | - | _ | | | | proved mix design. |
| | | | nt manager or a | | | | |
| | | _ | _ | | | _ | nation on the back of the |
| | _ | - | te inspector win | complete al | i omer nec | essary inform | nation on the back of the |
| | trip t | icket. | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | Contract Id: | Proj. Number: | Date: | County: | | |
| | | Truck No: | Producer Name: | • | SiteManag | er Sample Id: | |
| | | Qty(Yds ³): | Time Loaded (Nor | n Agitated Con | crete Only): | : | |
| | | Begin Mixing T | • | AM PM _ | | | |
| | | Set Retarder U | | Yes | Туре | No | |
| | | Water Reduce | r Used | Yes | Type | No | |
| | | Water Underru | | Gal/Yd ³ | | tal Gallons | |
| | | Design W/C: | Actual W/C: | Slump (inche | | | |
| | | Batch Weight | | oranip (mem | , | | |
| | | | escription: Desi | gn Otv: Regi | uired: Bato | hed: %Var: | %Moisture: Actual: |
| | | | | | | | |
| | | | | | | | |
| | | Remarks: | | | | | |
| | | Kelliarks. | | | | | |
| | | | | | | | |
| | | *The data on t | his ticket is correc | t for the appr | oved concre | te miv decian | * |
| | | THE data off t | IIIS CICKEL IS COITEC | t for the appr | oved concre | te illix desigli. | |
| | | Signature: | | | | Date: | |
| | | Signature. | | | I t 1 1 | | |
| | | | KRMCA Level II Te | echnician or P | lant Manag | er | |
| | | | | | | | |
| | | | | | | | |
| | | _ | oning and Requ | irements | | | |
| Part: | A) C | Concrete | | | | | |
| Revision: | Revi | se Table for II | NGREDIENT PI | ROPORTIO | NS AND F | <mark>REQUIREMI</mark> | ENTS FOR VARIOUS |
| | CLA | SSES OF CO | NCRETE as foll | lows: Repla | ce "M1 w/ | Type 1 ceme | ent" with "M1 w/ Type 1 |
| | or bl | <mark>ended hydraul</mark> | ic cement" | | | | |
| Subsection: | 601.0 | 03.03 Proporti | oning and Requi | irements | | | |
| Part: | C) M | lixtures Using | Type IP, IS, and | d I(SM) Cen | nent or Min | neral Admixt | ures |
| Revision: | | _ | * * | | | |)), IS(≤30), and IL |
| | | * / | al Admixtures. | | C | <i>J</i> 1 ← | <i>,,</i> (– <i>,,</i> |
| Subsection: | | | | irements | | | |
| Part: | 601.03.03 Proportioning and Requirements C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures | | | | | | |
| Number: | 1) | inatures esting | 1 ypc 11 , 15, un | | ioni or ivin | iciai / taiiiixt | .di C5 |
| | / | sa first santan | ga to rand as fall | ovec: Type | D(<20) IS | (<20) II Co | mant |
| Revision: | | | ce to read as foll | | 11 (\(\sigma 20\), 13 | (<u>></u> 50), IL Ce | ment. |
| Subsection: | | | oning and Requi | | | 1 . 4 . 1 | |
| Part: | | lixtures Using | Type IP, IS, and | a I(SM) Cen | ient or Mii | ierai Admixt | ures |
| Number: | 2) | | | | | | |
| Revision: | Revi | se second sent | tence to read as t | follows: The | e use of fly | ash, blast fu | rnace slag cement, or |

micosilica in concrete is the Contractor's option.

| · | |
|--------------------|--|
| Subsection: | 601.03.03 Proportioning and Requirements |
| Part: | C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures |
| Number: | 2) |
| Revision: | Revise the first sentence in the second paragraph to read as follows: When the ability to use |
| | blast furnace slag cement or microsilica has not been demonstrated have the concrete producer |
| | provide trial batches in accordance with Subsection 601.03.02 G) 1). |
| Subsection: | 601.03.03 Proportioning and Requirements |
| Part: | C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures |
| Number: | 2) |
| Part: | b) |
| Revision: | Revise first sentence to read as follows: Blast Furnace Slag Cement |
| | 601.03.03 Proportioning and Requirements |
| Part: | C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures |
| Number: | 2) |
| Part: | b) |
| Revision: | Revise second sentence to read as follows: When added as a separate ingredient, use Grade |
| | 120 or Grade 100 slag to reduce the quantity of cement, except do not use blast furnace slag |
| | cement to reduce the quantity of Type IS(\(\le 30 \)) cement. |
| Subsection: | 601.03.03 Proportioning and Requirements |
| Part: | C) Mixtures Using Type IP, IS, and I(SM) Cement or Mineral Admixtures |
| Number: | 2) |
| Part: | b) |
| Revision: | In part b), replace all references to "GGBF slag" with "blast furnace slag cement". |
| | 601.03.04 Classes and Primary Uses |
| Part: | H) Class M1 |
| Revision: | Revise part H) to read as follows: High early strength for bridge joint repair and full or partial |
| | depth bridge deck patching. (Type 1 cement or blended hydraulic cement) |
| Subsection: | 603.03.06 Cofferdams. |
| Revision: | Replace the seventh sentence of paragraph one with the following: |
| | Submit drawings that are stamped by a Professional Engineer licensed in the Commonwealth of |
| | Kentucky. |
| Subsection: | 605.03.04 Tack Welding. |
| Revision: | Insert the subsection and the following: |
| | 605.03.04 Tack Welding. The Department does not allow tack welding. |
| Subsection: | 606.03.17 Special Requirements for Latex Concrete Overlays. |
| Part: | A) Existing Bridges and New Structures. |
| Number: | 1) Prewetting and Grout-Bond Coat. |
| Revision: | Add the following sentence to the last paragraph: Do not apply a grout-bond coat on bridge |
| | decks prepared by hydrodemolition. |
| Subsection: | 609.03 Construction. |
| Revision: | Replace Subsection 609.03.01 with the following: |
| | 609.03.01 A) Swinging the Spans. Before placing concrete slabs on steel spans or precast |
| | concrete release the temporary erection supports under the bridge and swing the span free on its |
| | supports. |
| | 609.03.01 B) Lift Loops. Cut all lift loops flush with the top of the precast beam once the |
| | beam is placed in the final location and prior to placing steel reinforcement. At locations where |
| | lift loops are cut, paint the top of the beam with galvanized or epoxy paint. |
| | |
| | |

| Subsections | 611.03.02 Precast Unit Construction. | | | | | | | |
|--------------------|--|--|--|--|--|--|--|--|
| Revision: | | | | | | | | |
| Revision: | Replace the first sentence of the subsection with the following: | | | | | | | |
| | Construct units according to ASTM C1577, replacing Table 1 (Design Requirements for | | | | | | | |
| | Precast Concrete Box Sections Under Earth, Dead and HL-93 Live Load Conditions) | | | | | | | |
| | with KY Table 1 (Precast Culvert KYHL-93 Design Table), and Section 605 with the | | | | | | | |
| | following exceptions and additions: | | | | | | | |
| | 613.03.01 Design. | | | | | | | |
| Number: | 2) | | | | | | | |
| Revision: | Replace "AASHTO Standard Specifications for Highway Bridges" with "AASHTO LRFD | | | | | | | |
| | Bridge Design Specifications" | | | | | | | |
| Subsection: | 615.06.02 | | | | | | | |
| Revision: | Add the following sentence to the end of the subsection. | | | | | | | |
| | The ends of units shall be normal to walls and centerline except exposed edges shall be beveled | | | | | | | |
| | ³ / ₄ inch. | | | | | | | |
| Subsection: | 615.06.03 Placement of Reinforcement in Precast 3-Sided Units. | | | | | | | |
| Revision: | Replace the reference of 6.6 in the section to 615.06.06. | | | | | | | |
| Subsection: | • | | | | | | | |
| Revision: | Replace the reference of 6.7 in the section to 615.06.07. | | | | | | | |
| | 615.06.06 Laps, Welds, and Spacing for Precast 3-Sided Units. | | | | | | | |
| Revision: | Replace the subsection with the following: | | | | | | | |
| ite vision. | Tension splices in the circumferential reinforcement shall be made by lapping. Laps may not be | | | | | | | |
| | tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall | | | | | | | |
| | meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.2 and | | | | | | | |
| | AASHTO 2012 Bridge Design Guide Section 5.11.6.3. For deformed welded wire fabric, the | | | | | | | |
| | · · · · · · · · · · · · · · · · · · · | | | | | | | |
| | overlap shall meet the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.1 | | | | | | | |
| | and AASHTO 2012 Bridge Design Guide Section 5.11.6.2. The overlap of welded wire fabric | | | | | | | |
| | shall be measured between the outer most longitudinal wires of each fabric sheet. For | | | | | | | |
| | deformed billet-steel bars, the overlap shall meet the requirements of AASHTO 2012 Bridge | | | | | | | |
| | Design Guide Section 5.11.2.1. For splices other than tension splices, the overlap shall be a | | | | | | | |
| | minimum of 12" for welded wire fabric or deformed billet-steel bars. The spacing center to | | | | | | | |
| | center of the circumferential wires in a wire fabric sheet shall be no less than 2 inches and no | | | | | | | |
| | more than 4 inches. The spacing center to center of the longitudinal wires shall not be more | | | | | | | |
| | than 8 inches. The spacing center to center of the longitudinal distribution steel for either line | | | | | | | |
| | of reinforcing in the top slab shall be not more than 16 inches. | | | | | | | |
| Subsection: | 615.06.07 Laps, Welds, and Spacing for Precast Endwalls. | | | | | | | |
| Revision: | Replace the subsection with the following: | | | | | | | |
| | Splices in the reinforcement shall be made by lapping. Laps may not be tack welded together | | | | | | | |
| | for assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements | | | | | | | |
| | of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.2 and AASHTO 2012 Bridge Design | | | | | | | |
| | Guide Section 5.11.6.3. For deformed welded wire fabric, the overlap shall meet the | | | | | | | |
| | | | | | | | | |
| | requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.5.1 and AASHTO 2012 | | | | | | | |
| | Bridge Design Guide Section 5.11.6.2. For deformed billet-steel bars, the overlap shall meet | | | | | | | |
| | the requirements of AASHTO 2012 Bridge Design Guide Section 5.11.2.1. The spacing center- | | | | | | | |
| | to-center of the wire fabric sheet shall not be less than 2 inches or more than 8 inches. | | | | | | | |

