CALL NO. 403

CONTRACT ID. 172115

MASON COUNTY

FED/STATE PROJECT NUMBER 081GR17P024-FD05

DESCRIPTION US 62 AND US 68X IN MASON COUNTY

WORK TYPE ASPHALT RESURFACING

PRIMARY COMPLETION DATE 10/15/2017

LETTING DATE: May 26,2017

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME May 26,2017. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

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

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PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 09

CONTRACT ID - 172115

081GR17P024-FD05

COUNTY - MASON

PCN - MP08100621701
FD05 081 0062 012-015

MAYSVILLE-WASHINGTON ROAD (US 62) (MP 12.672) FROM US 68X-KY 1236 EXTENDING EAST TO KY 9 (MP 14.387), A DISTANCE OF 01.72 MILES.ASPHALT RESURFACING

GEOGRAPHIC COORDINATES LATITUDE 38:37:22.00 LONGITUDE 83:48:24.00

PCN - MP081068X1701
FD05 081 068X 000-002

MAYSVILLE-LEXINGTON ROAD (US 68X) (MP 0.113) FROM 0.113 MILES EAST OF US 68 EXTENDING EAST TO US 62-KY 1236 (MP 1.445), A DISTANCE OF 01.33 MILES.ASPHALT RESURFACING

GEOGRAPHIC COORDINATES LATITUDE 38:36:10.00 LONGITUDE 83:48:41.00

COMPLETION DATE(S):

COMPLETED BY 10/15/2017 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.

SURFACING AREAS

US 62

The Department estimates the mainline surfacing width to be 66 feet.

The Department estimates the total mainline area to be surfaced to be 69,725 square yards.

The Department estimates the shoulder width to be 9 feet on each side.

The Department estimates the total shoulder area to be surfaced to be 18,110 square yards.

US 68X

The Department estimates the mainline surfacing width to be 26-66 feet.

The Department estimates the total mainline area to be surfaced to be 32,083 square yards.

The Department estimates the shoulder width to be 9 feet on each side.

The Department estimates the total shoulder area to be surfaced to be 14,066 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.

DGA BASE FOR SHOULDERS

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

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

INCIDENTAL SURFACING

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

FUEL AND ASPHALT PAY ADJUSTMENT

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

OPTION A

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

SPECIAL NOTE FOR FULL DEPTH JOINT REPAIR
FD05 081 062 012-015
KY 62

Repair locations listed on the summary are approximate only. The Engineer will determine actual repair locations and dimensions at the time of construction. Other locations may be determined by the Engineer at the time of construction in addition to those listed in the summary. Prior to overall milling and/or leveling and wedging, excavate the designated full depth joint repair areas by milling asphalt and/or saw cutting and removing concrete to a depth 18 inches below the existing asphalt pavement surface level to the bottom of the underlying concrete. 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 6 inches of Crushed Stone Base and 12 inches of Class 2 Asphalt Base 1.00 D PG64-22. Compact the asphalt base to the compaction required in Section 403.3.10. Seal the asphalt base with leveling and wedging. Perform all 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 place mill or place new asphalt surface over repaired base failure areas until a minimum of 14 calendar days have elapsed after placement of the asphalt base. After a minimum of 14 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.

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

SPECIAL NOTE FOR JOINT REPAIR
FD05 081 068X 000-002
US 68X

It is proposed to construct joint repairs at all existing transverse joint locations. It will be the responsibility of the Contractor to coordinate with the Engineer to mark and log all existing transverse joint locations. There will also be joint repair locations where there is no existing saw joint. These locations will be determined by the Engineer at the time of construction. Prior to mainline leveling and wedging and placing the asphalt scratch course, perform the designated joint repairs by milling 4' wide across the pavement perpendicular to the centerline to a depth 2 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.

After milling joint repair areas, place 1" Class 2 Asphalt Surf 0.38D PG64-22 in joint repair areas. Compact the asphalt surface to the compaction required in Section 403.03.10. After placing 1" of asphalt surface in joint repair sections, place 24" reflective crack suppressive membrane and cover the membrane with 1" Class 2 Asphalt Surf 0.38D PG64-22. Compact the asphalt surface to the compaction required in Section 403.03.10. Perform all joint 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 mainline asphalt surface over joint repair areas until a minimum of 7 calendar days have elapsed after placement of the asphalt surface. After a minimum of 7 calendar days and when the Engineer determines the joint 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 price per ton of CL2 Asph Surf 0.38D PG64-22 and per ton of Milling and Texturing as full compensation for all labor, materials, equipment, and incidentals for removing pavement and disposing of the materials, furnishing and placing reflective crack suppressive membrane, furnishing and placing asphalt surface, and all other items necessary to complete the work according to these notes to the satisfaction of the Engineer.

SPECIAL NOTE FOR MOUNTABLE MEDIAN

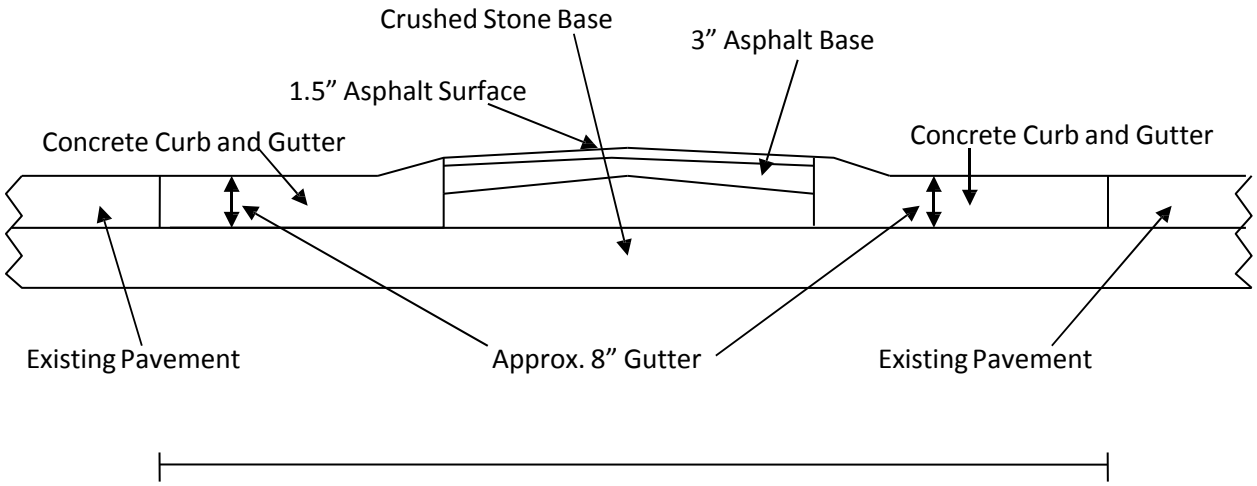
Remove the existing mountable median as shown on the median schematic. The median removal will also include the removal of the entire median concrete curb and gutter. Completely remove the median between the travel lanes including both sections of concrete curb and gutter and the asphalt section between. Remove the median to the bottom of the median curb and gutter. The Department has determined this depth to be approximately 8" below the top of the existing travel lane surface. However, conditions may vary and the actual depth of the median removal will be determined by the Engineer at the time of construction.

Following mountable median removal, place 4" of crushed stone base in the excavated median followed by 4" Class 2 Asphalt Base 1.00D PG 64-22. Compact the asphalt base to the compaction required in Section 403.03.10. Following placement of the crushed stone base and the asphalt base, the top of asphalt base shall be flush with the existing surface in all travel lanes. If a greater excavation depth is required to reach the bottom of the median curb and gutter, the additional depth shall be filled with crushed stone base. The top of the asphalt base shall be flush with the existing surface in all travel lanes prior to asphalt surfacing.

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.

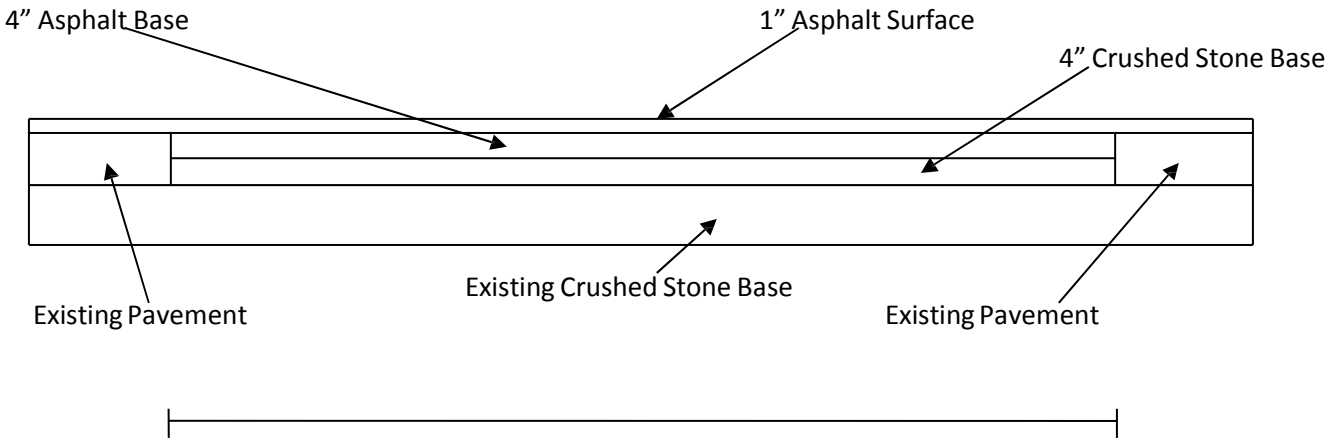
Accept payment at the Contract unit price per square yard for "Remove Mountable Median" and at the Contract unit prices per ton for "Crushed Stone Base" and "Asphalt Base" for all labor, materials, equipment, and incidentals for removing pavement and disposing of the materials, removing concrete and disposing of the materials, furnishing and placing crushed stone base, furnishing and placing asphalt base, and all other items necessary to complete the work according to these notes to the satisfaction of the Engineer.

EXISTING MOUNTABLE MEDIAN TYPICAL SECTION



Existing Mountable Median to Be Removed
Width: 8 FT-16 FT

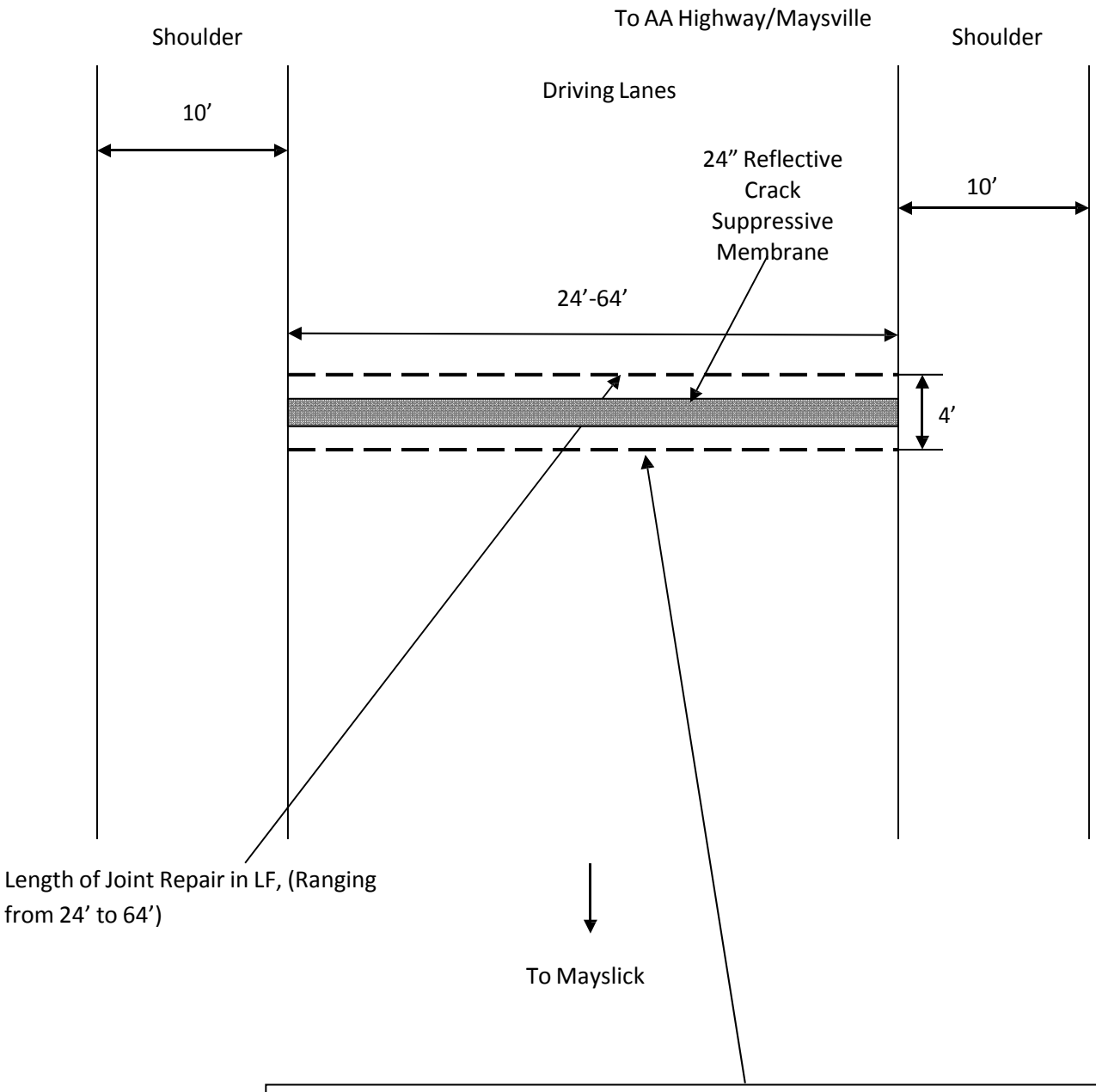
PROPOSED MEDIAN TYPICAL SECTION



Median Section after Removal of Mountable Median
Width: 8 FT-16 FT

Joint Repair Schematic

FD05 081 068X 000-002



Mill 4’ Across US 62 Perpendicular to Centerline. Mill 2” Deep, Place 1” CL2 ASPH SURF 0.38D PG64-22, Place 24” Reflective Crack Suppressive Membrane, and Place 1” CL2 ASPH SURF 0.38D PG64-22. Accept payment at the Contract unit price per ton of CL2 ASPH SURF 0.38D PG64-22 and per ton of Milling and Texturing as full compensation for all labor, materials, equipment, and incidentals for removing pavement and disposing of materials, furnishing and placing reflective crack suppressive membrane, and furnishing and placing asphalt surface. Do not mill or place new mainline leveling/wedging, asphalt scratch course, or surface over joint repair locations until a minimum of 7 days have elapsed after joint repairs have been completed. After a minimum of 7 calendar days and when the Engineer determines the joint repair areas have sufficiently stabilized, begin leveling/wedging, scratch course, and resurfacing operations.

