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GOVERNOR

TRANSPORTATION CABINET
200 Mero Street
Frankfort, Kentucky 40601

Jim Gray
SECRETARY

August 15, 2025

CALL NO. 314
CONTRACT ID NO. 254108
ADDENDUM # 1

Subject: Hancock County, FD04 046 0060 013-018
Letting August 21, 2025

(1) Revised – Special Notes – Pages 13-25 of 95
(2) Revised – Edge Key – Page 33 of 95
(3) Revised – Traffic Control Plan – Pages 35-43 of 95
(4) Revised – General Summary -Pages 47-50A of 95
(5) Revised – Typical Section – Page 51 of 95
(6) Revised – Detail Sheets – Pages 52-75A of 95
(7) Added – Provision Material Transfer Vehicle (MTV) – Page 12 of 95
(8) Added – Provision Special Note for Experimental KYCT & Hamburg Testing – Pages 12A-12C of 95
(9) Added – Provision RAP Stockpile Management – Pages 26A-26G of 95

Proposal revisions are available at http://transportation.ky.gov/Construction-Procurement/.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

Rachel Mills

Rachel Mills, P.E.
Director
Division of Construction Procurement

RM:mr
Enclosures

Special Notes Applicable to Project
General Notes & Description of Work

CAUTION

The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

STATIONING

The contractor is advised that the planned locations of work were established from a beginning station number, which is STA 738+68.30, 0.14 miles north of Willamette Road and corresponds to Milepoint 13.990 along US 60. **NOTE**: The existing mile marker signs may not correspond to the proposed work locations.

RIGHT OF WAY LIMITS

The Department has not established the exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured and environmentally cleared by the Contractor at no additional cost to the Department. In the event that private improvements (i.e., fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.

CONTROL

Perform all work under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and his/her decision shall be final and binding upon the Contractor.

DESCRIPTION OF WORK

Except as specified herein, perform all work in accordance with the Department's Standard Specifications, Supplemental Specifications, applicable Special Notes and Special Provisions, and applicable Standard and Sepia Drawings, current editions. Furnish all materials, labor, equipment, and incidentals for the following work:

Pavement Resurfacing. The existing roadway is to be resurfaced from Station 738+68.30 to Station 933+96.61. Paving limits to encompass entire roadway including existing/proposed paved shoulders. Other items that may be associated with the pavement resurfacing include: construction of edge keys, leveling and wedging, installation of rumble strips, and application of pavement markings. Refer to the rumble strip Standard Drawings for recommended placement of rumble strips and see Striping Detail Sheet in the plans.

General Notes & Description of Work
Page 2 of 2

Shoulder Mill & Trench Full Depth Pavement. Construct a 6 ft trench along the shoulder on one side of the road as identified on the plan sheets. Replace with asphalt surface and asphalt base as shown on the typical section.

Removal of Existing Signing Assemblies and Installation of Proposed Signing. A quantity of "Remove Sign" has been included for removal of existing signs along the corridor, as identified on the Plans and the General Summary. An estimated quantity of new signing and sign post is included on the Signing Summary. The Contractor and Engineer will work with the District Traffic Section to determine the final signing layout and sign types prior to installation of the proposed signing. Refer to the Special Note for Signing and the Special Note for Signage for more details concerning the procedures for determining and staking the final layout and installation of the signing.

Removal of Centerline Rumble Strip. Remove existing centerline rumble strip by milling and overlaying 1.50" Asphalt Surface, one foot either side of the centerline as shown on the Typical Sections. After rumble strip is removed temporary striping can be completed for Maintenance of Traffic operations.

Temporary Striping. A quantity Pave Striping – Temp Paint –6 in has been included in the contract. The Contractor and Engineer should work together to determine any locations throughout the project requiring temporary pavement striping. The Engineer will make the final determination as to the quantities and placement of temporary pavement striping.

Thermoplastic 6" Striping. A quantity of Pave Striping – Thermo – 6 in has been included in the contract to restripe the entire corridor with 6" thermoplastic paint. Use the Striping Detail sheet included in the plan set to layout striping.

Special Note for Staking

Perform Contractor Staking according to Section 201; except, in addition to the requirements of Section 201, perform the following:

1. Contrary to Section 201.03.01, perform items 1 & 2 usually performed by the Engineer.
2. Using stakes, paint marks on the pavement, mag nails, and/or any other means approved by the Engineer, the Contractor shall mark and/or stake the proposed sign locations in the field. NOTE: The proposed signs are listed in the proposal by approximate location and are NOT to be taken as the exact location for the signs. During staking operations the Contractor shall review the signing layout and existing field conditions and look for potential conflicts, including but not limited to utilities, driveways, visual obstructions, etc. When conflicts are found, adjust the staked location of signs to mitigate conflicts. Because the sign locations in the proposal are approximate and the location of some signs may need to be adjusted due to conflicts, during staking operations the Contractor shall refer to and utilize the information in the Manual on Uniform on Traffic Control Devices (MUTCD), current edition. The MUTCD cover items such as: appropriate sign location, advance placement distances, and spacing requirements for signing. The intent is for the proposed signs to be consistent with, and meet the requirements of, the MUTCD. Once the proposed sign locations have been staked, notify and coordinate with the District Traffic Engineer, and perform a review of the staked locations. Adjust the staked locations, as directed by the District Traffic Engineer and obtain approval of the final staked locations. This review will also be used to determine if there are any existing signs that require removal and/or relocation. Provide the District Traffic Engineer with 2 weeks of notice when a route will be ready for a review of the staked locations. NOTE: The District Traffic Engineer may determine that the proposed signing, including sign types and messages, needs to be adjusted and/or modified from what is shown in the proposal. Therefore, the Contractor shall not order any sign material for a route until the route has been staked and final sign location approval has been given by the District Traffic Engineer.
3. Using paint marks on the pavement, and/or any other means approved by the Engineer, the Contractor shall layout and pre-mark the proposed striping, pavement markings, etc. Adjust as necessary to accommodate the existing site conditions and to provide proper alignment of the proposed thru and turning lanes. Take extra care in laying out the proposed passing zones and obtain approval of the pre-marked passing zone layouts from the Engineer and/or District Traffic Engineer prior to installing the passing zone striping.
4. Prior to incorporating into the work, obtain the Engineers approval of all revisions determined by the Contractor.
5. Perform any and all other staking operations required to control and construct the work.