| Subsection: | 615.08.01 Type of Test Specimen. |
|--------------------|--|
| Revision: | Replace the subsection with the following: |
| | Start-up slump, air content, unit weight, and temperature tests will be performed each day on |
| | the first batch of concrete. Acceptable start-up results are required for production of the first |
| | unit. After the first unit has been established, random acceptance testing is performed daily for |
| | each 50 yd ³ (or fraction thereof). In addition to the slump, air content, unit weight, and |
| | temperature tests, a minimum of one set of cylinders shall be required each time plastic |
| | property testing is performed. |
| Subsection | 615.08.02 Compression Testing. |
| Revision: | Delete the second sentence. |
| | |
| Subsection: | 615.08.04 Acceptability of Core Tests. |
| Revision: | Delete the entire subsection. |
| | 615.12 Inspection. |
| Revision: | Add the following sentences to the end of the subsection: Units will arrive at jobsite with the |
| | "Kentucky Oval" stamped on the unit which is an indication of acceptable inspection at the |
| | production facility. Units shall be inspected upon arrival for any evidence of damage resulting |
| | from transport to the jobsite. |
| Subsection: | 701.04.16 Deduction for Pipe Deflection. |
| Revision: | Insert the following at the end of the paragraph: |
| | The section length is determined by the length of the pipe between joints where the failure |
| | occurred. |
| Subsection: | 716.02.02 Paint. |
| Revision: | Replace sentence with the following: Conform to Section 821. |
| Subsection: | 716.03 CONSTRUCTION. |
| Revision: | Replace bullet 5) with the following: 5) AASHTO Standard Specifications for Structural |
| | Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current |
| | interims, |
| Subsection: | 716.03.02 Lighting Standard Installation. |
| Revision: | Replace the paragraph with the following: |
| | Locate poles to avoid trees, drainage, structures, etc. Regardless of the station & offset noted, |
| | locate all poles/bases behind guardrail a minimum of 4 feet behind the face of the guardrail. |
| | All poles shall be placed as close to stations and offsets as stated on Plans to provide proper |
| | illumination. If any pole needs to be relocated from stations indicated, the Division of Traffic |
| | Operations shall be contacted. When submitting brochures for suggested luminaires include |
| | iso lux curves, IES type distribution, lamp lumens, and typical ballast factor used for each type |
| | of luminaire. Submit the photometric data in a digital IES format to the Division of Traffic |
| | Operations. Include with the submittal a point of contact and phone number to answer |
| | technical questions about the luminaire. |
| Subsection: | 716.03.02 Lighting Standard Installation. |
| Part: | A) Conventional Installation. |
| Revision: | Replace the third sentence with the following: Orient the transformer base so the door is |
| | positioned on the side away from on-coming traffic. |
| Subsection | 716.03.02 Lighting Standard Installation. |
| Part: | A) Conventional Installation. |
| Number: | 1) Breakaway Installation and Requirements. |
| | Replace the first sentence with the following: For breakaway supports, conform to Section 12 |
| Revision: | |
| | of the AASHTO Standard Specifications for Structural Supports for Highway Signs, |
| | Luminaires, and Traffic Signals, 2013-6th Edition with current interims. |

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Subsection: 716.03.02 Lighting Standard Installation.

Part: B) High Mast Installation

Revision: Replace the first three sentences of the first paragraph with the following: Install each high

mast pole as noted on Plans. Install each high mast pole on a separate circuit and use luminaires

with light patterns as indicated. Orient luminaires as shown in Plans.

Subsection: |716.03.02 Lighting Standard Installation.

Part: B) High Mast Installation
Number: 2) Concrete Base Installation

Revision: Modification of Chart and succeeding paragraphs within this section:

| Drilled Shaft Depth Data | | | | | | | |
|--------------------------|--------------|-------|--------------|-------|--------------|-----------|--------------|
| | | 3:1 0 | round | 2:1 (| Fround | 1.5:1 | Ground |
| Level Ground | | Sl | ope | Slope | | Slope (2) | |
| Soil | Rock | Soil | Rock | Soil | Rock | Soil | Rock |
| 17 ft | 7 f t | 19 ft | 7 f t | 20 ft | 7 f t | (1) | 7 f t |

| Steel Requirements | | | | |
|--------------------|-----------|------|-------------|--|
| Vert | ical Bars | Tie | s or Spiral | |
| Size | | | Spacing or | |
| Size | Total | Size | Pitch | |
| #10 | 16 | #4 | 12 inch | |

Note 1: Shaft length is 22 feet for cohesive soil only. For cohesionless soil, contact Geotechnical Branch for design.

Note 2: Do not construct high mast drilled shafts on ground slopes steeper than 1.5:1 without the approval of the Division of Traffic Operations.

If rock is encountered during drilling operations and confirmed by the Engineer to be of sound quality, the shaft is only required to be further advanced into the rock by the length of rock socket shown in the design table. The total length of the shaft need not be longer than that of soil alone. Both longitudinal rebar length and number of ties or spiral length shall be adjusted

If a shorter depth is desired for the drilled shaft, the Contractor shall provide, for the state's review and approval, a detailed column design with individual site specific soil and rock analysis performed and approved by a Professional Engineer licensed in the Commonwealth of Kentucky.

Spiral reinforcement may be substituted for ties. If spiral reinforcement is used, one and one-half closed coils shall be provided at the ends of each spiral unit. Subsurface conditions consisting of very soft clay or very loose saturated sand could result in soil parameters weaker than those assumed. Engineer shall consult with the Geotechnical Branch if such conditions

The bottom of the drilled hole shall be firm and thoroughly cleaned so no loose or compressible materials are present at the time of the concrete placement. If the drilled hole contains standing water, the concrete shall be placed using a tremie to displace water. Continuous concrete flow will be required to insure full displacement of any water.

The reinforcement and anchor bolts shall be adequately supported in the proper positions so no movement occurs during concrete placement. Welding of anchor bolts to the reinforcing cage is unacceptable, templates shall be used. Exposed portions of the foundation shall be formed to create a smooth finished surface. All forming shall be removed upon completion of foundation construction.

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| | • , |
|--------------------|---|
| Subsection: | 716.03.03 Trenching. |
| Part: | A) Trenching of Conduit for Highmast Ducted Cables. |
| Revision: | Add the following after the first sentence: If depths greater than 24 inches are necessary, obtain |
| | the Engineer's approval and maintain the required conduit depths coming into the junction |
| | boxes. No payment for additional junction boxes for greater depths will be allowed. |
| Subsection: | 716.03.03 Trenching. |
| Part: | B) Trenching of Conduit for Non-Highmast Cables. |
| Revision: | Add the following after the second sentence: If depths greater than 24 inches are necessary for |
| | either situation listed previously, obtain the Engineer's approval and maintain the required |
| | conduit depths coming into the junction boxes. |
| Subsection: | 716.03.04 Conduit Installation. |
| Revision: | Replace the first two sentences of the paragraph with the following: Provide rigid steel |
| | conduit encasement for all conductors except as specified in the Contract. Provide conduit that |
| | is listed on the Department's List of Approved Materials. |
| Subsection: | 716.03.04 Conduit Installation. |
| Part: | A) Conduit Requirements in Junction Boxes. |
| Number: | 1) Highmast Ducted Cable. |
| Revision: | Replace the first two sentences with the following: Install conduit horizontally through the |
| | junction box. Conduit shall be 4 inches from the bottom and 4 inches from the side of the |
| | junction box. |
| Subsection: | 716.03.04 Conduit Installation. |
| Revision: | Add the following to the Part to the Subsection: G) Bore and Jack. Construction |
| | methods shall be in accordance with Subsections 706.03.02, paragraphs 1, 2 and 4. |
| | 716.03.08 Splicing. |
| Revision: | Replace the last sentence of the paragraph with the following: Ensure the splices are of the |
| G 1 4° | correct size for the wire being used. |
| Subsection: | 716.03.10 Junction Boxes. |
| Revision: | Replace subsection title with the following: Electrical Junction Box and replace the last sentence of the paragraph with the following: Any additional junction boxes shall be approved |
| | by the Engineer. |
| Subsection: | 716.03.13 Temporary Lighting. |
| Revision: | Change subsection heading to the following: 716.03.13 Temporary/Maintain Lighting. |
| | 716.03.13 Temporary /Maintain Lighting. |
| Revision: | Replace the entire section with the following: |
| 110 (151011) | The Contractor shall furnish and install all materials necessary to temporarily light the proposed |
| | roadway to design standards in Subsection 716.03. The Contractor shall submit his proposed |
| | design of temporary lighting to the Division of Traffic Operations for approval at least 30 days |
| | before installation. |
| | |
| | Maintain all lighting elements impacted within or outside the project limits until new lighting |
| | elements are installed and a functional inspection has been performed on the new lighting |
| | elements. The Contractor shall submit a proposed design for maintaining lighting to the |
| | Division of Traffic Operations for approval at least 30 days before installation. |
| | 1 |

| Subsection: | 716.03.14 Remove Lighting. |
|--------------------|---|
| Revision: | |
| | Replace the section with the following: Remove all lighting equipment that is identified by |
| | the Engineer as no longer necessary including, but not limited to, the following: pole bases, |
| | poles, junction boxes, cabinets, and wood poles. Pole bases shall be removed a minimum of |
| | one foot below finished grade by chipping off or other method that is approved by the |
| | Engineer. Dispose of all removed concrete off right-of-way. Wood poles shall be removed a |
| | minimum of one foot below finished grade. Backfill holes with material approved by the |
| | Engineer. Conduit may be abandoned in the ground. All materials shall be removed from the |
| | project as directed by the Engineer. Transformers not owned by a utility shall be tested for |
| | |
| G 1 | PCB's and disposed of in accordance with state regulations. |
| | 716.03.15 Painting. |
| Revision: | |
| | Replace the first sentence with the following: Clean non-galvanized or damaged surfaces of |
| | exposed junction boxes, pull boxes, control panels, poles, and similar equipment, and apply |
| | one coat of an inhibiting paint and two coats of aluminum paint. |
| Subsection: | 716.04.01. Poles. |
| Revision: | Change the subsection heading to 716.04.01 Pole and replace the last sentence of the |
| Kevision. | subsection with the following: The Department will not measure anchor bolts, washers, nuts, |
| | anchor bolt covers, ground lugs, and any associated hardware for payment and will consider |
| | them incidental to this item of work. |
| G. I. At | |
| | 716.04.02 High Mast Pole. |
| Revision: | |
| | Replace the second sentence with the following: The Department will not measure the |
| | lowering device, anchor bolts, head frame assembly, cables, winch unit, power cables, wiring, |
| | connectors, circuit breakers, grounding lugs, ground wire, ground rods, conduits, test plugs,, |
| | adjustment and calibration of the unit to provide the desired operation, and any associated |
| | hardware for payment and will consider them incidental to this item of work. |
| Subsection: | 716.04.03 Bracket. |
| Revision: | Replace the second sentence with the following: The Department will not measure any |
| | associated hardware needed for attaching the bracket to the pole for payment and will consider |
| | them incidental to this item of work. |
| Subsection: | 716.04.04 Pole Base. |
| Revision: | Change the subsection heading to 716.04.04 Pole Bases and delete the paragraph. |
| Subsection: | 716.04.04 Pole Bases. |
| Revision: | Insert the following: |
| | A. Pole Base. The Department will measure the quantity as each individual unit furnished |
| | and installed. The Department will not measure excavation, concrete, conduits, fittings, ground |
| | rods, ground wires, ground lugs, reinforcing steel, restoring disturbed areas to the satisfaction |
| | of the Engineer, and any associated hardware for payment and will consider them incidental to |
| | this item of work. |
| | B. Pole Base High Mast. The Department will measure the quantity in cubic yards |
| | furnished and installed. The Department will not measure excavation, concrete, conduits, |
| | fittings, ground rods, ground wires, ground lugs, reinforcing steel, restoring disturbed areas to |
| | the satisfaction of the Engineer, and any associated hardware for payment and will consider |
| | them incidental to this item of work. |
| | meni incluentar to this item of work. |