SPECIAL NOTE FOR FINAL PAVEMENT STRIPING

On resurfacing projects involving 2-lane roads, the contractor shall locate by measurement the true geometric center of the road, and mark the true center prior to final permanent striping. The permanent centerline marking shall be placed at this true center, and not necessarily at the pavement joint. Edgelines shall be measured outward from the true centerline according to the dimensions shown on the typical sections and placed accordingly.

Where curve widening exists, the location of the centerline and edgeline striping shall be determined by the engineer, and these lines shall be marked prior to permanent striping.

On multi-lane roads, or 2-lane roads where additional lanes occur, the striping shall be determined by the engineer.

SPECIAL NOTE FOR MILL AND INLAY SECTIONS

Mill and inlay locations listed on the summary are approximate only. The Engineer will determine actual mill and inlay locations and dimensions at the time of construction. Prior to leveling and wedging, mill the designated mill and inlay areas a depth 2 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.

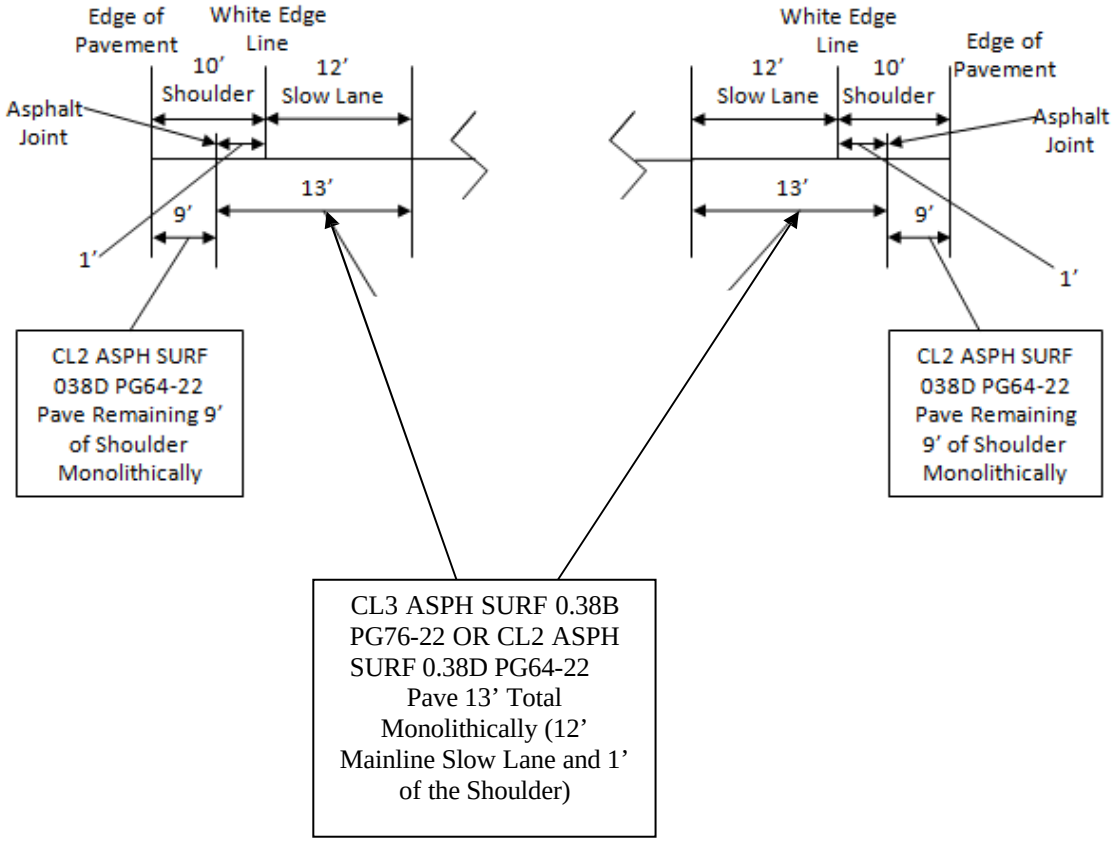
After milling, place 2" Leveling and Wedging in the milled areas. Compact the asphalt leveling and wedging to the compaction required in Section 403.03.10. Complete all mill and inlay sections in such a manner that removal and replacement are completed on the same day. Do this work as one of the Contractor's first operations in order to allow further compaction by traffic. Do not mill or place new asphalt surface over mill and inlay areas until a minimum of 7 calendar days have elapsed after placement of the asphalt leveling and wedging. After a minimum of 7 calendar days and when the Engineer determines the mill and inlay areas have sufficiently stabilized, begin milling and/or resurfacing operations.

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 ton for "Asphalt Pavement Milling and Texturing" and "Leveling and Wedging" as full compensation for all labor, materials, equipment, and incidentals for removing pavement and disposing of the materials, furnishing and placing asphalt leveling and wedging, and all other items necessary to complete the work according to these notes to the satisfaction of the Engineer.

SPECIAL NOTE FOR PROPSED MAINLINE/SHOULDER SURFACE ASPHALT JOINT

Pave 1’ of the shoulder monolithically with each outside 12’ driving lane utilizing the mainline asphalt mix (CL3 ASPH SURF 0.38B PG76-22 or CL2 ASPH SURF 0.38D PG76-22, as applicable). It is the intent of the Department to move the edge line asphalt joint 1’ further onto the shoulder and away from traffic. The proposed striping locations will be the same as the existing locations to provide a 12’ driving lane width. See the diagram below for more information.



SPECIAL NOTE FOR REFLECTIVE CRACK SUPPRESSION (RCS) MEMBRANE

1. DESCRIPTION. This product is a high-strength, essentially impermeable, self-adhesive membrane that serves as a stress-relief layer designed to reduce reflective cracking in asphalt pavement overlays from existing cracks or joints in the underlying asphalt or concrete pavement. It is a four-part geo-composite consisting of flexible, high-density asphalt mastic between layers of woven and non-woven heat-resistant polyester fabric. The membrane is held in place by a polymer-modified asphalt self-adhesive layer on the bottom of the membrane with a removable release liner. The membrane is placed directly on distressed areas of the asphalt or concrete pavement after joint repair sections have been milled a depth of 2".

Unless otherwise noted, Section references herein are to the Department's *Standard Specifications for Road and Bridge Construction, current edition*. All applicable portions of the Department's *Standard Specifications* apply unless specifically modified herein.

2. MATERIALS AND PERSONNEL.

2.1 RCS Membrane. Provide documentation that certifies the membrane conforms to the requirements in the following table.

Property	Specification	Test Procedure
Thickness, in.	0.080-0.115	ASTM D 1777
Cold Flexibility @ 32°F	Pass	ASTM D 146 (modified)
Tensile Strength, psi	2000 min.	ASTM D 412, Die C
Elongation, %	20 min.	ASTM D 412, Die C
Brittleness	Pass	ASTM D 517
Mastic Softening Point, °F	210 in.	ASTM D 36
Puncture Resistance, lb	450 min.	ASTM E 154
Absorption, %	1 max.	ASTM D 517

Crafco Inc. PavePrep TSA or an equivalent membrane is acceptable. At least two weeks prior to installation of the membrane, provide a sample to the Division of Materials for analysis of selected properties.

2.2 Asphalt Primer. The Department will not require primer on an unmilled surface if the ambient temperature is above 70°F but will require primer on all other applications. Refer to the RCS membrane manufacturer's recommendations for appropriate primer materials.

2.3 Crack Sealant. Use a hot-applied crack sealant that conforms to Subsection 807.03.01 or a silicone joint sealant that conforms to Subsection 807.03.05 to seal cracks and joints present in the existing pavement.

2.4 PG Binder. As recommended by the RCS membrane manufacturer to seal small punctures and slits present in the membrane after application, use PG 64-22 binder that conforms to Subsection 806.03.

2.5 Preconstruction Meeting. At least two weeks prior to the anticipated start of the project, the Department will schedule a preconstruction meeting with the contractor to discuss the handling and installation of the RCS membrane.

2.4 RCS Membrane Representative. Ensure a technical representative from the supplier of the RCS membrane available for consultation.

3. CONSTRUCTION.

3.1 Surface Preparation. After milling 2" at joint repair locations and immediately prior to applying the RCS membrane, thoroughly remove all vegetation, loose materials, dirt, mud, visible moisture, and other objectionable materials from the surface. As directed by the Engineer, fill joints wider than 0.25 in. with a crack sealant conforming to Section 2.3 of this note. Patch cracks, joints, or other voids and depressions over 2 in. wide level with the surface using an approved asphalt mixture.

3.2 Application of RCS Membrane.

3.2.1 General. Apply the membrane according to the manufacturer's recommendations. To apply the membrane, remove the release liner to expose the self-adhesive layer to the pavement, and then pressure-roll to secure the membrane in place.

Store the membrane in a dry area over 50°F for at least 12 hours prior to use. Ensure that the minimum surface temperature of the pavement is 50°F prior to installation. Do not install this material if moisture is apparent on the pavement or membrane.

Refer to the manufacturer's recommendations concerning the appropriate membrane width. Apply the membrane such that it is centered over the crack. Transverse joint repairs will require a width of 48 in. Extremely distressed areas may require other sizes.

3.2.2 Equipment. Provide proper equipment to unroll the material and apply enough tension to prevent wrinkling of the membrane.

3.2.3 Bonding and Joints. Pressure-roll each section of membrane a minimum of three times to ensure an adequate bond with the underlying surface. If vibratory rollers are used, set the amplitude low and the frequency high according to the controls for the roller(s) utilized. Consult the manufacturer of the RCS membrane for specific roller settings. Use pneumatic rollers for milled surfaces.

See the manufacturer's recommendations for the appropriate rollers for other applications.

At joints in the membrane, "butt" the product strips together. Seal these joints with PG 64-22 binder conforming to Section 2.4 of this note and applied 1 to 2 in. wide to ensure waterproofing.

3.2.4 Appearance. After final rolling, the RCS membrane surface texture should be “tight.” If blisters occur, puncture and press them into place. Slit and re-adhere wrinkles less than 3/8 in. wide. Seal small slits and punctures with PG 64-22 binder conforming to Section 2.4 of this note. Remove deformations larger than 3/8 in. wide, and patch them using standard installation methods as provided in this note. Seal all patch edges with PG 64-22 binder.

3.3 Application of Asphalt Mixture Overlay or Traffic. Cover the RCS membrane with the successive wearing course immediately after installation. Do not allow any traffic on the exposed membrane prior to overlaying it due to safety concerns.

3.4 Acceptance. The Department will accept the RCS membrane based on the manufacturer’s certification of compliance with the requirements of Section 2.1 of this note and the Division of Materials analysis of selected properties on the sample(s) submitted prior to installation. The Department may sample the RCS membrane during installation and compare its properties to the requirements of Section 2.1 of this note.

3.5 Unacceptable Work. Remove and replace areas determined unacceptable by the Engineer, according to either the material or application requirements of this note, at no additional cost to the Department.

4. MEASUREMENT. The Department will not measure the RCS membrane and will consider the RCS membrane incidental to the Joint Repairs. The Department will not measure the surface preparation, asphalt primer, crack sealant, or PG binder used for sealing selected areas for payment and will consider them incidental to the Joint Repairs as well.

CRACK SUPRESSING MEMBRANE

FD05 081 068X 000-002

THE CRACK SUPRESSING MEMBRANE SHALL BE INSTALLED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.

TRANSVERSE CRACKS SHALL RECEIVE 24” MEMBRANE AT LOCATIONS DETERMINED BY THE ENGINEER.

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.

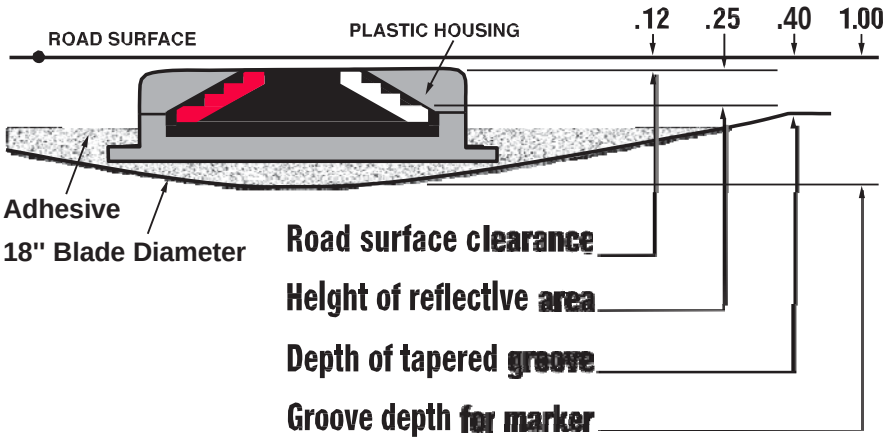
III. CONSTRUCTION

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

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

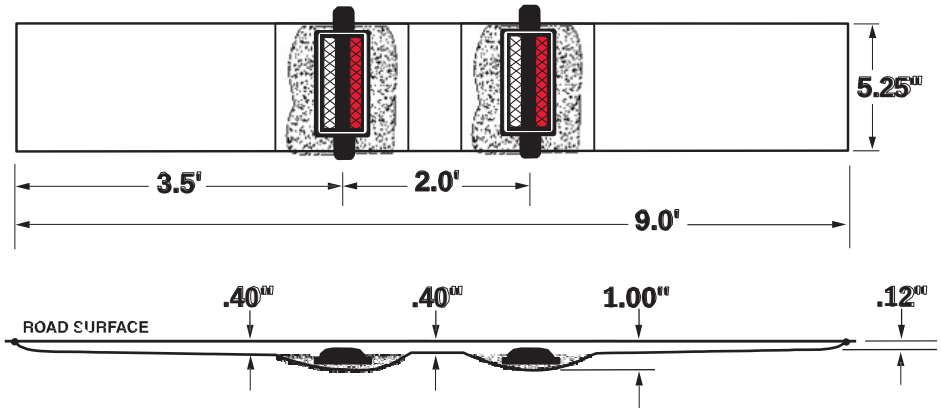
C. Installation. Install IPMs in recessed grooves cut into the final course of asphalt pavement according to the manufacturer's recommendations. Do not cut the grooves until the pavement has cured sufficiently to prevent tearing or raveling. Cut installation grooves using diamond blades on saws that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

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



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

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



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

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

E. Disposal of Waste. Dispose of all removed asphalt pavement, debris, and other waste at sites off the right of way obtained by the Contractor at no additional cost to the Department. See Special Note for waste and Borrow.

F. Restoration. Be responsible for all damage to public and/or private property resulting from the work. Restore all damaged features in like kind materials and design at no additional cost to the Department.

G. On-Site Inspection. Make a thorough inspection of the site prior to submitting a bid and be thoroughly familiar with existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid as evidence of this inspection having been made and will not honor any claims for money or grant Contract time extensions resulting from site conditions.

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

IV. MEASUREMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

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

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

V. PAYMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

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

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

COORDINATION OF WORK WITH OTHER CONTRACTS

Be advised, there may be an active project(s) adjacent to or within this project. The Engineer will coordinate the work of the Contractors. See Section 105.06.

1-3193 Coordination Contracts
01/02/2012

SPECIAL NOTE FOR PAVEMENT WEDGE AND SHOULDER SEPARATE OPERATION

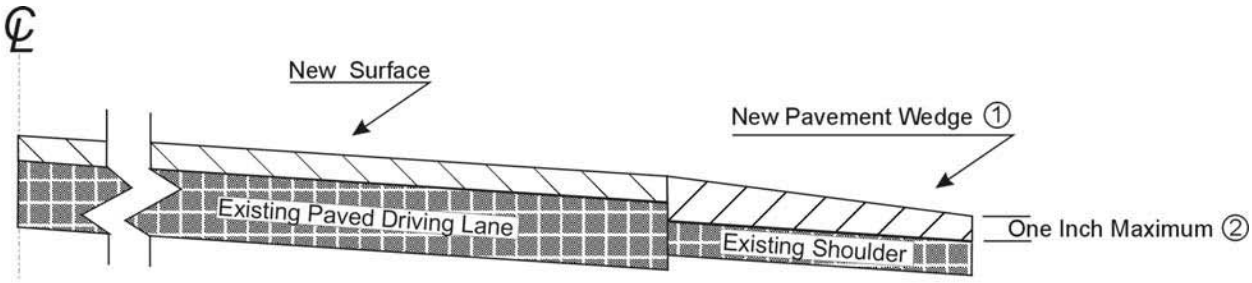
1.0 MATERIALS. Provide an Asphalt Mixture for Pavement Wedge conforming to Section 407 of the Standard Specifications or an Asphalt Surface Mixture conforming to Section 403 of the Standard Specifications, as applicable to the project, for the pavement wedge.

2.0 CONSTRUCTION. Place the Asphalt Mixture for Pavement Wedge or Asphalt Surface Mixture as a separate operation from the driving lane. Prime the existing shoulder with tack material as the Engineer directs before placing the wedge. Construct according to Sections 407.03 and 403.03 as applicable.

When the Engineer deems it appropriate to pave both the driving lane and the adjoining wedge monolithically, equip the paver with a modified screed that extends the full width of the wedge being placed and is tapered to produce a wedge. Obtain the Engineer's approval of the modified screed before placing shoulder wedge monolithically with the driving lane.

The wedge may vary in thickness at the edge of the driving lanes. Where existing site conditions permit, limit the outside edge thickness of the new paving limits to one inch above the existing shoulder wedge elevation. If an Asphalt Surface Mixture is furnished for the pavement wedge, texture according to Section 403.03.08.

The following sketch is primarily for the computation of quantities; however, the wedge will result in a similar cross-section where sufficient width exists. Do not construct a shoulder for placing the wedge unless specified elsewhere in the Contract.



① Slope varies, but is down from the driving lanes except on outside of some curves where superelevation controls.

② Where existing site conditions permit.

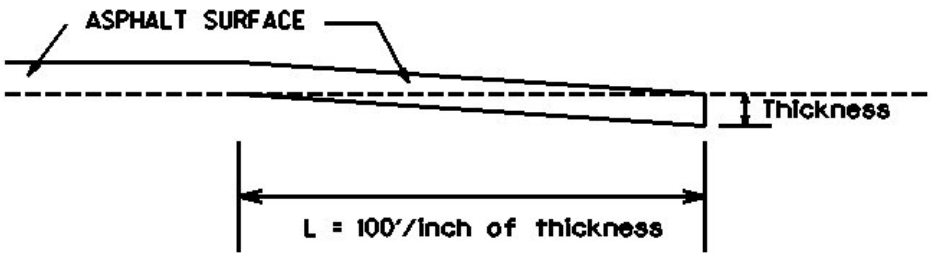
3.0 MEASUREMENT. The Department will measure Asphalt Mixture for Pavement Wedge or Asphalt Surface Mixture placed as the pavement wedge according to Sections 403 and 407 as applicable.

4.0 PAYMENT. The Department will make payment for the completed and accepted quantities of Asphalt Surface Mixtures placed as pavement wedge according to Section 403. The Department will make payment for the completed and accepted quantities of Asphalt Mixture for Pavement Wedge according to Section 407.

SPECIAL NOTE FOR EDGE KEY

Construct Edge Keys at the beginning of project, end of project, at railroad crossings, bridge ends, and at ramps, as applicable. Unless specified in the Contract or directed by the Engineer, do not construct edge keys at intersecting streets, roads, alleys, or entrances. Cut out the existing asphalt surface to the required depth and width shown on the drawing and heel the new surface into the existing surface. The Department will make payment for this work at the Contract unit price per ton for Asphalt Pavement Milling and Texturing, which shall be full compensation for all labor, materials, equipment, and incidentals for removal and disposal of the existing asphalt surface required to construct the edge key.

EDGE KEY



US 62
Thickness = 1.25 Inches

L = 125 LF

L= Length of Edge Key

US 68X
Thickness = 1.00 Inches

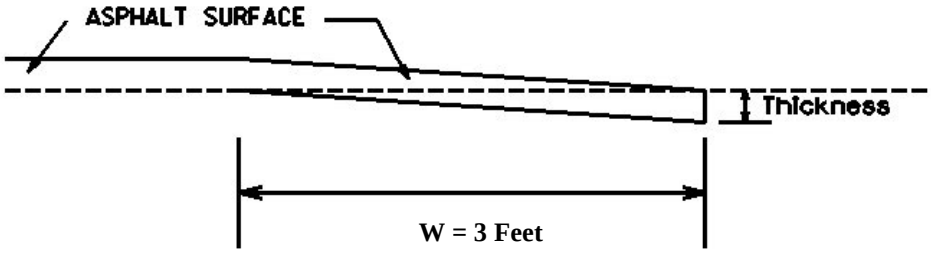
L = 100 LF

L= Length of Edge Key

SPECIAL NOTE FOR SIDE ROAD EDGE KEY

Construct 3’ Wide Edge Keys at side roads, as applicable. Cut out the existing asphalt surface to the required depth and width shown on the drawing and heel the new surface into the existing surface. The Department will make payment for this work at the Contract unit price per ton for Asphalt Pavement Milling and Texturing, which shall be full compensation for all labor, materials, equipment, and incidentals for removal and disposal of the existing asphalt surface required to construct the edge key.

EDGE KEY



Thickness = 1.25 Inches

W = 3 LF

W= Width of Edge Key

***See Milling Summary for locations**

SPECIAL NOTE FOR
ASPHALT MILLING AND TEXTURING

Begin paving operations within **48 hours** 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 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

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

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 on both US 62 and US 68X; 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.

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 Arrow Panels 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 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.

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 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.

TRAFFIC CONTROL FOR INLAID PAVEMENT MARKER INSTALLATIONS

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. Install all necessary traffic control devices before beginning work. Provide egress and ingress to all ramps, side roads, and entrances at all times. After the pavement markers have been placed on the roadway, leave traffic control devices in place to protect the markers from damage by traffic until the Engineer determines the adhesive epoxy has sufficiently hardened. When work is suspended or completed and the Engineer determines the pavement markers are completely bonded to the pavement, immediately remove the traffic control devices.

TWO-LANE, TWO-WAY ROADWAYS:

The Department will consider installation of inlaid pavement markers on two-lane, two-way roadway sections to be short-duration operations. Accomplish the work in only one lane and affect the adjacent lane as little as possible. Sign approaches to the immediate work area in accordance with Standard Drawings TTC-100-03 and TTC-105-02. Install the signs on approved temporary mountings.

As a minimum, equip all work vehicles used in the roadway with strobe lights or rotating beacons. If a flashing arrow board is mounted directly on a work vehicle, operate the board in caution mode only; do not use a flashing arrow indication. The Department will not require the use of a Truck Mounted Attenuator (TMA) on two-lane, two-way roadway sections.

MULTI-LANE ROADWAYS:

Place inlaid pavement markers behind stationary lane closures. Obtain the Engineer's approval for stationary lane closures prior to use. Sign approved stationary lane closures according to Standard Drawings TTC-115-02 and TTC-125-02. If the Contractor desires an interior lane closure, prepare a plan and obtain the Engineer's approval prior to use. Install all necessary traffic control devices before beginning work.

Protect the work zone with a TMA conforming to Sections 725.02.05 and 725.03.03. Place the TMA within the lane closure at locations approved by the Engineer. Contrary to Section 725.03.03, retain possession of the TMA upon completion of the work.

Restrict the work area to not more than one lane of traffic plus 24 inches maximum of only one adjacent lane in each direction of travel. Provide a minimum lane width of 10 feet; however, provide for passage of vehicles of up to 16 feet in width. Limit the length of a lane closure to not exceed 1 mile in urban areas or 3 miles in rural areas as designated by the Engineer. Do not erect more than one lane closure in each direction of travel unless there is at least 2 miles separation between lane closures and both lane closures are in the same lane.

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

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
-

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 I75/USE ALT RTE

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 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 NEXT RIGHT
Westbound	W-BND	W-BND I64 CLOSED/DETOUR EXIT 50
Work	WRK	CONST WRK 2MI/POSSIBLE 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

TEMP	Temporary	Temperature
WRNG	Warning	Wrong

TYPICAL MESSAGES

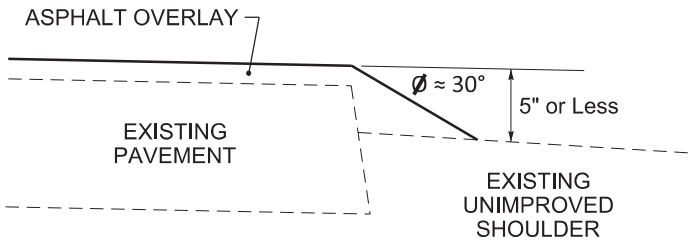
The following is a list of typical messages used on CMS. The list consists of the reason or problem that you want the driver to be aware of and the action that you want the driver to take.

Reason/Problem	Action
ACCIDENT	ALL TRAFFIC EXIT RT
ACCIDENT/XX MILES	AVOID DELAY USE XX
XX ROAD CLOSED	CONSIDER ALT ROUTE
XX EXIT CLOSED	DETOUR
BRIDGE CLOSED	DETOUR XX MILES
BRIDGE/(SLIPPERY, ICE, ETC.)	DO NOT PASS
CENTER/LANE/CLOSED	EXPECT DELAYS
DELAY(S), MAJOR/DELAYS	FOLLOW ALT ROUTE
DEBRIS AHEAD	KEEP LEFT
DENSE FOG	KEEP RIGHT
DISABLED/VEHICLE	MERGE XX MILES
EMER/VEHICLES/ONLY	MERGE LEFT
EVENT PARKING	MERGE RIGHT
EXIT XX CLOSED	ONE-WAY TRAFFIC
FLAGGER XX MILES	PASS TO LEFT
FOG XX MILES	PASS TO RIGHT
FREEWAY CLOSED	PREPARE TO STOP
FRESH OIL	REDUCE SPEED
HAZMAT SPILL	SLOW
ICE	SLOW DOWN
INCIDENT AHEAD	STAY IN LANE
LANES (NARROW, SHIFT, MERGE, ETC.)	STOP AHEAD
LEFT LANE CLOSED	STOP XX MILES
LEFT LANE NARROWS	TUNE RADIO 1610 AM
LEFT 2 LANES CLOSED	USE NN ROAD
LEFT SHOULDER CLOSED	USE CENTER LANE
LOOSE GRAVEL	USE DETOUR ROUTE
MEDIAN WORK XX MILES	USE LEFT TURN LANE
MOVING WORK ZONE, WORKERS IN ROADWAY	USE NEXT EXIT
NEXT EXIT CLOSED	USE RIGHT LANE
NO OVERSIZED LOADS	WATCH FOR FLAGGER
NO PASSING	
NO SHOULDER	
ONE LANE BRIDGE	

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

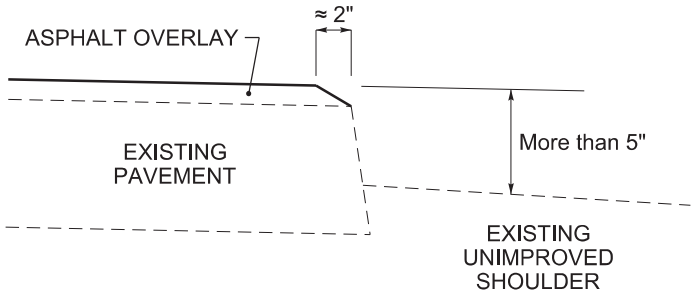
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to low shoulder with dropoff of 5 inches or less)