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| fittings, junction boxes, additional reinforcing steel, ground rods, ground wire, ground lugs and aluminum cover plates (if specified) for payment, and will consider them incidental to thi item of work. 716.04.06 Transformer Base. Revision: Revision: Replace the last sentence with the following: The Department will not measure transformed door, ground lug, anchoring bolts, nuts, washers, and any associated hardware for payment an will consider them incidental to this item of work. The filling of any unused holes will also be considered incidental to this item of work. 8 | Subsection: | 716.04.05 Pole Base in Median Wall. |
|--|--------------------|--|
| Revision: Replace the last sentence with the following: The Department will not measure transformed door, ground lug, anchoring bolts, nuts, washers, and any associated hardware for payment an will consider them incidental to this item of work. The filling of any unused holes will also be considered incidental to this item of work. 716.04.07 Pole with Secondary Equipment. Revision: Revision: Replace the heading with the following: 716.04.07 Pole with Secondary Control Equipment. Replace the second and third sentence with the following: The Department will not measure mounting the cabinet to the pole, backfilling, restoration, any necessary hardware to anche pole, electrical inspection fees, and required building fees involving utility secondary, an primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breaker, contactor, manual switch, ground rods ground lugs, and ground wires for payment and will consider them incidental to this item of work. Subsection: Revision: 716.04.08 Lighting Control Equipment. Replace the paragraph with the following: The Department will not measure the concrete base, excavation, backfilling, restoration, any necessary anchors, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work. The Department will also not measure the filling of any unused holes | Revision: | |
| door, ground lug, anchoring bolts, nuts, washers, and any associated hardware for payment an will consider them incidental to this item of work. The filling of any unused holes will also be considered incidental to this item of work. Subsection: 716.04.07 Pole with Secondary Equipment. Revision: Replace the heading with the following: 716.04.07 Pole with Secondary Control Equipment. Revision: Replace the second and third sentence with the following: The Department will not measure mounting the cabinet to the pole, backfilling, restoration, any necessary hardware to ancho pole, electrical inspection fees, and required building fees involving utility secondary, an primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breaker, contactor, manual switch, ground rods ground lugs, and ground wires for payment and will consider them incidental to this item of work. The filling of unused holes will also be considered incidental to this item of work. Subsection: Revision: Revision: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure the concrete base, excavation, backfilling, restoration, any necessary anchors, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work. The Department will not measure the filling of any un | | |
| Revision: Replace the heading with the following: 716.04.07 Pole with Secondary Control Equipment. Revision: Revision: Replace the second and third sentence with the following: The Department will not measure mounting the cabinet to the pole, backfilling, restoration, any necessary hardware to ancho pole, electrical inspection fees, and required building fees involving utility secondary, an primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breaker, contactor, manual switch, ground rods ground lugs, and ground wires for payment and will consider them incidental to this item of work. Revision: Revision: Revision: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure the concrete base, excavation, backfilling, restoration, any necessary anchors, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work. Subsection: 716.04.09 Luminaire. Revision: 716.04.09 Luminaire. Revision: 716.04.09 Luminaire. Replace the paragraph with the following: The Department will not measure the quantity as each individual unit furnished and installed. The Department will not measure lamps, starters, ballasts, drivers, surge protection, dimming modules, photo-control receptacle, specified shielding (if required), and any adjustments | Revision: | door, ground lug, anchoring bolts, nuts, washers, and any associated hardware for payment and will consider them incidental to this item of work. The filling of any unused holes will also be |
| Subsection: 716.04.07 Pole with Secondary Control Equipment. Revision: Replace the second and third sentence with the following: The Department will not measure mounting the cabinet to the pole, backfilling, restoration, any necessary hardware to ancho pole, electrical inspection fees, and required building fees involving utility secondary, an primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breaker, contactor, manual switch, ground rode ground lugs, and ground wires for payment and will consider them incidental to this item of work. Subsection: Revision: 716.04.08 Lighting Control Equipment. Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure the concrete base, excavation, backfilling, restoration, any necessary anchors, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work. The Department will not measure the filling of any unused holes with and will consider them incidental to this item of work. Subsection: 716.04.09 Luminaire. Replace the paragraph with the following: The Department will not measure the quantity as each individual unit furnished and installed. The Department will not measure lamps, starters, ballasts, drivers, surge protection, dimming mo | Subsection: | 716.04.07 Pole with Secondary Equipment. |
| Subsection: 716.04.07 Pole with Secondary Control Equipment. Revision: Replace the second and third sentence with the following: The Department will not measure mounting the cabinet to the pole, backfilling, restoration, any necessary hardware to ancho pole, electrical inspection fees, and required building fees involving utility secondary, an primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breaker, contactor, manual switch, ground rode ground lugs, and ground wires for payment and will consider them incidental to this item of work. Subsection: Revision: 716.04.08 Lighting Control Equipment. Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure the concrete base, excavation, backfilling, restoration, any necessary anchors, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work. The Department will not measure the filling of any unused holes with and will consider them incidental to this item of work. Subsection: 716.04.09 Luminaire. Replace the paragraph with the following: The Department will not measure the quantity as each individual unit furnished and installed. The Department will not measure lamps, starters, ballasts, drivers, surge protection, dimming mo | Revision: | |
| mounting the cabinet to the pole, backfilling, restoration, any necessary hardware to ancho pole, electrical inspection fees, and required building fees involving utility secondary, an primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breaker, contactor, manual switch, ground rods ground lugs, and ground wires for payment and will consider them incidental to this item of work. The filling of unused holes will also be considered incidental to this item of work. Subsection: 716.04.08 Lighting Control Equipment. Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure the concrete base, excavation, backfilling, restoration, any necessary anchors, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work. The Department will not measure the filling of any unused holes with and will consider them incidental to this item of work. The Department will not measure lamps, starters, ballasts, drivers, surge protection, dimming modules, photo-control receptacle, specified shielding (if required), and any adjustments necessary to provide the desired lighting pattern for payment and will consider them incidental to this item of work. | Subsection: | |
| Revision: Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure the concrete base, excavation, backfilling, restoration, any necessary anchors, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work. The Department will not measure the filling of any unused holes with and will consider them incidental to this item of work. Subsection: Revision: Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure lamps, starters, ballasts, drivers, surge protection, dimming modules, photo-control receptacle, specified shielding (if required), and any adjustments necessary to provide the desired lighting pattern for payment and will consider them incidental to this item of work. Subsection: 716.04.10 Fused Connector Kits. | Revision: | Replace the second and third sentence with the following: The Department will not measure mounting the cabinet to the pole, backfilling, restoration, any necessary hardware to anchor pole, electrical inspection fees, and required building fees involving utility secondary, and primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breaker, contactor, manual switch, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work. The filling of unused holes will also be considered incidental to this item of work. |
| The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure the concrete base, excavation, backfilling, restoration, any necessary anchors, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work. The Department will not measure the filling of any unused holes with and will consider them incidental to this item of work. Subsection: Revision: Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure lamps, starters, ballasts, drivers, surge protection, dimming modules, photo-control receptacle, specified shielding (if required), and any adjustments necessary to provide the desired lighting pattern for payment and will consider them incidental to this item of work. Subsection: 716.04.10 Fused Connector Kits. | Subsection: | 716.04.08 Lighting Control Equipment. |
| Revision: Replace the paragraph with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure lamps, starters, ballasts, drivers, surge protection, dimming modules, photo-control receptacle, specified shielding (if required), and any adjustments necessary to provide the desired lighting pattern for payment and will consider them incidental to this item of work. Subsection: 716.04.10 Fused Connector Kits. | Revision: | The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure the concrete base, excavation, backfilling, restoration, any necessary anchors, electrical inspection fees, and required building fees involving utility secondary/primary service for payment and will consider them incidental to this item of work. The Department will also not measure furnishing and installing electrical service conductors, specified conduits, meter base, transformer, service panel, fused cutout, fuses, lighting arrestors, photoelectrical control, circuit breakers, contactor, manual switch, ground rods, ground lugs, and ground wires for payment and will consider them incidental to this item of work. The Department will not measure the filling of any unused holes with and will consider them incidental to this item of work. |
| each individual unit furnished and installed. The Department will not measure lamps, starters, ballasts, drivers, surge protection, dimming modules, photo-control receptacle, specified shielding (if required), and any adjustments necessary to provide the desired lighting pattern for payment and will consider them incidental to this item of work. Subsection: 716.04.10 Fused Connector Kits. | Subsection: | 716.04.09 Luminaire. |
| | Revision: | each individual unit furnished and installed. The Department will not measure lamps, starters, ballasts, drivers, surge protection, dimming modules, photo-control receptacle, specified shielding (if required), and any adjustments necessary to provide the desired lighting pattern for |
| | Subsection: | 716.04.10 Fused Connector Kits. |
| | | |

| nnector Kits. aph with the following: The Department will measure the quantity as each hished and installed. The Department will not measure fuses/lugs for |
|--|
| |
| ilshed and installed. The Department will not measure fuses/lugs for |
| and denote an incidental to this items of some |
| onsider them incidental to this item of work. |
| |
| |
| sentence with the following: The Department will not measure installation |
| uctures, conduit fittings, test plugs, expansion joints with bonding straps, |
| ll anchors, clamps, and any additional hardware required for payment and |
| incidental to this item of work. |
| |
| with the following: The Department will measure the quantity as each |
| nished and installed. |
| Box. |
| tion title with the following: Electrical Junction Box Type Various. |
| al Junction Box Type Various. |
| with the following: The Department will measure the quantity as each |
| nished and installed. The Department will not measure additional junction |
| epths than those identified in Plans, #57 aggregate, backfilling, restoration of |
| he satisfaction of the Engineer, geotextile filter fabric, concrete, hot dipped |
| stainless steel screws, rubber gasket, and any associated hardware for |
| consider them incidental to this item of work. |
| |
| Box. |
| cal. |
| |
| ng and Backfilling. |
| with the following: The Department will measure the quantity in linear |
| ent will not measure excavation, backfilling, underground utility warning |
| and the restoration of disturbed areas to original condition for payment and |
| incidental to this item of work. |
| Cable. |
| with the following: The Department will measure the quantity in linear feet |
| lled. The Department will not measure installation within conduit, splice |
| er hardware required for installing cable for payment and will consider them |
| em of work. |
| Cable. |
| sentence of the paragraph with the following: The Department will not |
| n within trench or conduit and any other necessary hardware for payment |
| nem incidental to this item of work. |
| ary Lighting |
| tion as follows: 716.04.17 Temporary Lighting/Maintain Lighting. |
| |

| Subsection: | 716.04.17 Temr | orary Lighting/Maintain Lighting. | |
|--------------------|--|--|---|
| | _ | graph and add the following parts: | |
| Tto Vision. | | gighting. The Department will measure | are the quantity by lump sum. The |
| | , . | not measure poles, luminaires, wire, | |
| | control equipment, all relocations and removal, design (if required), and any other necessary | | |
| | hardware to make a complete installation for payment and will consider them incidental to this | | |
| | item of work. | | |
| | B) Maintain Lighting. The Department will measure the quantity by lump sum. The | | |
| | Department will not measure maintenance of lighting elements and design (if required) for | | |
| | | ll consider them incidental to this iter | |
| | 716.04.18 Remo | | III OT WORK. |
| | | | partment will measure the quantity by lump |
| | | rtment will not measure backfilling a | |
| | | | ral or electrical component of the lighting |
| | | the contract of the contract o | , junction boxes, cabinets, and wood poles |
| | , | will consider them incidental to this | |
| | r pag i i i i | | |
| Subsection: | 716.04.19 Rem | ove Pole Base. | |
| Revision: | Delete Subsection | on. | |
| Subsection: | 716.04.20 Bore | and Jack Conduit. | |
| Revision: | Renumber Subs | ection to 716.04.19 Bore and Jack Co | onduit. |
| Subsection: | 716.04.19 Bore | and Jack Conduit. | |
| Revision: | Replace the paragraph with the following: The Department will measure the quantity in linear | | |
| | feet. This item shall include all work necessary for boring and installing conduit under an | | |
| | existing roadway. | | |
| Subsection: | 716.05 PAYME | NT. | |
| Revision: | Revise the following under <u>Code</u> , <u>Pay Item</u> , and <u>Pay Unit</u> with the following: | | |
| | <u>Code</u> | Pay Item | Pay Unit |
| | 04700-04701 | Pole(Various)Mtg Ht | Each |
| | 04710-04714 | Pole(Various)Mtg Ht High Mast | Each |
| | 04810-04811 | Electrical Junction Box (Various) | Each |
| | 20391NS835 | Electrical Junction Box Type A | Each |
| | 20392NS835 | Electrical Junction Box Type C | Each |
| | 04770-04773 | Luminaire (Various) | Each |
| | 04780 | Fuse Connector Kit | Each |
| | 20410ED | Maintain Lighting | Lump Sum |
| | 04941 | Remove Pole Base | - Each |
| | 723.02.02 Paint. | | |
| | | e with the following: Conform to Sec | etion 821. |
| | 723.03 CONSTI | | |
| Revision: | • | , | Standard Specifications for Structural |
| | Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current | | e Signals, 2013-6th Edition with current |
| | interims, | | |
| | | and Bases Installation. | |
| Revision: | Replace the title | with the following: 723.03.02 Pole | and Base Installation. |