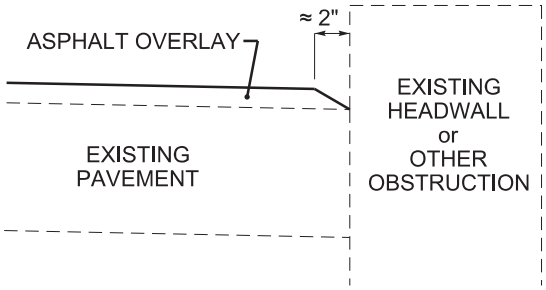
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to low shoulder with dropoff of more than 5 inches)



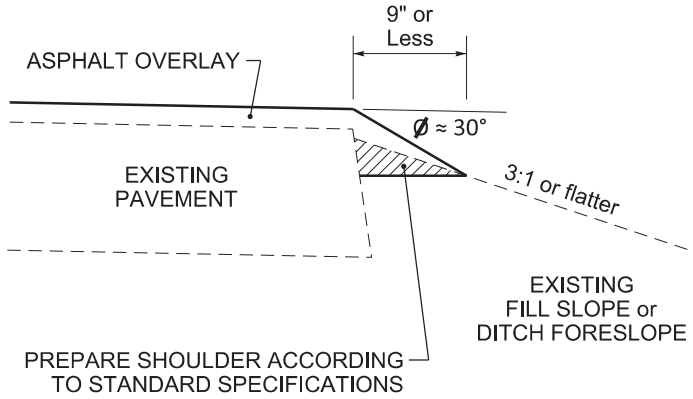
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to an obstruction, such as an existing headwall)



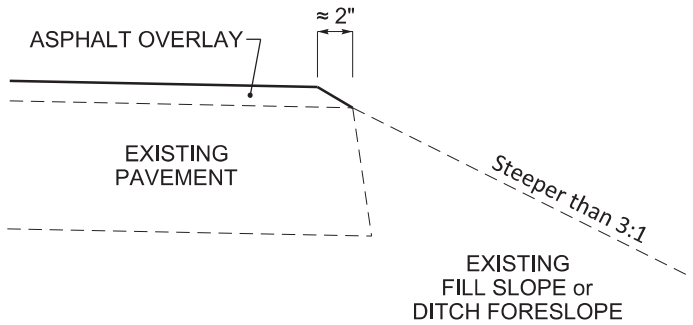
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to fill slope or ditch foreslope that is 3:1 or less)



DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to fill slope or ditch foreslope that is steeper than 3:1)



NOTES

1. DETAILS DO NOT APPLY TO OVERLAYS LESS THAN 1 INCH THICK.
2. THE DURABLE PAVEMENT EDGE DEVICE MAY BE DISENGAGED AT DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT, AS APROVED BY THE ENGINEER.

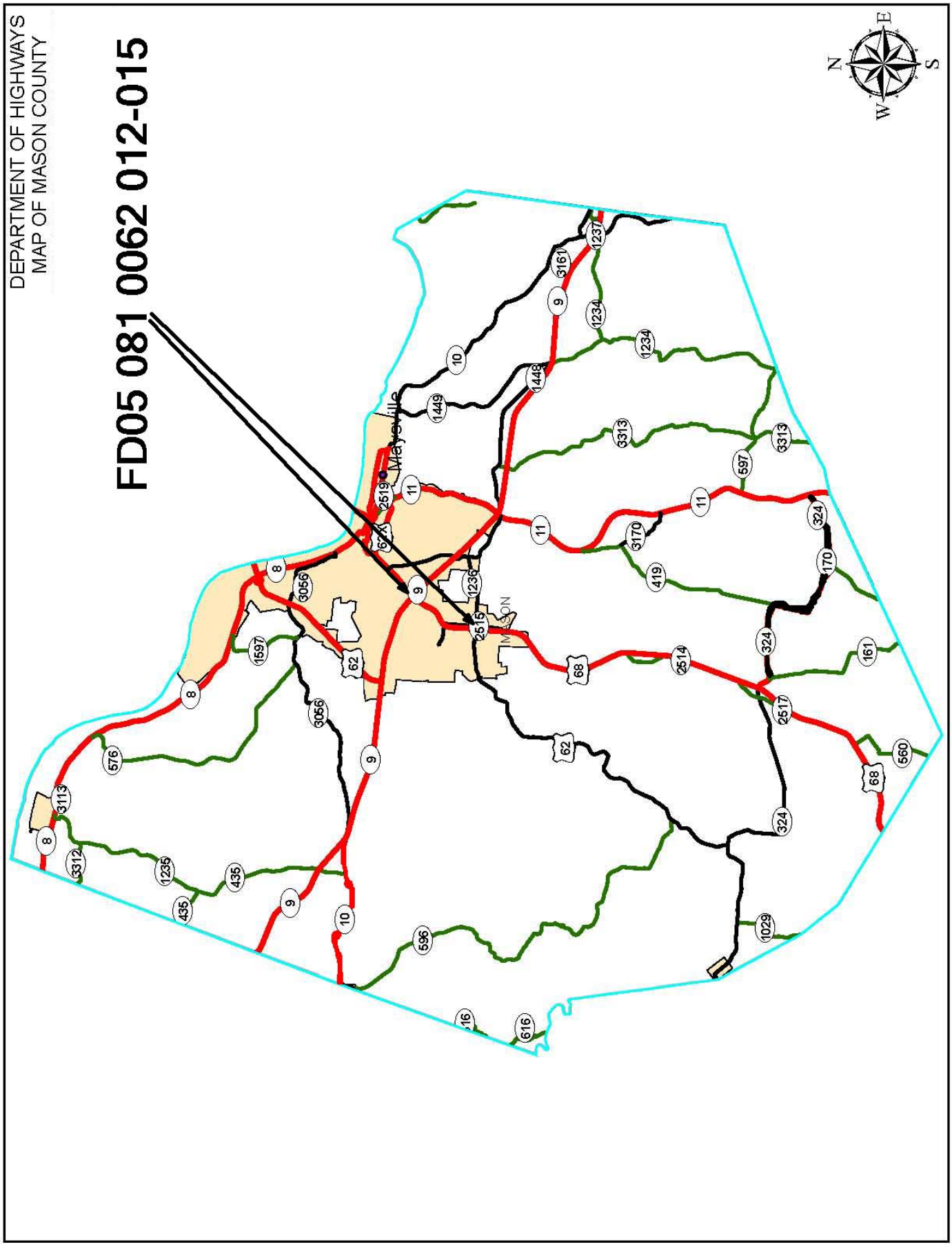
DRAWING NOT TO SCALE

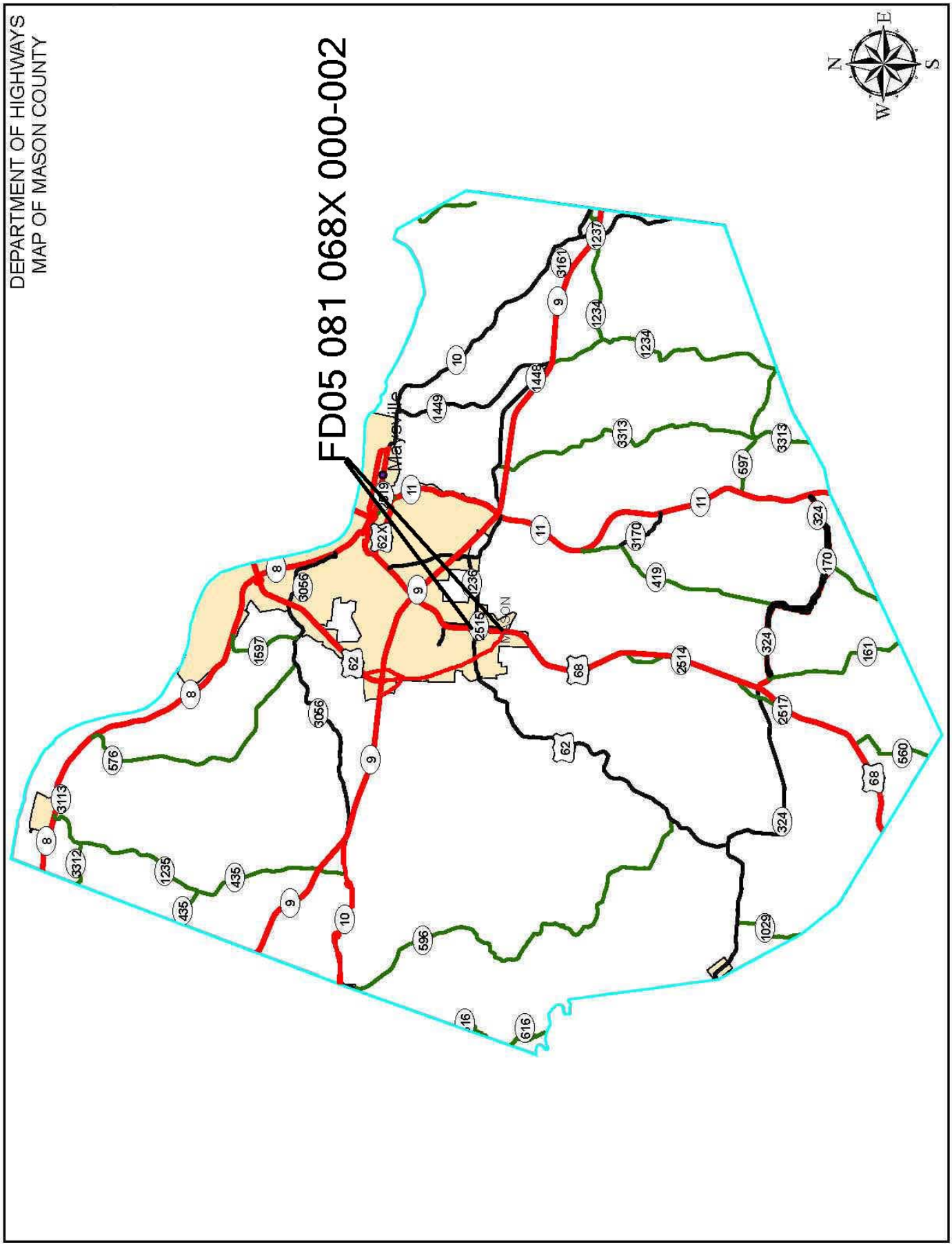
DURABLE PAVEMENT EDGE DETAILS

SPECIAL NOTE FOR TRAFFIC SIGNAL LOOP DETECTORS
FD05 081 068X 000-002

Be advised, existing traffic signal inductance loops are within the construction limits of this project. Notify the Engineer in writing, a minimum of 14 days 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 in order to coordinate any necessary work by their forces to replace any of the inductance loops damaged during the milling and texturing process.

If after milling and texturing 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 the saw slot and refilling with natural sand, but shall be incidental to Asphalt Pavement Milling and Texturing.


DEPARTMENT OF HIGHWAYS
MAP OF MASON COUNTY
FD05 081 0062 012-015
N
E
S
W
Maysville
MASON


DEPARTMENT OF HIGHWAYS
MAP OF MASON COUNTY
FD05 081 068X 000-002
Maysville
MASON
N
E
S
W

MATERIAL SUMMARY

CONTRACT ID: 172115 **081GR17P024-FD05** **MP08100621701**

MAYSVILLE-WASHINGTON ROAD (US 62) FROM US 68X-KY 1236 EXTENDING EAST TO KY 9 ASPHALT RESURFACING, A DISTANCE OF 1.72 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0005	02569	DEMOBILIZATION	1.00	LS
0010	02562	TEMPORARY SIGNS	350.00	SQFT
0015	02650	MAINTAIN & CONTROL TRAFFIC - (US 62)	1.00	LS
0020	00387	CL3 ASPH SURF 0.38B PG76-22	4,800.00	TON
0025	00301	CL2 ASPH SURF 0.38D PG64-22	1,250.00	TON
0030	00001	DGA BASE	100.00	TON
0035	00190	LEVELING & WEDGING PG64-22	1,410.00	TON
0040	00191	ASPHALT SCRATCH COURSE PG64-22	1,920.00	TON
0045	02696	SHOULDER RUMBLE STRIPS	18,111.00	LF
0050	06514	PAVE STRIPING-PERM PAINT-4 IN	46,000.00	LF
0055	06510	PAVE STRIPING-TEMP PAINT-4 IN	23,000.00	LF
0060	02677	ASPHALT PAVE MILLING & TEXTURING	612.00	TON
0065	02676	MOBILIZATION FOR MILL & TEXT - (US 62)	1.00	LS
0070	00212	CL2 ASPH BASE 1.00D PG64-22	374.00	TON
0075	00003	CRUSHED STONE BASE	200.00	TON
0080	06600	REMOVE PAVEMENT MARKER TYPE V	700.00	EACH
0085	24489EC	INLAID PAVEMENT MARKER	455.00	EACH
0090	06568	PAVE MARKING-THERMO STOP BAR-24IN	315.00	LF
0095	06574	PAVE MARKING-THERMO CURV ARROW	27.00	EACH
0100	06575	PAVE MARKING-THERMO COMB ARROW	3.00	EACH
0105	02775	ARROW PANEL	2.00	EACH
0110	10030NS	ASPHALT ADJUSTMENT	1.00	DOLL
0115	10020NS	FUEL ADJUSTMENT	1.00	DOLL
0120	02671	PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH

MATERIAL SUMMARY

CONTRACT ID: 172115 **081GR17P024-FD05** **MP081068X1701**

MAYSVILLE-LEXINGTON ROAD (US 68X) FROM 0.113 MILES EAST OF US 68 EXTENDING EAST TO US 62-KY 1236 ASPHALT RESURFACING, A DISTANCE OF 1.33 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0125	02569	DEMOBILIZATION	1.00	LS
0130	02562	TEMPORARY SIGNS	240.00	SQFT
0135	02650	MAINTAIN & CONTROL TRAFFIC - (US 68X)	1.00	LS
0140	00340	CL2 ASPH SURF 0.38D PG76-22	2,570.00	TON
0145	00001	DGA BASE	75.00	TON
0150	00190	LEVELING & WEDGING PG64-22	293.00	TON
0155	23623EC	REMOVE MOUNTABLE MEDIAN	704.00	SQYD
0160	06514	PAVE STRIPING-PERM PAINT-4 IN	28,000.00	LF
0165	06510	PAVE STRIPING-TEMP PAINT-4 IN	14,000.00	LF
0170	02775	ARROW PANEL	2.00	EACH
0175	02671	PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH
0180	02696	SHOULDER RUMBLE STRIPS	14,066.00	LF
0185	20458ES403	CENTERLINE RUMBLE STRIPS	4,800.00	LF
0190	06600	REMOVE PAVEMENT MARKER TYPE V	285.00	EACH
0195	24489EC	INLAID PAVEMENT MARKER	45.00	EACH
0200	02677	ASPHALT PAVE MILLING & TEXTURING	417.00	TON
0205	02676	MOBILIZATION FOR MILL & TEXT - (US 68X)	1.00	LS
0210	06574	PAVE MARKING-THERMO CURV ARROW	2.00	EACH
0215	06568	PAVE MARKING-THERMO STOP BAR-24IN	60.00	LF
0220	10020NS	FUEL ADJUSTMENT	6,013.00	DOLL
0225	10030NS	ASPHALT ADJUSTMENT	15,103.00	DOLL
0230	00191	ASPHALT SCRATCH COURSE PG64-22	910.00	TON
0235	00212	CL2 ASPH BASE 1.00D PG64-22	155.00	TON
0240	00003	CRUSHED STONE BASE	162.00	TON
0245	00301	CL2 ASPH SURF 0.38D PG64-22	200.00	TON

Mason County
THERMOPLASTIC INTERSECTION PAVEMENT MARKINGS SUMMARY
FD05 081 0062 012-015

MPT.	INTERSECTION	X-WALKS 6 INCH LF	STP BARS 24 INCH LF	ARROWS CURVE EA	ARROWS STR EA	ARROWS COMB EA	"ONLY" EA	CATRAXX 6 INCH LF	RAILROAD "R" 6 FOOT EA	RAILROAD CROSS BUCK 16" LF	NOTES
12.672	US 68X/KY 1246		36	2							
12.793				2							
12.990				2							
13.381	KY 2515		87	4							
13.580				2							
13.813	MCTC		84	2							
13.927				2							
14.008	Tucker Drive		60	4							
14.122	Beverly Drive			2							
14.251	K-Mart		12	2							
14.387	KY 9		36	3		3					
TOTAL			315	27		3					

FD05 081 0062 012-015 FULL DEPTH JOINT REPAIR SUMMARY

MILEPOINT	DIRECTION	LENGTH (LF)	WIDTH (LF)	LANES	BASE (TONS)	CRUSHED STONE BASE TONS
12.729	EB	6	50	BOTH EB LANES, EB SHOULDER, & MEDIAN	22	12
12.816	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
12.823	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
12.927	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
12.937	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.021	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.040	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.059	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.088	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.106	EB	6	50	BOTH EB LANES, EB SHOULDER, & MEDIAN	22	12
13.194	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.266	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.462	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.604	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.750	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.787	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.857	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.910	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.945	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.980	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
13.985	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
14.012	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
14.059	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8
14.210	EB	6	34	BOTH EB LANES & EB SHOULDER	15	8

BASE DEPTH (IN): **12**

CRUSHED STONE BASE DEPTH (IN): **6**

TOTAL BASE (TONS): **374**

TOTAL CRUSHED STONE BASE (TONS): **200**

*Asphalt Base shall be CL2 ASPH BASE 1.00D PG64-22.

FD05 081 0062 012-015 MILLING & INLAY SUMMARY

BEGIN MP	END MP	DIRECTION	LANE	LENGTH (FT)	WIDTH (FT)	DEPTH (IN)	MILLING (TONS)	LEVELING/WEDGING (TONS)
12.700	12.816	EB	Fast Lane	612	12	2	90	90
12.834	12.851	EB	Fast Lane	90	12	2	13	13
13.040	13.088	EB	Fast Lane	253	12	2	37	37
13.026	13.084	WB	Both	306	24	2	90	90
13.136	13.172	WB	Both	190	24	2	56	56

TOTAL MILLING (TONS): 286

TOTAL LEVELING/WEDGING (TONS): 286

MASON COUNTY
US 62
FD05 081 0062 012-015

MILLING LOCATIONS

BEGIN	END	NOTES	LOCATION	LENGTH	WIDTH	DEPTH	TONS
12.700	12.816	Mill 2" and Inlay with L/W	EB Fast Lane	612	12	2	90
12.834	12.851	Mill 2" and Inlay with L/W	EB Fast Lane	90	12	2	13
13.040	13.088	Mill 2" and Inlay with L/W	EB Fast Lane	253	12	2	37
13.026	13.084	Mill 2" and Inlay with L/W	Both WB Lanes	306	24	2	90
13.136	13.172	Mill 2" and Inlay with L/W	Both WB Lanes	190	24	2	56
14.363	14.387	125' Edgekey	End of Project Mainline Edgekey @ KY 9	100	84	0.625	32
						TOTAL:	**318**

SIDE ROAD 3' EDGEKEY SUMMARY

MILEPOINT	SIDE ROAD	LENGTH LF	MILLING (TONS)
13.381	KY 2515 (Washington)	30	1
13.381	KY 2515 (Clarks Run Road)	60	1
13.813	MCTC	75	1
14.008	Tucker Drive	60	1
14.168	South Shawnee Drive	25	1
14.168	Simon Kenton Ave	40	1
14.236	K-Mart	75	1
14.337	Hardee's	50	1
		TOTAL FOR SIDE ROAD EDGEKEYS:	**8**

TOTAL PROJECT MILLING (TONS): **326**

REMOVE MOUNTABLE MEDIAN SUMMARY

FD05 081 068X 000-002

BEGIN MP	END MP	LENGTH (FT)	AVERAGE WIDTH (FT)	AREA (SY)
1.157	1.257	528	12	704

TOTAL REMOVE MOUNTABLE MEDIAN AREA: 704

TOTAL CRUSHED STONE BASE (TONS): 162

TOTAL ASPHALT BASE (TONS): 155

ASPHALT SCRATCH COURSE SUMMARY

BEGIN MP	END MP	LANES
0.800	1.445	All Mainline Lanes Plus 1' onto Each Shoulder

*Actual locations for Asphalt Scratch Course will be determined by the Engineer at the time of construction.

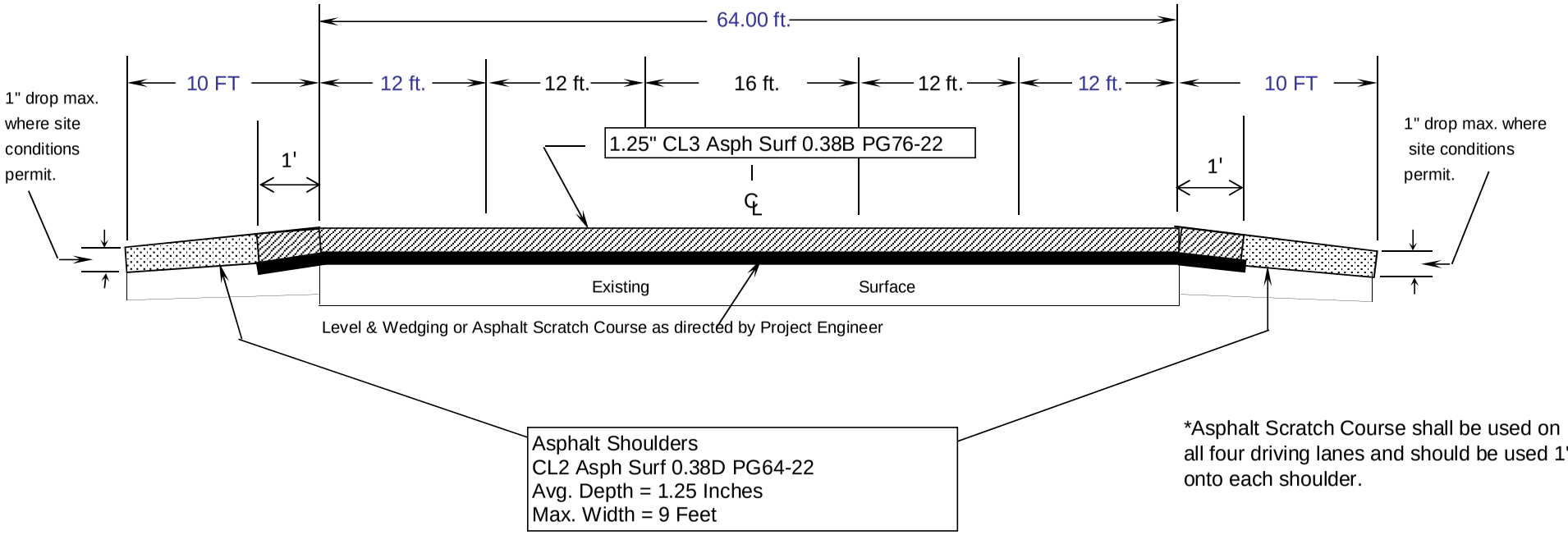
Mason County
THERMOPLASTIC INTERSECTION PAVEMENT MARKINGS SUMMARY
FD05 081 068X 000-002

MPT.	INTERSECTION	X-WALKS 6 INCH LF	STP BARS 24 INCH LF	ARROWS CURVE EA	ARROWS STR EA	ARROWS COMB EA	"ONLY" EA	CATRAXX 6 INCH LF	RAILROAD "R" 6 FOOT EA	RAILROAD CROSS BUCK 16" LF	NOTES
1.445	US 62/KY 1236		36	2							
1.445	US 62 (Side Road)		12								
1.445	KY 1236 (Side Road)		12								
TOTAL			60	2							

TYPICAL SECTION

MASON COUNTY

FD05 081 0062 012-015
MP 12.672 - 14.387

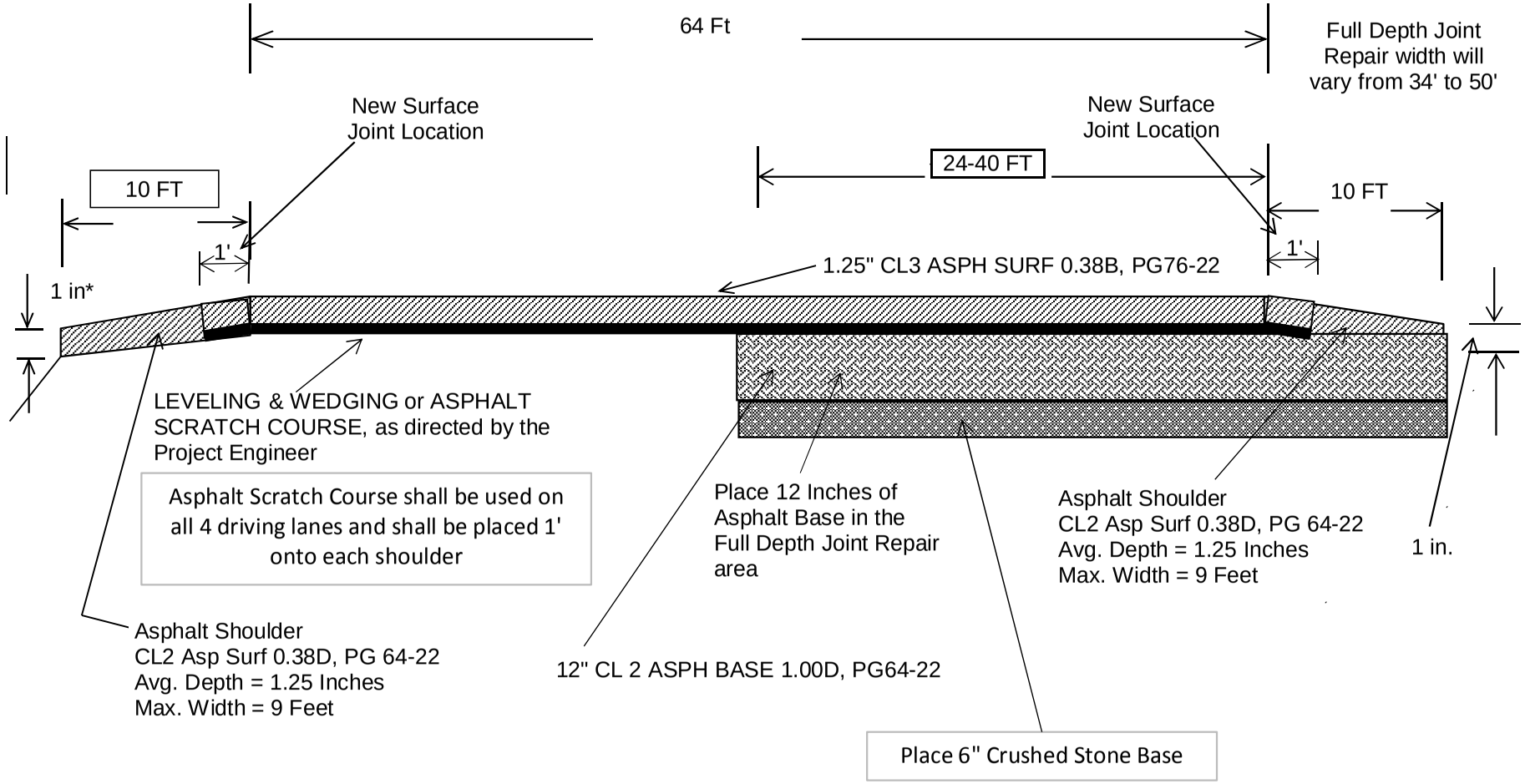


***Construct Shoulder Rumble Strips from M.P. 12.672 to M.P. 14.387.**
****Proposed surface joint to be located 1' onto each shoulder. (See Special Note for Proposed ML/SH Surface Joint.)**
*****Place DGA shoulder outside of the asphalt shoulder where site conditions permit.**
******Install Inlaid Pavement Markers in TWLTL**