| Subsection: | 723.03.02 Pole and Base Installation. | | |
|--------------------|--|--|--|
| Revision: | Replace the first paragraph with the following: Regardless of the station and offset noted, | | |
| | locate all poles/bases behind the guardrail a minimum of four feet from the front face of the | | |
| | guardrail to the front face of the pole base. Orient the handhole door away from traffic travel | | |
| | path. If pole base is installed within a sidewalk the top of the pole base shall be the same grade | | |
| | as the sidewalk. | | |
| Subsection: | 723.03.02 Poles and Bases Installation. | | |
| Part: | A) Steel Strain and Mastarm Poles Installation | | |
| Revision: | Replace the title of Part A) Steel Strain and Mast Arm Pole Installation. | | |
| Subsection: | 723.03.02 Pole and Base Installation. | | |
| Part: | A) Steel Strain and Mast Arm Pole Installation. | | |
| Revision: | Insert the following sentence at the beginning of the first paragraph: Install pole bases 4 to 6 | | |
| | inches above grade. | | |
| Subsection: | 723.03.02 Pole and Base Installation. | | |
| Part: | A) Steel Strain and Mast Arm Pole Installation. | | |
| Revision: | Replace the second paragraph with the following: For concrete base installation, see Subsection | | |
| | 716.03.02 B), 2), Paragraphs 2-6. Drilled shaft depth shall be based on the soil conditions | | |
| | encountered during drilling and slope condition at the site. Refer to the design chart below: | | |
| | | | |
| Subsection: | 723.03.02 Pole and Base Installation. | | |
| Part: | B) Pedestal or Pedestal Post Installation. | | |
| Revision: | Replace the second sentence with the following: If over 12 feet high the base shall have the | | |
| | minimum depth and diameter as Subsection 716.03.02 (A), paragraph 2. | | |
| Subsection: | 723.03.02 Poles and Bases Installation. | | |
| Part: | B) Pedestal or Pedestal Post Installation. | | |
| Revision: | Replace the fourth sentence of the paragraph with the following: For breakaway supports, | | |
| | conform to Section 12 of the AASHTO Standard Specifications for Structural Supports for | | |
| | Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims. | | |
| Subsection: | 723.03.03 Trenching. | | |
| Revision: | Replace the first sentence with the following: See Subsection 716.03.03 (B). | | |
| Subsection: | 723.03.03 Trenching. | | |
| Part: | A) Under Roadway. | | |
| Revision: | Delete Part A) Under Roadway. | | |
| Subsection: | 723.03.05 Conduit Requirements in Junction Boxes. | | |
| Revision: | Delete the Subsection and replace with the following: | | |
| | 723.03.05 Fuse Connector Kits. See Subsection 716.03.09. | | |
| Subsection: | 723.03.06 Coupling Installation. | | |
| Revision: | Delete the Subsection and replace with the following: | | |
| | 723.03.06 Painting. See Subsection 716.03.15. | | |
| Subsection: | 723.03.07 Bonding Requirements. | | |
| Revision: | Delete the Subsection and replace with the following: | | |
| | 723.03.07 Electrical Junction Boxes. See Subsection 716.03.10. | | |

| Subsection:723.03.08 Painting.Revision:Replace with 723.03.06 Painting. See Subsection:Subsection:723.03.09 Underground Warning Tape.Revision:Renumber Subsection to 723.03.08 Underground Warning Tape. | section 716.03.15. |
|--|---|
| Subsection: 723.03.09 Underground Warning Tape. Revision: Renumber Subsection to 723.03.08 Undergo | section 716.03.15. |
| Revision: Renumber Subsection to 723.03.08 Undergo | |
| | |
| | <u> </u> |
| Subsection: 723.03.10 Backfilling and Disturbed Areas | 3. |
| Revision: Renumber Subsection to 723.03.09 Backfi | lling and Disturbed Areas. |
| Subsection: 723.03.11 Wiring Installation. | |
| Revision: Renumber Subsection to 723.03.10 Wiring | Installation. |
| Subsection: 723.03.10 Wiring Installation. | |
| | fth and sixth sentences: Provide an extra two feet of |
| | duit in poles, pedestals, and junction boxes. |
| The state of the s | |
| | |
| Subsection: 723.03.12 Loop Installation. | |
| Revision: Renumber Subsection to 723.03.11 Loop I | nstallation. |
| Subsection: 723.03.11 Loop Installation. | |
| • | agraph with the following: Provide an extra two feet |
| of loop wire and lead-in past the installed of | conduit in poles, pedestals, and junction boxes. |
| | |
| | |
| Subsection: 723.03.13 Grounding Installation. | |
| Revision: Renumber Subsection to 723.03.12 Ground | ding Installation. |
| Subsection: 723.03.12 Grounding Installation. | |
| Revision: Replace the reference to "Standard Detail S | Sheets" in the first sentence with "Plans". |
| Subsection: 723.03.14 Splicing. | |
| Revision: Renumber Subsection to 723.03.13 Splicing | g. |
| Subsection: 723.03.13 Splicing. | |
| Revision: Delete the reference to (IMSA 19-2) from | the 5th sentence of the paragraph. |
| Subsection: 723.03.15 Painting. | |
| Revision: Delete Subsection. | |
| Subsection: 723.03.14 Splicing. | |
| Revision: Replace with new Subsection 723.03.14 Re | emove Signal Equipment. |
| Subsection: 723.03.14 Remove Signal Equipment. | |
| | : Remove all traffic signal equipment that is |
| S. | essary including, but not limited to, the following: |
| | wood poles, and advance warning flashers. Pole |
| | foot below finished grade by chipping off or other |
| | Dispose of all removed concrete off right-of-way. |
| | of one foot below finished grade. Backfill holes with |
| | nit may be abandoned in the ground. Contact the |
| | |
| | removed signal equipment needs to be returned to |
| the district and to determine the location/ti | me for such defiveries. |
| | |
| G. 1 | |
| Subsection: 723.05.16 Drawings. | |
| Revision: Renumber the Subsection to 723.03.15 Dra | awings. |

| Subsection: | 723.03.15 Drawings. | |
|--------------------------|--|--|
| Revision: | Replace Subsection with the following: Before final inspection of the traffic control device, provide a complete set of reproducible as-built drawings that show the arrangement and locations of all equipment including: junction boxes, conduits, spare conduits, etc. Keep a daily record of all conduits placed in trenches, showing the distance from the pavement edge, the depth, and the length of runs, and indicate this information on the as-built drawings. | |
| Subsection: | 723.03.17 Acceptance and Inspection Requirements. | |
| Revision: | Renumber Subsection to 723.03.16 Acceptance and Inspection Requirements. | |
| Subsection: Revision: | 723.03.16 Acceptance and Inspection Requirements. Replace the first paragraph of the section with the following: See Subsection 105.12. In coordination with the District Traffic Engineer, energize traffic control device as soon as it is fully functional and ready for inspection. After the work has been completed, conduct an operational test demonstrating that the system operates in accordance with the Plans in the presence of the Engineer. The Department will also conduct its own tests with its own equipment before final acceptance. Ensure that the traffic control device remains operational until the Division of Traffic Operations has provided written acceptance of the electrical work. | |
| Subsection | 723.04.01 Conduit. | |
| Revision: | Replace the second sentence of the subsection with the following: The Department will not measure conduit fittings, ground lugs, test plugs, expansion joints, and clamps for payment and will consider them incidental to this item of work. | |
| Subsection: | 723.04.02 Junction Box. | |
| Revision: | Replace subsection title with the following: Electrical Junction Box Type Various. | |
| | 723.04.02 Electrical Junction Box Type Various. | |
| Revision: | Replace the subsection with the following: The Department will measure the quantity as each individual unit furnished and installed. The Department will not measure additional junction boxes for greater depths than those identified in Plans, Aggregate (#57), backfilling, restoration of disturbed areas to the satisfaction of the Engineer, geotextile fabric, concrete, hot dipped galvanized cover, stainless steel screws, rubber gasket, and any associated hardware for payment and will consider them incidental to this item of work. | |
| Subsection: | 723.04.03 Trenching and Backfilling. | |
| Revision: | Replace the second sentence with the following: The Department will not measure excavation, backfilling, underground utility warning tape, and the restoration of disturbed areas to original condition for payment and will consider them incidental to this item of work. | |
| Subsection: | 723.04.04 Open Cut Roadway. | |
| Revision: | Replace the second sentence of the subsection with the following: The Department will not measure concrete, reinforcing steel, and asphalt for payment and will consider them incidental to this item of work. | |
| Subsection: | 723.04.05 Loop Wire. | |
| | Replace the second sentence of the subsection with the following: The Department will not measure splice boots, cable rings, and any other necessary hardware for payment and will consider them incidental to this item of work. | |
| Subsection: | 723.04.06 Cable. | |
| Revision: | Replace the second sentence of the subsection with the following: The Department will not measure splice boots, cable rings, and any other hardware for payment and will consider them incidental to this item of work. | |