TYPICAL SECTION

MASON COUNTY

FD05 081 0062 012-015
Full-Depth Joint RepairTypical

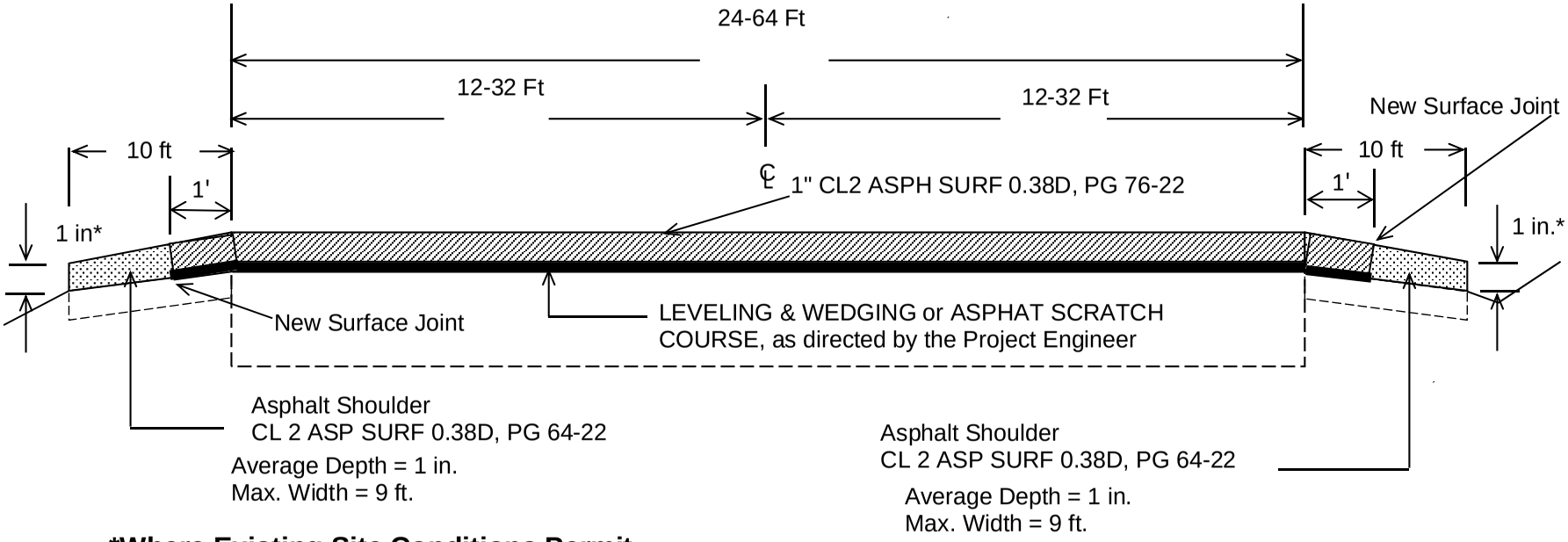


***Construct Shoulder Rumble Strips from MP 12.672-14.387**

****Proposed surface joint to be located 1' onto shoulder. (See Special Note for Proposed ML/SH Surface Joint Location.)**
*****Place DGA shoulder outside of the asphalt shoulder where site conditions permit.**
******Install Inlaid Pavement Markers in TWLTL**

MASON COUNTY

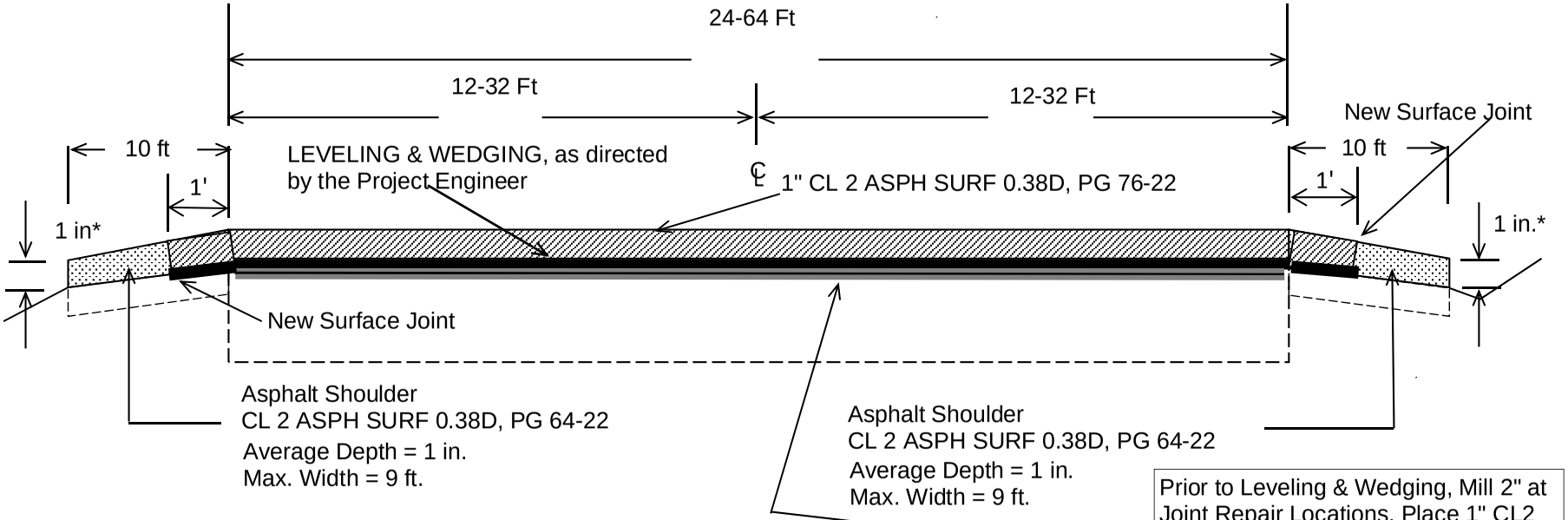
FD05 081 068X 000-002
TYPICAL SECTION
MP 0.113 - 1.445



***Where Existing Site Conditions Permit**
****Construct Shoulder Rumble Strips from M.P. 0.113 to M.P. 1.445.**
*****Construct Centerline Rumble Strips from M.P. 0.113 to M.P. 1.022.**
******Place Inlaid Pavement Markers in TWLTL**
*******Proposed surface joint to be located 1' onto shoulder. (See Special Note for Proposed ML/SH. Joint.)**
********Place DGA Shoulder outside of asphalt shoulder where site condtions permit.**

MASON COUNTY

FD05 081 068X 000-002
JOINT REPAIR TYPICAL SECTION
VARIOUS LOCATIONS

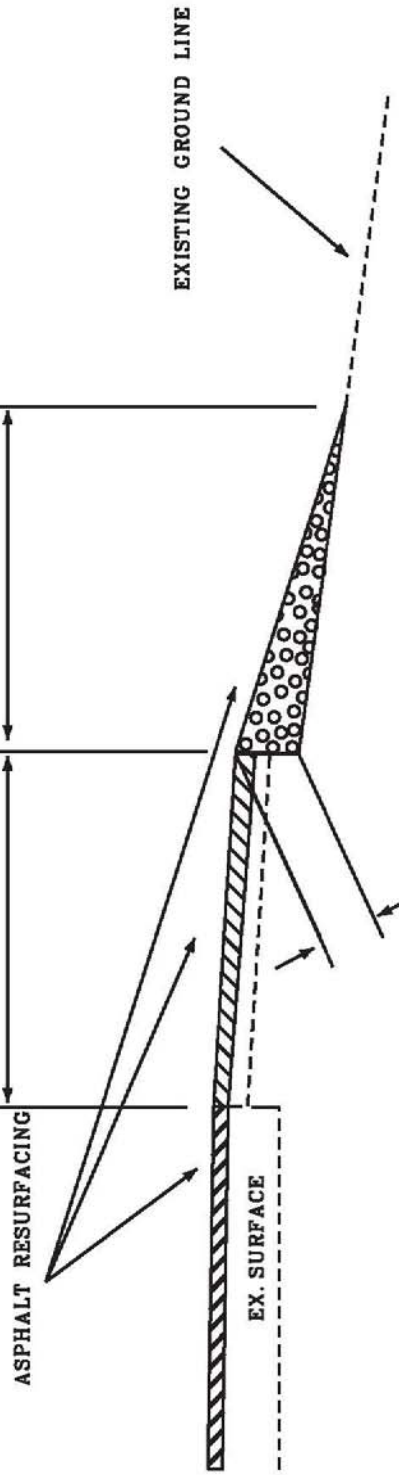


Prior to Leveling & Wedging, Mill 2" at Joint Repair Locations, Place 1" CL2 ASPH SURF 0.38D PG64-22, Place 24" Reflective Crack Suppressive Membrane, and Cover membrane with 1" CL2 ASPH SURF 0.38D PG64-22.

***Where Existing Site Conditions Permit**
****Construct Shoulder Rumble Strips from M.P. 0.113 to M.P. 1.445.**
*****Construct Centerline Rumble Strips from M.P. 0.113 to M.P. 1.022.**
******Place Inlaid Pavement Markers in TWLTL**
*******Proposed surface joint to be located 1' onto shoulder. (See Special Note for Proposed ML/SH. Joint.)**
********Place DGA Shoulder outside of asphalt shoulder where site condtions permit.**

STONE WEDGE

To be used at the edge of the resurfaced shoulder



NOTE: Stone Shoulder Wedge to be used when shoulder dropoff is over 1"
Stone Shoulder Wedge to be used as directed by the engineer on the project

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

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

SUPPLEMENTAL SPECIFICATIONS

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

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

1I

SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

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

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

2.0 MATERIALS.

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

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

2.2 Sign and Controls. All signs must:

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

1I

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

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

2.3 Power.

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

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

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

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

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

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

1I

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

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

Code	Pay Item	Pay Unit
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

2016 KENTUCKY STANDARD DRAWINGS
SUPPLEMENTS TO STANDARD SPECIFICATIONS
TABLE OF CONTENTS

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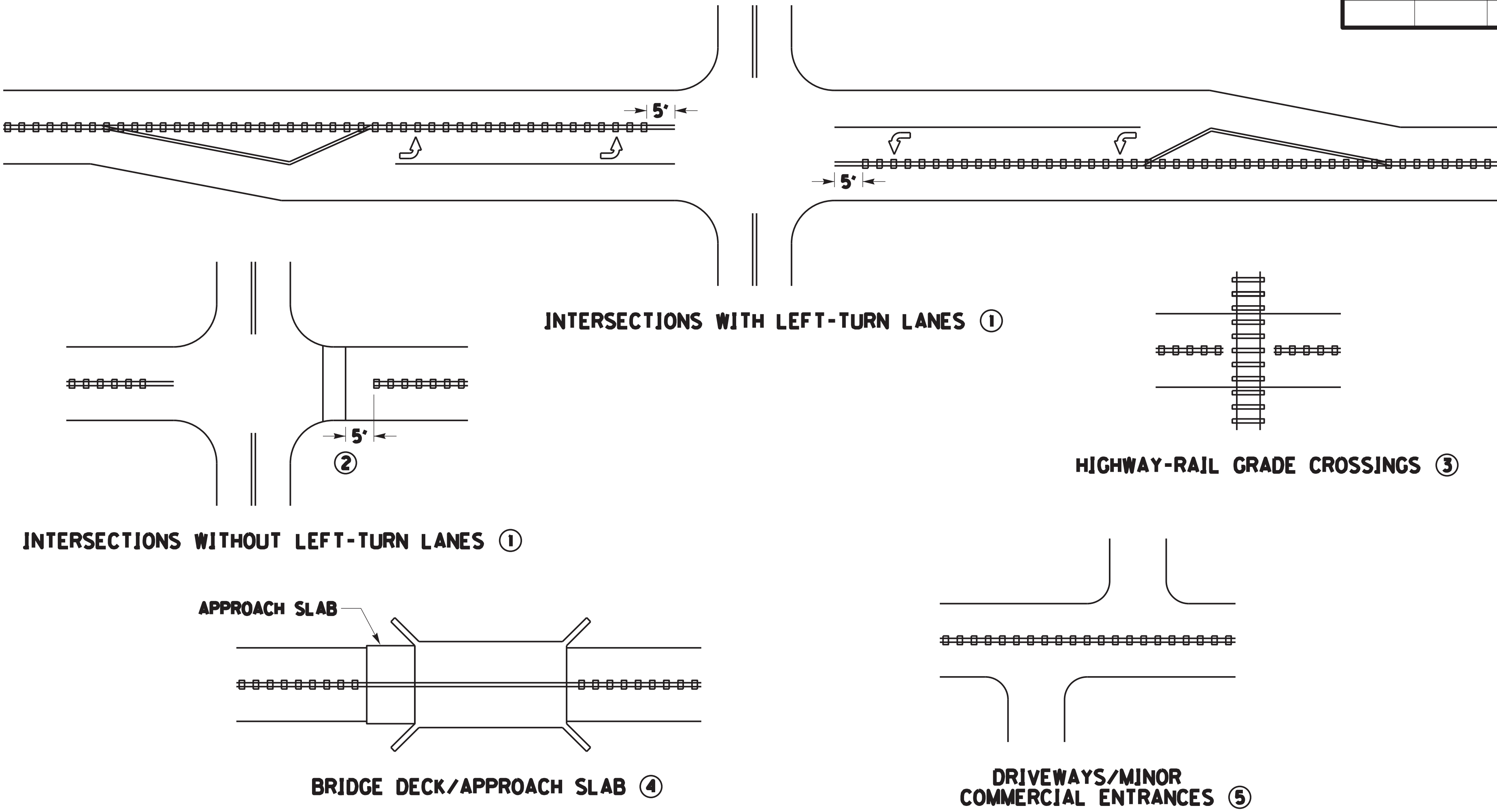


~ NOTES ~

① CENTERLINE RUMBLE STRIPS SHALL BE OMITTED THROUGH MAJOR INTERSECTIONS WITH, OR WITHOUT, LEFT-TURN LANES. OMIT THE CENTERLINE RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF THE AREA WHERE THE CENTERLINE PAVEMENT MARKINGS HAVE BEEN OMITTED (NORMALLY WHERE SIDE STREET RADIUS INTERSECTS MAINLINE).