| Subsection: | 723.04.07 Pole-Wooden. |
|--------------------|--|
| Revision: | Replace the second sentence of the subsection with the following: The Department will not |
| | measure excavation, backfilling, and restoring disturbed areas for payment and will consider |
| | them incidental to this item of work. |
| Subsection: | 723.04.08 Steel Strain Pole. |
| Revision: | Replace the second sentence of the subsection with the following: The Department will not |
| | measure excavation, backfilling, and restoring disturbed areas for payment and will consider |
| | them incidental to this item of work. |
| | 723.04.09 Mast Arm Pole. |
| Revision: | Replace the second sentence of the subsection with the following: The Department will not |
| | measure anchor bolts, arms, mounting brackets, and any other necessary hardware for payment |
| ~ - | and will consider them incidental to this item of work. |
| | 723.04.10 Signal Pedestal. |
| Revision: | Replace the second sentence of the subsection with the following: The Department will not |
| | measure excavation, concrete, reinforcing steel, conduits, fittings, ground rods, ground wire, |
| | ground lugs, backfilling, restoring disturbed areas, and other necessary hardware for payment |
| | and will consider them incidental to this item of work. |
| Subsection | 723.04.11 Post. |
| Revision: | Replace the second sentence of the subsection with the following: The Department will not |
| Revision. | measure excavation, backfilling, and restoring disturbed areas for payment and will consider |
| | them incidental to this item of work. |
| Subsection: | 723.04.12 Anchor. |
| Revision: | Replace the second sentence of the subsection with the following: . The Department will not |
| | measure down-guy, messenger, clamps, guy guard, or insulators, and possible installation in |
| | various soil conditions for payment and will consider them incidental to this item of work. |
| | |
| Subsection: | 723.04.13 Messenger. |
| Revision: | Replace the second sentence of the subsection with the following: The Department will not |
| | measure strand vises, bolts, washers, and other necessary hardware for payment and will |
| | consider them incidental to this item of work. |
| | 723.04.14 Install Signal LED. |
| Revision: | Revise subsection title to 723.04.14 Install Beacon Controller - 2 Circuit. |
| Subsection: | 723.04.14 Install Beacon Controller - 2 Circuit. |
| Revision: | Replace the subsection with the following: The Department will measure the quantity as each |
| | individual unit furnished and installed. The Department will not measure the controller |
| | housing, mounting equipment, S5-1 school zone sign, time clock, nema flasher, ground rods, |
| | ground wires, ground lugs, metering disconnect hardware, electrical inspection fees, and |
| | required building fees involving utility secondary/primary service for payment and will |
| | consider them incidental to this item of work. |
| | |

| ction with the following: The Department will not on loop saw slot, loop sealant, backer rod, drilling hole ill consider them incidental to this item of work. g: The Department will measure the quantity as each onnected to pole/pedestal. The Department will not housing, and installing mounting hardware for sign ental to this item of work. ction with the following: The Department will not odules, retroreflective tape, back plates, and any other hem incidental to this item of work. ction with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, econductors, conduits, anchors, meter base, fused |
|---|
| on loop saw slot, loop sealant, backer rod, drilling hole ill consider them incidental to this item of work. g: The Department will measure the quantity as each onnected to pole/pedestal. The Department will not housing, and installing mounting hardware for sign ental to this item of work. ection with the following: The Department will not odules, retroreflective tape, back plates, and any other hem incidental to this item of work. ection with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| g: The Department will measure the quantity as each onnected to pole/pedestal. The Department will not housing, and installing mounting hardware for sign ental to this item of work. ction with the following: The Department will not odules, retroreflective tape, back plates, and any other hem incidental to this item of work. ction with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| g: The Department will measure the quantity as each onnected to pole/pedestal. The Department will not housing, and installing mounting hardware for sign ental to this item of work. Cotion with the following: The Department will not odules, retroreflective tape, back plates, and any other hem incidental to this item of work. Cotion with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| ction with the following: The Department will not odules, retroreflective tape, back plates, and any other hem incidental to this item of work. ction with the following: The Department will not odules, retroreflective tape, back plates, and any other hem incidental to this item of work. ction with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| ction with the following: The Department will not odules, retroreflective tape, back plates, and any other hem incidental to this item of work. ction with the following: The Department will not odules, retroreflective tape, back plates, and any other hem incidental to this item of work. ction with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| housing, and installing mounting hardware for sign ental to this item of work. ction with the following: The Department will not odules, retroreflective tape, back plates, and any other hem incidental to this item of work. ction with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| ental to this item of work. ction with the following: The Department will not odules, retroreflective tape, back plates, and any other hem incidental to this item of work. ction with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| ection with the following: The Department will not odules, retroreflective tape, back plates, and any other hem incidental to this item of work. ection with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| odules, retroreflective tape, back plates, and any other hem incidental to this item of work. ction with the following: The Department will not cabinet, connecting the signal and detectors, ecessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| odules, retroreflective tape, back plates, and any other hem incidental to this item of work. ction with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| ction with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| ction with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| ction with the following: The Department will not cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| cabinet, connecting the signal and detectors, eccessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| ecessary pole mounting hardware, electric service, es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| es involving secondary/primary service for payment tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| tem of work. The Department will also not measure of loop amplifiers, pedestrian isolators, load switches, |
| of loop amplifiers, pedestrian isolators, load switches, |
| |
| conductors, conduits, anchors, inclor base, rasea |
| and ground lugs for payment and will consider them |
| and ground lugs for payment and will consider them |
| |
| ction with the following: The Department will not |
| g equipment, S5-1 school zone sign, time clock, nema |
| d lugs, metering disconnect hardware, electrical |
| s involving utility secondary/primary service for |
| al to this item of work. |
| 2 170. |
| : The Department will measure the quantity as each |
| t will not measure the concrete base, mounting the |
| |
| ors, excavation, backfilling, restoration, any necessary |
| electrical inspection fees, and required building fees |
| ce for payment and will consider them incidental to |
| lso not measure connecting the induction loop |
| ches, model 400 modem card for payment and will |
| ork. The Department will also not measure furnishing |
| rs, conduits, anchors, meter base, fused cutout, fuses, |
| res for payment and will consider them incidental to |
| |
| |
| ction with the following: The Department will not |
| for payment and will consider them incidental to this |
| |
| |

| Subsection: | 723.04.22 Remove Signal Equipment. |
|--------------------------|---|
| Revision: | Replace the paragraph with the following: The Department will measure the quantity by lump sum. The Department will not measure backfilling and the disposal or transportation of equipment and materials associated with any structural or electrical component of the signal system including, but not limited to pole bases, poles, junction boxes, cabinets, and wood poles for payment and will consider them incidental to this item of work. |
| Subsection: Revision: | 723.04.23 Install Span/Pole Mounted Sign. Replace the second sentence of the subsection with the following: The Department will not measure the hanger or any other hardware necessary to install the sign for payment and will consider them incidental to this item of work. |
| Subsection: Revision: | 723.04.24 Install Pedestrian Head LED. Insert the following sentence at the end of the paragraph: The Department will not measure the installation of LED modules and any other necessary hardware for payment and will consider them incidental to this item of work. |
| Revision: | 723.04.25 Install Signal LED. Insert the following sentence at the end of the paragraph: The Department will not measure the installation of LED modules, retroreflective tape, back plates, and any other necessary hardware for payment and will consider them incidental to this item of work. |
| | 723.04.26 Install Coordinating Unit. Replace the subsection with the following: The Department will measure the quantity as each individual unit installed. The Department will not measure radio, modem, cable(s), antenna(s), router, repeater, and any other necessary hardware for payment and will consider them incidental to this item of work. |
| Subsection: Revision: | 723.04.27 Video Camera. Replace the second sentence of the subsection with the following: The Department will not measure video modules, mounting bracket, truss type arm, power cable, coaxial cable, and any other necessary hardware for payment and will consider them incidental to this item of work. |
| Subsection: Revision: | 723.04.28 Install Pedestrian Detector Audible. Replace the second sentence with the following: The Department will not measure installing R10-3e sign, detector housing, and installing mounting hardware for payment and will consider them incidental to this item of work. |
| Subsection: Revision: | 723.04.29 Audible Pedestrian Detector. Replace the second sentence with the following: The Department will not measure furnishing and installing the R10-3e sign, detector housing, and installing mounting hardware for payment and will consider them incidental to this item of work. |
| Subsection: Revision: | 723.04.30 Bore and Jack Conduit. Replace the paragraph with the following: The Department will measure the quantity in linear feet. This item shall include all work necessary for boring and installing conduit under an existing roadway. |

| | 723.04.31 Install Pedestrian Detector. |
|--------------------|---|
| Revision: | |
| | Replace the paragraph with the following: The Department will measure the quantity as each |
| | individual unit installed and connected to pole/pedestal. The Department will not measure |
| | installing R 10-3e sign, detector housing, and installing mounting hardware for payment and |
| | will consider them incidental to this item of work. |
| Subsection: | 723.04.32 Install Mast Arm Pole. |
| Revision: | Replace the second sentence with the following: The Department will not measure installation |
| | of arms, signal mounting brackets, anchor bolts, and any other necessary hardware for payment |
| | and will consider them incidental to this item of work. |
| | 723.04.33 Pedestal Post. |
| Revision: | Replace the second sentence with the following: The Department will not measure excavation, |
| | backfilling, restoration, furnishing and installing concrete, reinforcing steel, anchor bolts, |
| | conduit, fittings, ground rod, ground wire, ground lugs, or any other necessary hardware for |
| | payment and will consider them incidental to this item of work. |
| | payment and will consider them incidental to this item of work. |
| G 1 | |
| | 723.04.34 Span Mounted Sign. |
| | Revise subsection title to 723.04.34 Span/Pole-Mounted Sign. |
| | 723.04.34 Span/Pole-Mounted Sign. |
| | Replace the second sentence of the subsection with the following: The Department will not |
| | measure the hanger, sign, and any other necessary hardware for payment and will consider |
| | them incidental to this item of work. |
| Subsection: | 723.04.35 Remove and Reinstall Coordinating Unit. |
| Revision: | Add the following sentence to the end of the subsection: The Department will not measure |
| | removing, storage, reinstalling, and connecting radio, modem, cable(s), antenna(s), router, |
| | repeater, and any other necessary hardware for payment and will consider them incidental to |
| | this item of work. |
| | 723.04.36 Traffic Signal Pole Base. |
| | Replace the second sentence of the subsection with the following: The Department will not |
| | measure excavation, backfilling, restoration, furnishing and installing reinforcing steel, anchor |
| | bolts, conduits, ground rods, ground wires, and ground lugs for payment and will consider |
| | them incidental to this item of work. |
| | 723.04.37 Install Signal Pedestal. |
| | Replace the second sentence of the subsection with the following: . The Department will not |
| | |
| | measure excavation, backfilling, restoration, furnishing and installing concrete, reinforcing |
| | steel, conduits, fittings, ground rod, ground wire, ground lugs, and any other necessary |
| | hardware for payment and will consider them incidental to this item of work. |
| Cubacti | 722 04 29 Install Pedestal Post |
| | 723.04.38 Install Pedestal Post. |
| | Replace the second sentence of the subsection with the following: The Department will not |
| | measure excavation, backfilling, restoration, furnishing and installing concrete, reinforcing |
| | steel, conduit, fittings, ground rod, ground wire, ground lugs, and any other necessary hardware |
| | for payment and will consider them incidental to this item of work. |
| | |
| | 723.04.39 Install Antenna. |
| | Replace the second sentence of the subsection with the following: The Department will not |
| | measure any other materials necessary to complete the installation for payment and will |
| | consider them incidental to this item of work. |