② CENTERLINE RUMBLE STRIPS SHALL NOT BE INSTALLED THROUGH MARKED CROSSWALKS. OMIT THE CENTERLINE RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF MARKED CROSSWALKS.

③ CENTERLINE RUMBLE STRIPS SHALL NOT BE INSTALLED ACROSS HIGHWAY-RAIL GRADE CROSSINGS.

④ CENTERLINE RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS OR APPROACH SLABS.

⑤ CENTERLINE RUMBLE STRIPS SHALL BE INSTALLED THROUGH DRIVEWAYS & MINOR COMMERCIAL ENTRANCES.

6. CENTERLINE RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS, OR WHERE LANE WIDTHS ARE LESS THAN 11 FT.

BID ITEM AND UNIT TO BID
CENTERLINE RUMBLE STRIPS LF

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS. TPM-155 AND TPM-160

KENTUCKY
DEPARTMENT OF HIGHWAYS

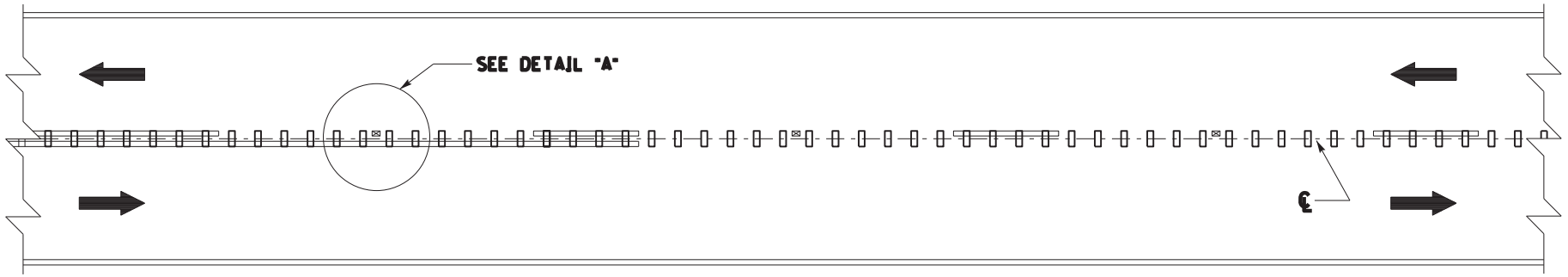
CENTERLINE RUMBLE STRIPS

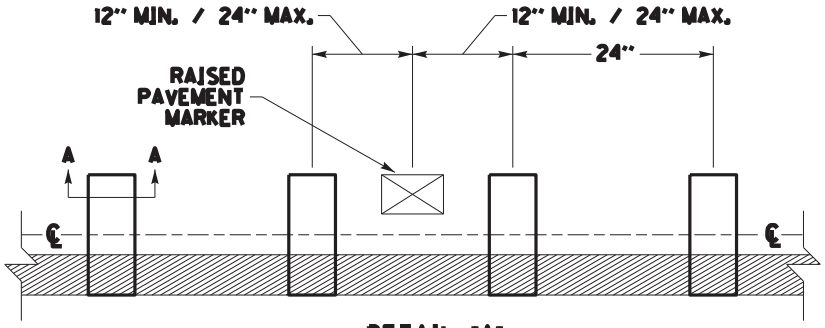
SUBMITTED R. Jeffrey Wolfe 11-23-16
DATE

002

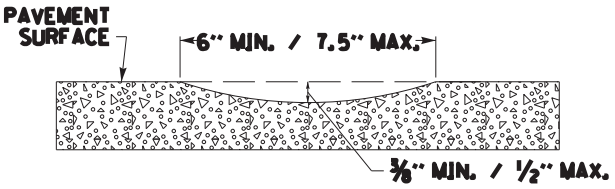
COUNTY OF	ITEM NO.	SHEET NO.

PLAN VIEW

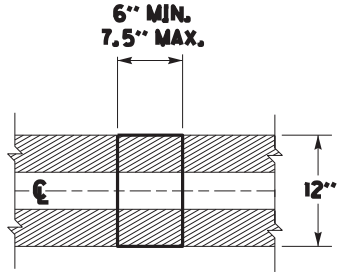




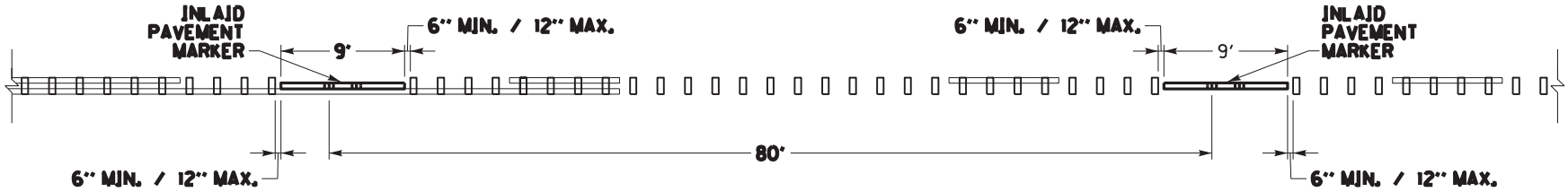
DETAIL "A"



SECTION A-A



RUMBLE STRIP DETAIL



DETAIL FOR CENTERLINE RUMBLE STRIPS WITH INLAID PAVEMENT MARKERS

~ NOTES ~

1. DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE.
2. CENTERLINE RUMBLE STRIPS SHALL BE INSTALLED IN LINE WITH THE CENTER OF THE ROADWAY AS MUCH AS POSSIBLE.
3. DISCONTINUE CENTERLINE RUMBLE STRIPS AT LEAST 12" BEFORE AND AFTER THE CENTER OF EACH RAISED PAVEMENT MARKER, AND AT LEAST 6" BEFORE AND AFTER THE GROOVE FOR EACH INLAID PAVEMENT MARKER. INSTALL AS MANY RUMBLE STRIPS AS POSSIBLE BETWEEN ADJACENT PAVEMENT MARKERS WHILE MAINTAINING THE 24" CYCLE.
4. DO NOT INSTALL CENTERLINE RUMBLE STRIPS IN AREAS INDICATED ON TPM-150.
5. CENTERLINE RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS, OR WHERE LANE WIDTHS ARE LESS THAN 11 FT.

BID ITEM AND UNIT TO BID	
CENTERLINE RUMBLE STRIPS	LF

DRAWING NOT TO SCALE

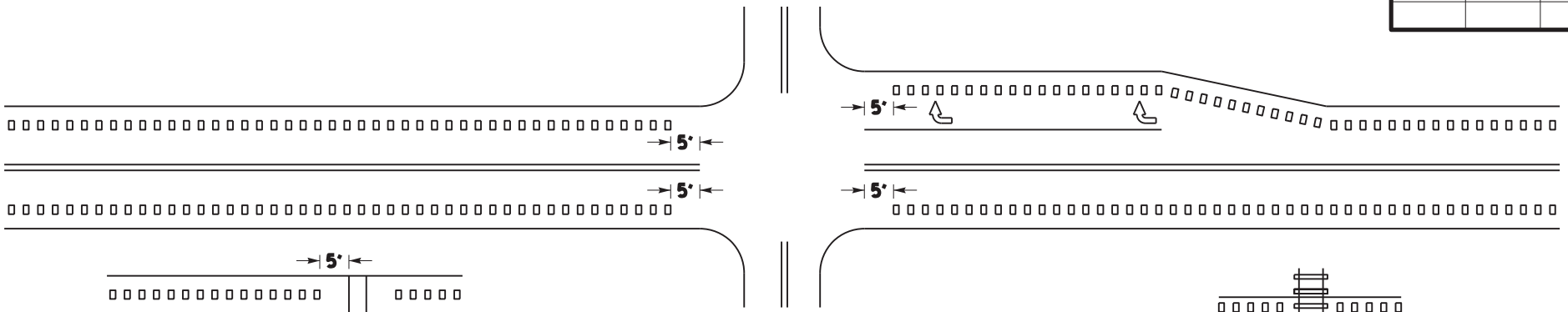
USE WITH CUR. STD. DWG. TPM-150

KENTUCKY
DEPARTMENT OF HIGHWAYS

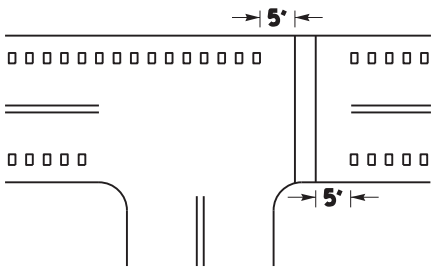
CENTERLINE RUMBLE STRIPS 4 INCH STRIPING

SUBMITTED R. Jeffrey Wolfe 11-23-16 DATE

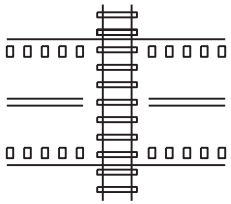
COUNTY OF	ITEM NO.	SHEET NO.



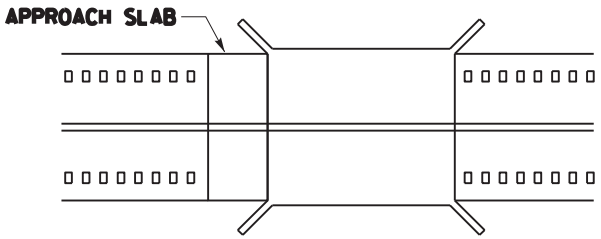
INTERSECTIONS WITH OR WITHOUT ① RIGHT TURN LANES



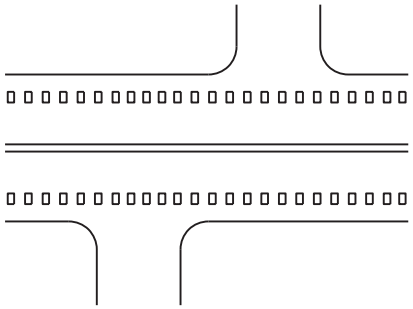
MARKED CROSSWALK ②



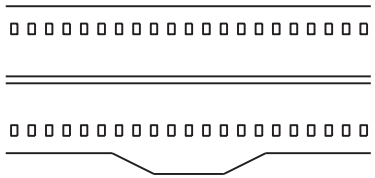
HIGHWAY-RAIL GRADE CROSSINGS ③



BRIDGE DECK/APPROACH SLAB ④



DRIVEWAYS/MINOR COMMERCIAL ENTRANCES ⑤



MAILBOX TURNOUTS ⑥

~ NOTES ~

① RUMBLE STRIPS SHALL BE OMITTED THROUGH MAJOR INTERSECTIONS WITH, OR WITHOUT, RIGHT-TURN LANES. OMIT RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF THE AREA WHERE EDGELINE PAVEMENT MARKINGS HAVE BEEN OMITTED (NORMALLY WHERE SIDE STREET RADIUS INTERSECTS MAINLINE).

② RUMBLE STRIPS SHALL NOT BE INSTALLED THROUGH MARKED CROSSWALKS. OMIT RUMBLE STRIPS APPROXIMATELY 5' IN ADVANCE OF MARKED CROSSWALKS.

③ RUMBLE STRIPS SHALL NOT BE INSTALLED ACROSS HIGHWAY-RAIL GRADE CROSSINGS.

④ RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS OR APPROACH SLABS.

⑤ RUMBLE STRIPS SHALL BE INSTALLED THROUGH DRIVEWAYS & MINOR COMMERCIAL ENTRANCES.

⑥ RUMBLE STRIPS SHALL BE INSTALLED THROUGH MAILBOX TURNOUTS.

7. RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.

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

DRAWING NOT TO SCALE

USE WITH SEPIA 006, 007, AND 008

KENTUCKY
DEPARTMENT OF HIGHWAYS

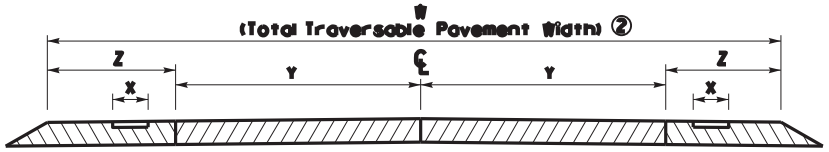
SHOULDER & EDGELINE RUMBLE STRIP DETAILS

SUBMITTED R. Jeffrey Wolfe 11-23-16 DATE

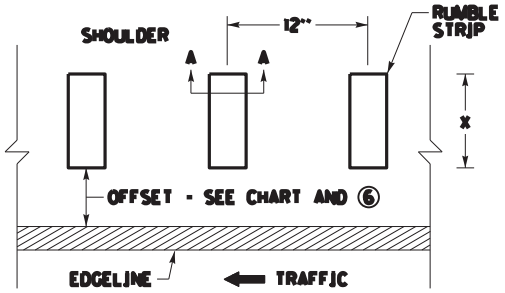
008

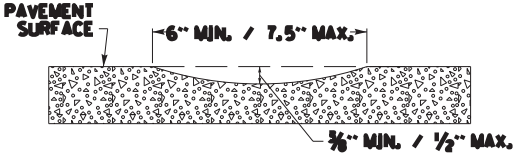
COUNTY OF	ITEM NO.	SHEET

PAVEMENT WIDTH (W) ②	RUMBLE LENGTH (X) ⑥	OFFSET ⑥	CLRS & SRS	
			LANE WIDTH (Y) ③	SHOULDER WIDTH (Z) ④
34'	8"	6"	12'	5'
35'	8"	6"	12'	5.5'
36'	8"	6"	12'	6'
37'	12"	12"	12'	6.5'
38'	12"	12"	12'	7'
39'	12"	12"	12'	7.5'
>=40'	16"	12"	12'	>=8'

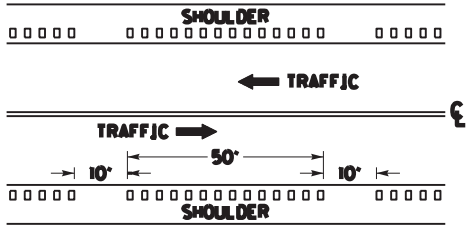


PAVEMENT CROSS-SECTION





SECTION A-A



BICYCLE GAPS ⑦

NOTES

1. SHOULDER RUMBLE STRIPS SHOULD BE INSTALLED ACCORDING TO THE DIMENSIONS PROPOSED ABOVE UNLESS THERE IS AN ENGINEERING BASIS THAT SUPPORTS A CHANGE IN DIMENSION. FOR EXAMPLE, IF THE EXISTING LANE WIDTH IS NARROWER THAN THE LANE WIDTH PROPOSED IN THIS DRAWING AND THE EXISTING SHOULDER PAVEMENT DEPTH IS NOT SUITABLE TO BE CONVERTED INTO A PORTION OF THE PROPOSED LANE WIDTH, THEN THE EXISTING LANE WIDTH SHOULD BE USED INSTEAD OF THE WIDTH PROPOSED IN THIS DRAWING.