| Subsection: | 723.05 PAYMENT. | | |
|--------------------|--|--|--|
| Revision: | Replace items 04810-04811, 20391NS835, 20392NS835,23052NN and add item number | | |
| 140 (191011) | 24526ED under Code, Pay Item, and Pay Unit with the following: | | |
| | The second second is a second | | |
| | Code Pay Item Pay Unit | | |
| | 04810 Electrical Junction Box Each | | |
| | 04811 Electrical Junction Box Type B Each | | |
| | 20391NS835 Electrical Junction Box Type A Each | | |
| | 20392NS835 Electrical Junction Box Type C Each | | |
| | 23052NN Span/Pole-Mounted Sign Each | | |
| | 24526ED Install Beacon Controller 2 Cir Each | | |
| Subsection: | 801.01 REQUIREMENTS | | |
| Revision: | Replace first sentence in paragraph one with the following: Provide Portland cement or | | |
| 110 (151011) | blended hydraulic cement from approved mills listed in the Department's List of Approved | | |
| | Materials. | | |
| Subsection: | 801.01 REQUIREMENTS | | |
| Number: | 1) | | |
| Revision: | Replace first sentence with the following: Type I, II, III, and IV <i>Portland cement</i> conforms to | | |
| 210 (101011) | ASTM C 150. | | |
| Subsection: | 801.01 REQUIREMENTS | | |
| Number: | 3) | | |
| Revision: | Replace the first sentence with the following: Type IP (≤20), Portland-pozzolan cement, | | |
| 210 (101011) | conforms to ASTM C595, and the following additional requirements to Type IP (≤20). | | |
| | comornia to 115111 Coso, una una fono vinig additional requirements to 13pc ii (220). | | |
| Subsection: | 801.01 REQUIREMENTS | | |
| Number: | 3) | | |
| Part: | b) | | |
| Revision: | Delete part b) | | |
| | 801.01 REQUIREMENTS | | |
| Number: | 3) | | |
| Part: | c) | | |
| Revision: | Rename Part c) to Part b) and replace the text with the following: The cement manufacturer | | |
| | shall furnish to the Engineer reports showing the results of tests performed on the fly ash used | | |
| | in the manufacture of the Type IP(≤20) cement shipped to the project. | | |
| | The state of the s | | |
| Subsection | 201 01 DEOLUDEMENTS | | |
| Number: | 801.01 REQUIREMENTS | | |
| Part: | 3) | | |
| Revision: | d) Ranama Part d) to Part o) | | |
| | Rename Part d) to Part c) 801.01 REQUIREMENTS | | |
| Number: | 3) | | |
| Part: | e) | | |
| Revision: | Rename Part e) to Part d) and replace the text with the following: Use only one brand of Type | | |
| 14C (15IUII. | IP(\leq 20) cement throughout the project, unless the Engineer approved a change in brand in | | |
| | writing. | | |
| Subsection: | | | |
| Number: | 4) | | |
| Revision: | Replace first sentence with the following: Type IS(≤30), Portland blast furnace slag cement, | | |
| IXC VISIUII. | conforms to ASTM C 595 and the following requirements: | | |
| | comornis to ASTWIC 393 and the following requirements. | | |

| Subsection: | 801.01 REQUIREMENTS |
|--------------------|--|
| Number: | 4) |
| Part: | a) |
| Revision: | Replace part a) with the following: Use Grade 100 or 120 blast furnace slag cement |
| 210 (101011) | conforming to the requirements of ASTM C 989. |
| Subsection: | 801.01 REQUIREMENTS |
| Number: | 4) |
| Part: | b) |
| Revision: | Delete part b) |
| | 801.01 REQUIREMENTS |
| Number: | 4) |
| Part: | c) |
| Revision: | Rename Part c) to Part b) and replace the text with the following: The cement manufacturer |
| | shall furnish to the Engineer reports showing the results of the tests performed on the blast |
| | furnace slag cement used in the manufacturing of the Type IS(≤30) shipped to the project. |
| | |
| G 1 (* | 201 A1 DEOLUBE (ENTE |
| | 801.01 REQUIREMENTS |
| Number: | 4) |
| Part: | d) |
| | Rename Part d) to Part c) |
| | 801.01 REQUIREMENTS |
| Number: | 4) |
| Part: | e) |
| Revision: | Rename Part e) to Part d) and replace the text with the following: Use only one brand of Type |
| | IS(≤30) cement throughout the project, unless the Engineer approves otherwise. |
| G I di | 201 A1 DEOLUBEACENTO |
| | 801.01 REQUIREMENTS |
| Number: | 5) Livert and 5) and by Cillianian Toron II (5, 15). Postland livert and control of Course to ASTM. |
| Revision: | Insert part 5) as the following: Type IL(5-15), Portland-limestone cement, conforms to ASTM |
| C-l | C 595 and the following additional requirements: |
| | 801.01 REQUIREMENTS |
| Number: | 5) |
| Part: | a) Insert part a) as the following. The compute manufacturer shall furnish to the Engineer reports |
| Revision: | Insert part a) as the following: The cement manufacturer shall furnish to the Engineer reports |
| | showing the results of test performed on the limestone used in the manufacture of the Type IL cement shipped to the project. |
| Subsection: | 801.01 REQUIREMENTS |
| Number: | 5) |
| Part: | b) |
| Revision: | Insert part b) as the following: Use only one brand of Type IL cement throughout the project, |
| IXC VISIUII. | unless the Engineer approves a brand change in writing. |
| Subsection: | 801.01 REQUIREMENTS |
| Number: | 5) |
| Part: | c) |
| Revision: | Insert part c) as the following: The Type IL blended cement shall be an intimate and uniform |
| ACVISIUII: | blend produced by intergrinding of the Portland cement and limestone. |
| Subsection: | 804.01.02 Crushed Sand. |
| Revision: | Delete last sentence of the section. |
| 176.1121011; | Defend fast sentence of the section. |

| Subsection | 804.01.06 Slag. | | | |
|--------------------|---|--|--|--|
| Revision: | · · · · · · · · · · · · · · · · · · · | | | |
| Kevision. | Add subsection and following sentence. Provide blast furnace slag sand where permitted. The Department will allow steel slag sand | | | |
| | | | | |
| C-14' | only in asphalt surface applications. | | | |
| Subsection: | 1 | | | |
| Revision: | Replace the subsection with the following: | | | |
| | Provide natural, crushed, conglomerate, or blast furnace slag sand, with the addition of filler as | | | |
| | necessary, to meet gradation requirements. The Department will allow any combination of | | | |
| | natural, crushed, conglomerate or blast furnace slag sand when the combination is achieved | | | |
| | using cold feeds at the plant. The Engineer may allow other fine aggregates. | | | |
| | | | | |
| Subsection: | 1 | | | |
| Revision: | Replace the second sentence of the paragraph with the following: | | | |
| | Additionally, the material must have a minimum solubility of 99.0 percent when tested | | | |
| | according to AASHTO T 44 and PG 76-22 must exhibit a minimum recovery of 60 percent, | | | |
| | with a J_{NR} (non-recoverable creep compliance) between 0.1 and 0.5, when tested according to | | | |
| | AASHTO TP 70. | | | |
| Subsection: | 806.03.01 General Requirements. | | | |
| Table: | PG Binder Requirements and Price Adjustment Schedule | | | |
| Revision: | Replace the Elastic Recovery, % (3) (AASHTO T301) and all corresponding values in the table | | | |
| | with the following: | | | |
| | Test Specification 100% Pay 90% Pay 80% Pay 70% Pay 50% Pay | | | |
| | MSCR recovery, % ⁽³⁾ 60 Min. ≥58 56 55 54 <53 | | | |
| | (AASHTO TP 70) | | | |
| Subsection: | : 806.03.01 General Requirements. | | | |
| Table: | PG Binder Requirements and Price Adjustment Schedule | | | |
| Superscript | | | | |
| Revision: | Replace (3) with the following: | | | |
| | Perform testing at 64°C. | | | |
| Subsection | 808.07 Polypropylene Waterproofing Membrane. | | | |
| Revision: | Replace the paragraph and table with the following: Furnish a layered waterproofing | | | |
| ite vision. | membrane. The layers will consist of an internal puncture resistant woven polypropylene fabric | | | |
| | sandwiched between two rubberized mastic layers. The mastic will have a heavy polyethylene membrane attached on the top and the bottom mastic layer will be covered by a protective release film. | | | |
| | | | | |
| | | | | |
| Cubaction | 808.09 Acceptance. | | | |
| Revision: | Replace the reference to "KMIMS" in the second paragraph with SiteManager. | | | |
| | 811.10.04 Properties of the Coated Bar. | | | |
| Part: | * | | | |
| Revision: | B) Flexibility of Coating. Penlace the second sentence of the paragraph with the following: Ensure that the coated bars | | | |
| IVEA121011 | Replace the second sentence of the paragraph with the following: Ensure that the coated bars are capable of being bent to 180 degrees (after rebound) over a mandrel, without any visible | | | |
| | evidence of cracking the coating. | | | |
| Subsections | 813.04 Gray Iron Castings. | | | |
| Revision: | Replace the reference to "AASHTO M105" with "ASTM A48". | | | |
| Subsection: | 813.09.02 High Strength Steel Bolts, Nuts, and Washers. | | | |
| Number: | A) Bolts. | | | |
| | 1 ' | | | |
| Revision: | Delete first paragraph and "Hardness Number" Table. Replace with the following: A) Polts, Conform to ASTM A 225 (A ASUTO M164) or ASTM A 400 (A ASUTO 252) as | | | |
| | A) Bolts. Conform to ASTM A325 (AASHTO M164) or ASTM A490 (AASHTO 253) as | | | |
| | applicable. | | | |

| Subsection: | 814.04.02 Timber Guardrail Posts. |
|--------------------|---|
| Revision: | Third paragraph, replace the reference to "AWPA C14" with "AWPA U1, Section B, |
| | Paragraph 4.1". |
| Subsection: | 814.04.02 Timber Guardrail Posts. |
| Revision: | Replace the first sentence of the fourth paragraph with the following: |
| | Use any of the species of wood for round or square posts covered under AWPA U1. |
| Subsection: | 814.04.02 Timber Guardrail Posts. |
| Revision: | Fourth paragraph, replace the reference to "AWPA C2" with "AWPA U1, Section B, |
| | Paragraph 4.1". |
| Subsection: | 814.04.02 Timber Guardrail Posts. |
| Revision: | Delete the second sentence of the fourth paragraph. |
| Subsection: | 814.05.02 Composite Plastic. |
| Revision: | 1) Add the following to the beginning of the first paragraph: Select composite offset blocks |
| | conforming to this section and assure blocks are from a manufacturer included on the |
| | Department's List of Approved Materials. |
| | 2) Delete the last paragraph of the subsection. |
| Subsection: | 816.07.02 Wood Posts and Braces. |
| Revision: | First paragraph, replace the reference to "AWPA C5" with "AWPA U1, Section B, Paragraph |
| | 4.1". |
| Subsection: | 816.07.02 Wood Posts and Braces. |
| Revision: | Delete the second sentence of the first paragraph. |
| Subsection: | 818.07 Preservative Treatment. |
| Revision: | First paragraph, replace all references to "AWPA C14" with "AWPA U1, Section A". |
| | |
| Subsection: | 833.01.02 Sheeting Signs. |
| Revision: | Replace the second sentence with the following: Provide a thickness of 125 mils if any single |
| Ac vision. | edge dimension of the sign exceeds 3 feet. |
| Subsection: | 834.14 Lighting Poles. |
| Revision: | Replace the first sentence with the following: Lighting pole design shall be in accordance with |
| Tto vision. | loading and allowable stress requirements of the AASHTO Standard Specifications for |
| | Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with |
| | current interims, with the exception of the following: The Cabinet will waive the requirement |
| | stated in the first sentence of Section 5.14.6.2 – Reinforced Holes and Cutouts for high mast |
| | poles (only). The minimum diameter at the base of the pole shall be 22 inches for high mast |
| | poles (only). |
| | · · · · · · · · · · · · · · · · · · · |
| | 834.14.03 High Mast Poles. |
| Revision: | Remove the second and fourth sentence from the first paragraph. |
| | 834.14.03 High Mast Poles. |
| Revision: | Replace the third paragraph with the following: Provide calculations and drawings that are |
| | stamped by a Professional Engineer licensed in the Commonwealth of Kentucky. |
| | |
| | |

Subsection: Revision:

834.14.03 High Mast Poles.

Replace paragraph six with the following: Provide a pole section that conforms to ASTM A 595 grade A with a minimum yield strength of 55 KSI or ASTM A 572 with a minimum yield strength of 55 KSI. Use tubes that are round or 16 sided with a four inch corner radius, have a constant linear taper of .144 in/ft and contain only one longitudinal seam weld. Circumferential welded tube butt splices and laminated tubes are not permitted. Provide pole sections that are telescopically slip fit assembled in the field to facilitate inspection of interior

sections that are telescopically slip fit assembled in the field to facilitate inspection of interior surface welds and the protective coating. The minimum length of the telescopic slip splices shall be 1.5 times the inside diameter of the exposed end of the female section. Use longitudinal seam welds as commended in Section 5.15 of the AASHTO 2013 Specifications. The thickness of the transverse base shall not be less than 2 inches. Plates shall be integrally welded to the tubes with a telescopic welded joint or a full penetration groove weld with backup bar.

The handhole cover shall be removable from the handhole frame. One the frame side opposite the hinge, provide a mechanism on the handhole cover/frame to place the Department's standard padlock as specified in Section 834.25. The handhole frame shall have two stainless studs installed opposite the hinge to secure the handhole cover to the frame which includes providing stainless steel wing nuts and washers. The handhole cover shall be manufactured from 0.25 inch thick galvanized steel (ASTM A 153) and have a neoprene rubber gasket that is permanently secured to the handhole frame to insure weather-tight protection. The hinge shall be manufactured from 7-guage stainless steel to provide adjustability to insure weather-tight fit for the cover. The minimum clear distance between the transverse plate and the bottom opening of the handhole shall not be less than the diameter of the bottom tube of the pole but needs to be at least 15 inches. Provide products that are hot-dip galvanized to the requirements of either ASTM A123 (fabricated products) or ASTM A 153 (hardware items).

Subsection:

834.16 ANCHOR BOLTS.

Revision:

Insert the following sentence at the beginning of the paragraph: The anchor bolt design shall follow the NCHRP Report 494 Section 2.4 and NCHRP 469 Appendix A Specifications.

Subsection:

834.17.01 Conventional.

Revision:

Add the following sentence after the second sentence: Provide a waterproof sticker mounted on the bottom of the housing that is legible from the ground and indicates the wattage of the fixture by providing the first two numbers of the wattage.

Subsection

Subsection: | 834.21.01 Waterproof Enclosures.

Revision:

Replace the last five sentences in the second paragraph with the following sentences: Provide a cabinet door with a louvered air vent, filter-retaining brackets and an easy to clean metal filter. Provide a cabinet door that is keyed with a factory installed standard no. 2 corbin traffic control key. Provide a light fixture with switch and bulb. Use a 120-volt fixture and utilize a L.E.D. bulb (equivalent to 60 watts minimum). Fixture shall be situated at or near the top of the cabinet and illuminate the contents of the cabinet. Provide a 120 VAC GFI duplex receptacle in the enclosure with a separate 20 amp breaker.

| Subsection | 835.07 Traffic Poles. |
|--------------------------|--|
| Revision: | Replace the first sentence of the first paragraph with the following: Pole diameter and wall thickness shall be calculated in accordance with the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims. |
| Revision: | 835.07 Traffic Poles. *Replace the first sentence of the fourth paragraph with the following: Ensure transverse plates have a thickness ≥ 2 inches. *Add the following sentence to the end of the fourth paragraph: The bottom pole diameter shall not be less than 16.25 inches. |
| Subsection: Revision: | 835.07 Traffic Poles. Replace the third sentence of the fifth paragraph with the following: For anchor bolt design, pole forces shall be positioned in such a manner to maximize the force on any individual anchor bolt regardless of the actual anchor bolt orientation with the pole. |
| Subsection: Revision: | 835.07 Traffic Poles. Replace the first and second sentence of the sixth paragraph with the following: The pole handhole shall be 25 inches by 6.5 inches. The handhole cover shall be removable from the handhole frame. On the frame side opposite the hinge, provide a mechanism on the handhole cover/frame to place the Department's standard padlock as specified in Section 834.25. The handhole frame shall have two stainless studs installed opposite the hinge to secure the handhole cover to the frame which includes providing stainless steel wing nuts and washers. The handhole cover shall be manufactured from 0.25 inch thick galvanized steel (ASTM 153) and have a neoprene rubber gasket that is permanently secured to the handhole frame to insure weather-tight protection. The hinge shall be manufactured from 7 gauge stainless steel to provide adjustability to insure a weather-tight fit for the cover. The minimum clear distance between the transverse plate and the bottom opening of the handhole shall not be less than the diameter of the bottom tube but needs to be at least 12 inches. |
| Subsection: Revision: | 835.07 Traffic Poles. *Replace the first sentence of the last paragraph with the following: Provide calculations and drawings that are stamped by a Professional Engineer licensed in the Commonwealth of Kentucky. *Replace the third sentence of the last paragraph with the following: All tables referenced in 835.07 are found in the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 2013-6th Edition with current interims. |
| Subsection: Revision: | 835.07.01 Steel Strain Poles. Replace the second sentence of the second paragraph with the following: The detailed analysis shall be certified by a Professional Engineer licensed in the Commonwealth of Kentucky. |
| Subsection: Revision: | 835.07.01 Steel Strain Poles. Replace number 7. after the second paragraph with the following: 7. Fatigue calculations should be shown for all fatigue related connections. Provide the corresponding detail, stress category and example from table 11.9.3.1-1. |
| Subsection: Revision: | 835.07.02 Mast Arm Poles. Replace the second sentence of the fourth paragraph with the following: The detailed analysis shall be certified by a Professional Engineer licensed in the Commonwealth of Kentucky. |

| Subsection: | 835.07.02 Mast Arm Po | oles. | | | |
|--------------------|---|--|-----------------------------------|--|--|
| Revision: | Replace number 7) after the fourth paragraph with the following: 7) Fatigue calculations | | | | |
| | | fatigue related connections. Provide | | | |
| | category and example from table 11.9.3.1-1. | | | | |
| Subsection: | 835.07.03 Anchor Bolts | | | | |
| Revision: | Add the following to the end of the paragraph: There shall be two steel templates (one can be | | | | |
| | | t of the anchor bolt when designed in | | | |
| | Templates shall be contained within a 26.5 inch diameter. All templates shall be fully | | | | |
| | galvanized (ASTM A 153). | | | | |
| Subsection: | 835.16.05 Optical Units | | | | |
| Revision: | Replace the 3rd paragra | | | | |
| | | ducts can be found on the following v | website: http://www.intertek.com. | | |
| Subsection: | 835.19.01 Pedestrian D | | • | | |
| Revision: | | ce with the following: Provide a four | holed pole mounted aluminum | | |
| | rectangular housing tha | t is compatible with the pedestrian de | etector. | | |
| Subsection: | 843.01.01 Geotextile Fa | abric. | | | |
| Table: | TYPE I FABRIC GEO | TEXTILES FOR SLOPE PROTECT | ION AND CHANNEL LINING | | |
| Revision: | Add the following to th | e chart: | | | |
| | Property | Minimum Value ⁽¹⁾ | Test Method | | |
| | CBR Puncture (lbs) | 494 | ASTM D6241 | | |
| | Permittivity (1/s) | 0.7 | ASTM D4491 | | |
| | | , | 11011112 1 101 | | |
| Subsection: | 843.01.01 Geotextile Fa | abric. | | | |
| Table: | TYPE II FABRIC GEOTEXTILES FOR UNDERDRAINS | | | | |
| Revision: | Add the following to the chart: | | | | |
| | Property | Minimum Value ⁽¹⁾ | Test Method | | |
| | CBR Puncture (lbs) | 210 | ASTM D6241 | | |
| | Permittivity (1/s) | 0.5 | ASTM D4491 | | |
| | , , | | | | |
| | 843.01.01 Geotextile Fa | | | | |
| Table: | | OTEXTILES FOR SUBGRADE OR | EMBANKMENT | | |
| | STABILIZATION | | | | |
| Revision: | Add the following to th | e chart: | | | |
| | <u>Property</u> | Minimum Value ⁽¹⁾ | Test Method | | |
| | CBR Puncture (lbs) | 370 | ASTM D6241 | | |
| | Permittivity (1/s) | 0.05 | ASTM D4491 | | |
| Subsection: | 843.01.01 Geotextile Fa | abric. | | | |
| Table: | TYPE IV FABRIC GE | OTEXTILES FOR EMBANKMENT | DRAINAGE BLANKETS AND | | |
| | PAVEMENT EDGE DRAINS | | | | |
| Revision: | Add the following to th | | | | |
| | Property | Minimum Value ⁽¹⁾ | Test Method | | |
| | CBR Puncture (lbs) | 309 | ASTM D6241 | | |
| | Permittivity (1/s) | 0.5 | ASTM D4491 | | |
| | 1 crimunity (1/3) | 0.5 | ASTIVI D++31 | | |

Subsection: 843.01.01 Geotextile Fabric.

Table: TYPE V HIGH STRENGTH GEOTEXTILE FABRIC

Revision: Make the following changes to the chart:

PropertyMinimum Value(1)Test MethodCBR Puncture (lbs)618ASTM D6241

CBR Puncture (lbs) 618 ASTM D6241 Apparent Opening Size U.S. #40⁽³⁾ ASTM D4751

(3) Maximum average roll value.

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SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

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

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

2.0 MATERIALS.

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

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

2.2 Sign and Controls. All signs must:

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

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

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

*Insert numerals as directed by the Engineer.

Add other messages during the project when required by the Engineer.

2.3 Power.

- Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.
- **3.0 CONSTRUCTION.** Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

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

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

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

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

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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:

CodePay ItemPay Unit02671Portable Changeable Message SignEach

Effective June 15, 2012

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PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

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

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

I. APPLICATION

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

II. NONDISCRIMINATION OF EMPLOYEES

AN ACT OF THE KENTUCKY GENERAL ASSEMBLY TO PREVENT DISCRIMINATION IN EMPLOYMENT KRS CHAPTER 344 EFFECTIVE JUNE 16, 1972

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

- 1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (between forty and seventy); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age (between forty and seventy). The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- 2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, disability or age (between forty and seventy), except that such notice or advertisement may indicate a preference, limitation, or specification based on religion, or national origin when religion, or national origin is a bona fide occupational qualification for employment.
- 3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual

because of his race, color, religion, national origin, sex, disability or age (between forty and seventy), in admission to, or employment in any program established to provide apprenticeship or other training.

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

III. PAYMENT OF PREDETERMINED MINIMUM WAGES

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

IV. STATEMENTS AND PAYROLLS

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

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

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

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

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

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

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

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

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

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

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

Revised 2-16-95

EXECUTIVE BRANCH CODE OF ETHICS

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

KRS 11A.040 (6) provides:

No present or former public servant shall, within six (6) months of following termination of his office or employment, accept employment, compensation or other economic benefit from any person or business that contracts or does business with the state in matters in which he was directly involved during his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved in state government. This subsection shall not prohibit the performance of ministerial functions, including, but not limited to, filing tax returns, filing applications for permits or licenses, or filing incorporation papers.