② PAVEMENT WIDTH (W) IS THE TOTAL WIDTH OF TRAVERSABLE PAVEMENT. DO NOT INCLUDE THE WIDTH OF ANY NON-TRAVERSABLE PAVEMENT, SUCH AS PAVEMENT WEDGES, WHEN MEASURING THE PAVEMENT WIDTH (W).

③ LANE WIDTH (Y) TO BE MEASURED FROM CENTER OF ROAD TO CENTER OF EDGELINE STRIPE.

④ PAVED SHOULDER WIDTH (Z) TO BE MEASURED FROM CENTER OF EDGELINE STRIPE TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT.

5. DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE. IF THE TYPICAL SECTION SHOWS A LANE WIDTH (Y) AND/OR SHOULDER WIDTH (Z) THAT DIFFERS FROM THE WIDTHS LISTED IN THIS DRAWING, THE ENGINEER SHALL DETERMINE THE LANE WIDTH (Y) AND/OR SHOULDER WIDTH (Z) AT THE TIME OF CONSTRUCTION.
NOTE: CENTERLINE RUMBLE STRIPS SHOULD BE OMITTED WHEN THE LANE WIDTH (Y) IS LESS THAN 11 FT.

⑥ RUMBLE LENGTH (X) AND/OR OFFSET DISTANCE MAY BE MODIFIED AS THE ENGINEER DIRECTS, IF THE SHOULDER WIDTH (Z) IS EQUAL TO OR LESS THAN THE COMBINED WIDTH OF THE PROPOSED RUMBLE LENGTH (X) AND OFFSET DISTANCE.

⑦ ALL SHOULDER RUMBLE STRIPS ALONG SHOULDERS THAT ARE 5' OR WIDER SHOULD INCLUDE BICYCLE GAPS AS DETAILED.

8. SHOULDER RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS.

BID ITEM AND UNIT TO BID
SHOULDER RUMBLE STRIPS LF

DRAWING NOT TO SCALE

USE WITH SEPIA 005

KENTUCKY
DEPARTMENT OF HIGHWAYS

SHOULDER RUMBLE STRIP DETAILS
TWO LANE ROADWAYS

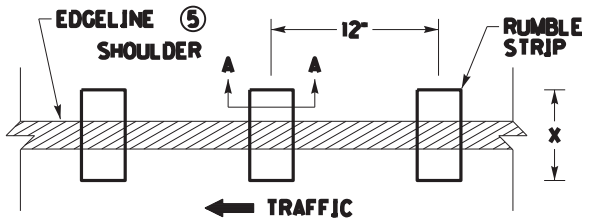
SUBMITTED R. Jeffrey Wolfe 11-23-16
DATE

007

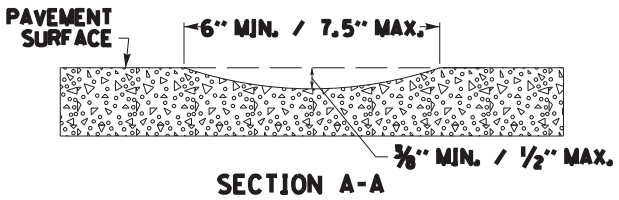
COUNTY OF	ITEM NO.	SHEET NO.

PAVEMENT CROSS-SECTION
(WHEN ELRS ARE SPECIFIED)

PAVEMENT CROSS-SECTION
(WHEN SRS ARE SPECIFIED)

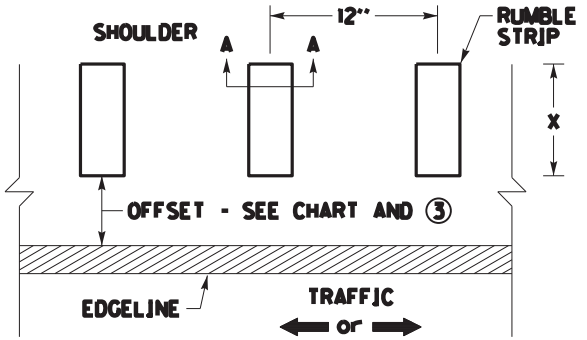


ELRS DETAILS

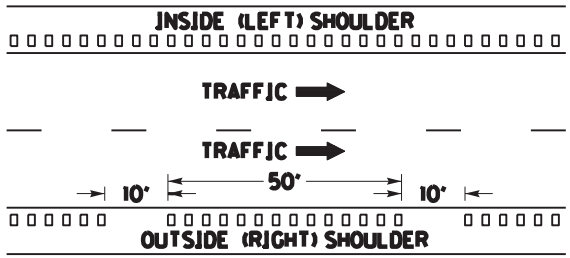


SECTION A-A

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



SRS DETAILS



BICYCLE GAPS ⑥

NOTES

① FOR MULTI-LANE ROADWAYS, THE RUMBLE TYPE TO BE INSTALLED IS BASED ON SHOULER WIDTH (Z). FOR SHOULDER WIDTHS OF 2', 3', AND 4' THE RUMBLE TYPE MAY BE SPECIFIED AS EITHER EDGELINE RUMBLE STRIPS (ELRS) OR SHOULDER RUMBLE STRIPS (SRS). IN THESE SITUATIONS, THE RUMBLE TYPE TO BE INSTALLED WILL BE SPECIFIED IN THE PLANS, PROPOSAL, AND/OR BID ITEMS, OR AS DIRECTED BY THE ENGINEER.

② WHEN ELRS ARE SPECIFIED, SHOULDER WIDTH (Z) IS FROM LANE SIDE EDGE OF RUMBLE STRIP TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT. WHEN SRS ARE SPECIFIED, SHOULDER WIDTH (Z) IS FROM CENTER OF EDGELINE STRIPE TO OUTSIDE EDGE OF TRAVERSABLE PAVEMENT.

③ RUMBLE LENGTH (X) AND/OR OFFSET DISTANCE MAY BE MODIFIED AS THE ENGINEER DIRECTS, IF THE SHOULDER WIDTH (Z) IS EQUAL TO OR LESS THAN THE COMBINED WIDTH OF THE PROPOSED RUMBLE LENGTH (X) AND OFFSET DISTANCE.

4. DISTANCES SHOWN ARE APPROXIMATE. MAINTAIN RUMBLE STRIP DIMENSIONS AND SPACING AS MUCH AS POSSIBLE.

⑤ WHEN ELRS ARE SPECIFIED, THE EDGELINE MARKING SHALL BE PLACED IN THE CENTER OF THE RUMBLE STRIP.

⑥ SHOULDER RUMBLE STRIPS (SRS) ALONG OUTSIDE (RIGHT) SHOULDERS THAT ARE 5' OR WIDER SHOULD INCLUDE BICYCLE GAPS AS DETAILED. BICYCLE GAPS ARE NOT REQUIRED ON INSIDE (LEFT) SHOULDERS. BICYCLE GAPS SHALL NOT BE USED ON INTERSTATES AND PARKWAYS.

7. RUMBLE STRIPS SHOULD BE OMITTED WHERE THE POSTED SPEED LIMIT IS 45 MPH OR LESS, OR WHEN THE SHOULDER WIDTH IS LESS THAN 1 FT.

BID ITEMS AND UNIT TO BID

SHOULDER RUMBLE STRIPS	LF
EDGELINE RUMBLE STRIPS	LF

DRAWING NOT TO SCALE

USE WITH SEPJA 005

KENTUCKY
DEPARTMENT OF HIGHWAYS

RUMBLE STRIP DETAILS
MULTI-LANE ROADWAYS
AND RAMPS

SUBMITTED R. Jeffrey Wolfe 11-23-16 DATE

008

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

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 (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

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

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

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

Revised: January 25, 2017

EXECUTIVE BRANCH CODE OF ETHICS

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

KRS 11A.040 (7) provides:

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

KRS 11A.040 (9) states:

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

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

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

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

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

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

Revised: January 27, 2017

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.

EMPLOYEE RIGHTS
UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

FEDERAL MINIMUM WAGE
$7.25 PER HOUR
BEGINNING JULY 24, 2009

OVERTIME PAY

At least 1½ times your regular rate of pay for all hours worked over 40 in a workweek.

CHILD LABOR

An employee must be at least **16** years old to work in most non-farm jobs and at least **18** to work in non-farm jobs declared hazardous by the Secretary of Labor.

Youths **14** and **15** years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs under the following conditions:

No more than

- **3** hours on a school day or **18** hours in a school week;
- **8** hours on a non-school day or **40** hours in a non-school week.

Also, work may not begin before **7 a.m.** or end after **7 p.m.**, except from June 1 through Labor Day, when evening hours are extended to **9 p.m.** Different rules apply in agricultural employment.

TIP CREDIT

Employers of "tipped employees" must pay a cash wage of at least $2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee's tips combined with the employer's cash wage of at least $2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.

ENFORCEMENT

The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.

Employers may be assessed civil money penalties of up to $1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to $11,000 for each employee who is the subject of a violation of the Act's child labor provisions. In addition, a civil money penalty of up to $50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to $100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.

ADDITIONAL INFORMATION

- Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions.
- Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands.
- Some state laws provide greater employee protections; employers must comply with both.
- The law requires employers to display this poster where employees can readily see it.
- Employees under 20 years of age may be paid $4.25 per hour during their first 90 consecutive calendar days of employment with an employer.
- Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.

For additional information:

1-866-4-USWAGE

(1-866-487-9243) TTY: 1-877-889-5627

U.S. Wage and Hour Division

WWW.WAGEHOUR.DOL.GOV

U.S. Department of Labor | Wage and Hour Division

WHD Publication 1088 (Revised July 2009)

PART IV

INSURANCE

INSURANCE

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

1) Commercial General Liability-Occurrence form – not less than $2,000,000 General aggregate, $2,000,000 Products & Completed Aggregate, $1,000,000 Personal & Advertising, $1,000,000 each occurrence.

2) Automobile Liability- $1,000,000 per accident

3) Employers Liability:

   a) $100,000 Each Accident Bodily Injury
   b) $500,000 Policy limit Bodily Injury by Disease
   c) $100,000 Each Employee Bodily Injury by Disease

4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
   a) "policy contains no deductible clauses."
   b) "policy contains _____ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."

5) KENTUCKY WORKMEN'S COMPENSATION INSURANCE. The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

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

PART V

BID ITEMS

172115

PROPOSAL BID ITEMS

Report Date 5/1/17

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	175.00	TON		$	
0020	00003		CRUSHED STONE BASE	362.00	TON		$	
0030	00190		LEVELING & WEDGING PG64-22	1,703.00	TON		$	
0040	00191		ASPHALT SCRATCH COURSE PG64-22	2,830.00	TON		$	
0050	00212		CL2 ASPH BASE 1.00D PG64-22	529.00	TON		$	
0060	00301		CL2 ASPH SURF 0.38D PG64-22	1,450.00	TON		$	
0070	00340		CL2 ASPH SURF 0.38D PG76-22	2,570.00	TON		$	
0080	00387		CL3 ASPH SURF 0.38B PG76-22	4,800.00	TON		$	
0090	02562		TEMPORARY SIGNS	590.00	SQFT		$	
0100	02650		MAINTAIN & CONTROL TRAFFIC (US 62)	1.00	LS		$	
0110	02650		MAINTAIN & CONTROL TRAFFIC (US 68X)	1.00	LS		$	
0120	02671		PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH		$	
0130	02676		MOBILIZATION FOR MILL & TEXT (US 62)	1.00	LS		$	
0140	02676		MOBILIZATION FOR MILL & TEXT (US 68X)	1.00	LS		$	
0150	02677		ASPHALT PAVE MILLING & TEXTURING	1,029.00	TON		$	
0160	02696		SHOULDER RUMBLE STRIPS	32,177.00	LF		$	
0170	02775		ARROW PANEL	4.00	EACH		$	
0180	06510		PAVE STRIPING-TEMP PAINT-4 IN	37,000.00	LF		$	
0190	06514		PAVE STRIPING-PERM PAINT-4 IN	74,000.00	LF		$	
0200	06568		PAVE MARKING-THERMO STOP BAR-24IN	375.00	LF		$	
0210	06574		PAVE MARKING-THERMO CURV ARROW	29.00	EACH		$	
0220	06575		PAVE MARKING-THERMO COMB ARROW	3.00	EACH		$	
0230	06600		REMOVE PAVEMENT MARKER TYPE V	985.00	EACH		$	
0240	10020NS		FUEL ADJUSTMENT	6,014.00	DOLL	$1.00	$	$6,014.00
0250	10030NS		ASPHALT ADJUSTMENT	15,104.00	DOLL	$1.00	$	$15,104.00
0260	20458ES403		CENTERLINE RUMBLE STRIPS	4,800.00	LF		$	
0270	23623EC		REMOVE MOUNTABLE MEDIAN	704.00	SQYD		$	
0280	24489EC		INLAID PAVEMENT MARKER	500.00	EACH		$	

Section: 0002 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0290	02569		DEMOBILIZATION	1.00	LS		$	