KRS 11A.040 (8) states:

A former public servant shall not represent a person in a matter before a state agency in which the former public servant was directly involved, for a period of one (1) year after the latter of:

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

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

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

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

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, Room 136, Capitol Building, 700 Capitol Avenue, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Kentucky Equal Employment Opportunity Act of 1978

The requirements of the Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) shall apply to this Contract. The apparent low Bidder will be required to submit EEO forms to the Division of Construction Procurement, which will then forward to the Finance and Administration Cabinet for review and approval. No award will become effective until all forms are submitted and EEO/CC has certified compliance. The required EEO forms are as follows:

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

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

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

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

General Decision Number: KY160101 07/08/2016 KY101

Superseded General Decision Number: KY20150101

State: Kentucky

Construction Type: Highway

Counties: Boone, Campbell, Kenton and Pendleton Counties in

Kentucky.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| Modification | Number | Publication Date |
|--------------|--------|------------------|
| 0 | | 01/08/2016 |
| 1 | | 02/19/2016 |
| 2 | | 07/01/2016 |
| 3 | | 07/08/2016 |

BRKY0002-005 06/01/2014

| | Rates | Fringes |
|-------------------------|-----------|---------|
| BRICKLAYER | .\$ 26.50 | 11.17 |
| BROH0001-005 06/01/2008 | | |
| | Rates | Fringes |

CEMENT MASON/CONCRETE FINISHER...\$ 25.75 8.60

CARP0698-001 05/01/2014

BOONE, CAMPBELL, KENTON & PENDLETON COUNTIES:

| I | Rates | Fringes |
|-------------------------------------|-------|---------------|
| Carpenter & Piledrivermen\$ Diver\$ | | 14.59 9.69 |
| | | |

* ELEC0212-007 06/06/2016

| | Rates | Fringes |
|-----------------------------------|----------------------|----------------------------------|
| ELECTRICIAN | \$ 27.47 | 17.13 |
| ELEC0212-013 12/01/2014 | | |
| | Rates | Fringes |
| Sound & Communication Technician | • | 10.08 |
| ENGI0018-013 05/01/2015 | | |
| | Rates | Fringes |
| POWER EQUIPMENT OPERATOR GROUP 1 | \$ 33.22 \$ 32.18 | 14.25 14.25 14.25 14.24 |

14.25

14.25

14.25

OPERATING ENGINEER CLASSIFICATIONS

GROUP 5.....\$ 25.54

GROUP 6.....\$ 33.59

GROUP 7.....\$ 33.84

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; & Wheel Excavator

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 500,000 ft. lbs. thrust); Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation

Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); & Vermeer type Concrete Saw

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); & Welding Machines

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway) except Masonry); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift (highway); Form Trencher; Hydro Hammer; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); & Vibratory Compactor with Integral Power

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt); Generator; Masonry Fork Lift; Inboard-Outboard Motor Boat Launch; Masonry Fork Lift; Oil Heater (asphalt plant); Oiler; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; & VAC/ALLS

GROUP 6 - Master Mechanic & Boom from 150 to 180

GROUP 7 - Boom from 180 and over

IRON0044-008 06/01/2015

| | Rates | Fringes | |
|-------------------------|-------|----------------|--|
| Ironworkers: | | | |
| Fence Erector | • | 19.15 19.15 | |
| IRON0372-004 06/15/2015 | | | |
| | | | |

Rates Fringes
IRONWORKER, REINFORCING......\$ 27.00 19.00

------LABO0189-004 07/01/2016

PENDLETON COUNTY:

| | 1 | Rates | Fringes |
|---------|-----|-------|---------|
| LABORER | | | |
| GROUP | 1\$ | 22.75 | 12.84 |
| GROUP | 2\$ | 23.00 | 12.84 |
| GROUP | 3\$ | 23.05 | 12.84 |
| GROUP | 4\$ | 23.65 | 12.84 |

LABORERS CLASSIFICATIONS

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

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

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

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

BOONE, CAMPBELL & KENTON COUNTIES:

Rates Fringes

^{*} LABO0265-009 05/01/2016

LABORER

| GF | ROUP 1 | 29.22 | 10.35 |
|----|--------|-------|-------|
| GF | ROUP 2 | 29.39 | 10.35 |
| GF | ROUP 3 | 29.72 | 10.35 |
| GF | ROUP 4 | 30.17 | 10.35 |

LABORER CLASSIFICATIONS

GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing Applicator; Dump Man (Batch Truck); Guardrail and Fence Installer; Joint Setter; Laborer (Construction); Landscape Laborer; Highway Lighting Worker; Signalization Worker; Mesh Handlers & Placer; Right-of-way Laborer; Riprap Laborer & Grouter; Scaffold Erector; Seal Coating; Surface Treatment or Road Mix Laborer; Sign Installer; Slurry Seal; Utility Man; Bridge Man; Handyman; Waterproofing Laborer; Flagperson; Hazardous Waste (level D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Skid Steer; Asphalt Raker; Concrete Puddler; Kettle Man (Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning); Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander; Wrencher (Mechanical Joints & Utility Pipeline); Yarner; Hazardous Waste (level A); Concrete Specialist; Concrete Crew in Tunnels (With Air-pressurized - \$1.00 premium); Curb Setter & Cutter; Grade Checker; Utility Pipeline Tapper; Waterline; and Caulker

GROUP 4 - Miner; & Gunite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD \$1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

PAIN0012-016 05/01/2015

|) | Rates | Fringes |
|---------------------------|-------|---------|
| PAINTER | | |
| Bridge\$ | 24.39 | 9.06 |
| Bridge Equipment Tender | | |
| and Containment Builder\$ | 20.73 | 9.06 |
| Brush & Roller\$ | 23.39 | 9.06 |

| Sandblasting & Water | | |
|----------------------|----------|------|
| Blasting | \$ 24.14 | 9.06 |
| Spray | \$ 23.89 | 9.06 |
| | | |

PLUM0392-008 06/01/2014

| | Rates | Fringes | |
|---------------------------|----------|---------|--|
| PLUMBER | \$ 29.80 | 17.79 | |
| 2777770010 161 00/05/1006 | | | |

Rates

Fringes

SUKY2010-161 02/05/1996

| Truck drivers: | |
|-----------------|------|
| GROUP 1\$ 15.85 | 4.60 |
| GROUP 2\$ 16.29 | 4.60 |

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Driver

GROUP 2 - Euclid Wagon; End Dump; Lowboy; Heavy Duty Equipment; Tractor-Trailer Combination; & Drag

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198

indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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.

END OF GENERAL DECISION

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

These rates are listed pursuant to the Kentucky Determination No. CR-16-IV-HWY dated July 1, 2016.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

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

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

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

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

OVERTIME:

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

Director Division of Construction Procurement Frankfort, Kentucky 40622 502-564-3500

PART IV

INSURANCE

Contract ID: 162163 Page 111 of 113

INSURANCE

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

- 1) Commercial General Liability-Occurrence form not less than \$2,000,000 General aggregate, \$2,000,000 Products & Completed Aggregate, \$1,000,000 Personal & Advertising, \$1,000,000 each occurrence.
- 2) Automobile Liability- \$1,000,000 per accident
- 3) Employers Liability:
 - a) \$100,000 Each Accident Bodily Injury
 - b) \$500,000 Policy limit Bodily Injury by Disease
 - c) \$100,000 Each Employee Bodily Injury by Disease
- 4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
 - a) "policy contains no deductible clauses."
 - b) "policy contains _____ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."
- 5) KENTUCKY WORKMEN'S COMPENSATION INSURANCE. The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

PART V

BID ITEMS

Page 1 of 1

162163

PROPOSAL BID ITEMS

Report Date 8/1/16

Section: 0001 - PAVING

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|------------|-----|-------------------------------------|-----------|------|-----------|----|-------------|
| 0010 | 00190 | | LEVELING & WEDGING PG64-22 | 140.00 | TON | | \$ | |
| 0020 | 01810 | | STANDARD CURB AND GUTTER | 71.00 | LF | | \$ | |
| 0030 | 01812 | | REMOVE CURB AND GUTTER | 71.00 | LF | | \$ | |
| 0040 | 02562 | | TEMPORARY SIGNS | 720.00 | SQFT | | \$ | |
| 0050 | 02650 | | MAINTAIN & CONTROL TRAFFIC (FD05) | 1.00 | LS | | \$ | |
| 0060 | 02650 | | MAINTAIN & CONTROL TRAFFIC (FE01) | 1.00 | LS | | \$ | |
| 0070 | 02671 | | PORTABLE CHANGEABLE MESSAGE SIGN | 2.00 | EACH | | \$ | |
| 0080 | 02676 | | MOBILIZATION FOR MILL & TEXT (FD05) | 1.00 | LS | | \$ | |
| 0090 | 02677 | | ASPHALT PAVE MILLING & TEXTURING | 5,635.00 | | | \$ | |
| 0100 | 02720 | | SIDEWALK-4 IN CONCRETE | • | SQYD | | \$ | |
| 0110 | 02775 | | ARROW PANEL | 2.00 | EACH | | \$ | |
| 0120 | 03240 | | BASE FAILURE REPAIR | 85.00 | SQYD | | \$ | |
| 0130 | 04793 | | CONDUIT-1 1/4 IN | 255.00 | LF | | \$ | |
| 0140 | 04795 | | CONDUIT-2 IN | 163.00 | LF | | \$ | |
| 0150 | 04811 | | ELECTRICAL JUNCTION BOX TYPE B | 18.00 | EACH | | \$ | |
| 0160 | 04830 | | LOOP WIRE | 11,526.00 | LF | | \$ | |
| 0170 | 04850 | | CABLE-NO. 14/1 PAIR | 3,949.00 | LF | | \$ | |
| 0180 | 04895 | | LOOP SAW SLOT AND FILL | 4,556.00 | LF | | \$ | |
| 0190 | 06510 | | PAVE STRIPING-TEMP PAINT-4 IN | 37,455.00 | LF | | \$ | |
| 0200 | 06514 | | PAVE STRIPING-PERM PAINT-4 IN | 37,455.00 | LF | | \$ | |
| 0210 | 06565 | | PAVE MARKING-THERMO X-WALK-6 IN | 3,594.00 | LF | | \$ | |
| 0220 | 06568 | | PAVE MARKING-THERMO STOP BAR-24IN | 945.00 | LF | | \$ | |
| 0230 | 06573 | | PAVE MARKING-THERMO STR ARROW | 4.00 | EACH | | \$ | |
| 0240 | 06574 | | PAVE MARKING-THERMO CURV ARROW | 54.00 | EACH | | \$ | |
| 0250 | 06575 | | PAVE MARKING-THERMO COMB ARROW | 7.00 | EACH | | \$ | |
| 0260 | 06576 | | PAVE MARKING-THERMO ONLY | 2.00 | EACH | | \$ | |
| 0270 | 06600 | | REMOVE PAVEMENT MARKER TYPE V | 534.00 | EACH | | \$ | |
| 0280 | 10020NS | | FUEL ADJUSTMENT | 7,526.00 | DOLL | \$1.00 | \$ | \$7,526.00 |
| 0290 | 10030NS | | ASPHALT ADJUSTMENT | 18,903.00 | DOLL | \$1.00 | \$ | \$18,903.00 |
| 0300 | 22906ES403 | | CL3 ASPH SURF 0.38A PG64-22 | 4,695.00 | TON | | \$ | |
| 0310 | 23158ES505 | | DETECTABLE WARNINGS (NEW) | 512.00 | SQFT | | \$ | |
| 0320 | 24489EC | | INLAID PAVEMENT MARKER | 335.00 | EACH | | \$ | |
| 0330 | 24625EC | | REMOVE AND REINSTALL QWICK CURB | 580.00 | LF | | \$ | |

Section: 0002 - DEMOBILIZATION

| LINE | BID CODE | ALT DESCRIPTION | QUANTITY | UNIT | UNIT PRIC FP | AMOUNT |
|------|----------|-----------------|----------|------|--------------|--------|
| 0340 | 02569 | DEMOBILIZATION | 1.00 | LS | \$ | |