Special Note for Shoulder Milling/Trenching

Trench shoulders as shown on the Typical Section. The Engineer may eliminate locations along the route from shoulder trenching (e.g. road approaches, turn lanes, entrances, etc.). For entrances and road approaches, the Engineer will determine whether to omit the trenching or continue the trenching across the entrance or approach. DO NOT trench across entrances or road approaches without the Engineer's approval. If trenching is achieved by means other than milling, saw cut the pavement 7 inches deep to create a smooth edge prior to excavating the shoulder trench. Excavate the material from the shoulder and maintain the proposed cross-slope as shown on the Typical Sections. The intent is to mill, or excavate, the entire trench so that the proposed shoulder slope is retained at the end of the paving operation. Reshape and compact excavated material from the trench on the outside edge of the newly paved shoulder as shown on the Typical Section.

Retain possession of excess materials and/or materials the Engineer deems unsuitable for reuse and waste the materials off the right-of-way at sites obtained by the Contractor at no additional cost to the Department. See Special Provision for Waste and Borrow.

Accept payment at the contract unit price per square yard for SHOULDER MILLING/TRENCHING as full compensation for all labor, materials, equipment, and incidentals for excavating the shoulder trench and reuse and/or disposal of the excavated material.

Special Note for Signage

All sign sheeting shall be from the Cabinet's List of Approved Materials.

All permanent signs and sign components shall be fabricated using Type XI sheeting.

The following signs and sign components shall be fabricated using Type XI fluorescent yellow sheeting:

- Horizontal Alignment Signs and Plaques, including signs shown in Figure 2C-1 of the MUTCD
- All Advisory Speed (W13-1P) plaques

The following signs shall be fabricated using Type XI fluorescent yellow-green sheeting:

- School and school bus warning signs, including the fluorescent yellow-green signs shown in Figures 7B-1 and 7B-6 of the MUTCD and other school-related warning signs that are not included in the MUTCD.
- Bicycle Warning (W11-1) signs and SHARE THE ROAD (W16-1P) plaques or diagonal downward pointing arrow (W16-7P) plaques that supplement Bicycle Warning signs.
- Pedestrian Warning signs and diagonal downward pointing arrow plaques that supplement Pedestrian Warning signs.
- In-Street Pedestrian Crossing (R1-6) signs and Overhead pedestrian Crossing (R1-9) signs
- Supplemental plaques to any of the previously listed signs

Special Note for Signing

I. DESCRIPTION

Except as provided herein, this work shall be performed in accordance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD), the Department's current Standard Specifications and Interim Supplemental Specifications, applicable Standard and Sepia Drawings, and applicable Special Provisions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

(1) Maintaining and Controlling Traffic; (2) Furnish, Fabricate, and Erect Signs; and (3) All other work specified in the Contract.

II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be 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.

III. CONSTRUCTION METHODS

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

B. Site Preparation. Be responsible for all site preparation including, but not limited to: clearing and grubbing, staking, excavation, backfill, and removal of obstructions or any other material not covered by other items. Perform all site preparation only as approved or directed by the Engineer.

C. Staking. See Special Note for Staking.

D. Signs and Posts. Before beginning installation, the Contractor shall furnish to the Engineer drawings, descriptions, manufacturer's cuts, etc. describing and/or detailing all material to be used. Mill test reports for beams, steel panels, and each different gauge of aluminum or steel sheeting used must be submitted to the Division of Construction and approved prior to erection.

Fabricate sheet signs from .080 or .125 gauge aluminum alloy 5052-H38 or 6061-T6, in accordance with ASTM B-209, and to the size and shape specified. Prepare the side of the aluminum sheet to receive the retroreflective background material according to the recommendations of the sheeting and retroreflective material manufacturer(s). Sheeting used as background material for sign faces is to be the color specified and visually in accordance with the standard requirements of ASTM D-4956 and meet the requirements of Section 830 of the Standard Specifications. Contrary to Section 830.02.06, only the types and colors of sheeting as specified in the proposal will be accepted. All retroreflective material shall be fabricated and assembled in accordance with the specifications and/or recommendations of the manufacturer(s).

All hardware for the erection of sheeting signs shall be rust resistant: stainless steel, zinc coated, aluminum, or an Engineer approved material. All beams and sign posts shall be of sufficient lengths so that a single, continuous length of sign post extends from the top of the sign to the required embedment in the anchor. Splicing of the sign post shall NOT be allowed. For installations in soil, Type I steel posts shall be mounted on either a standard anchor, with soil stabilizer plate, or on a Type D breakaway sign support. Refer to Sheeting Sign Detail Sheet 1 of 2 for installation details for a standard anchor with soil stabilizer plate. When installing a standard anchor with soil stabilizer plate, if solid rock is encountered, the Contractor shall drill a hole to the required depth into the rock, install the anchor into the hole, and backfill the anchor post with concrete, or other method approved by the Engineer. The cost shall be incidental to Type I steel post, and a soil stabilizer plate will not be required. Refer to Standard Drawing RGX-065, current edition, for installation details of Type D breakaway sign supports. Approved manufacturers for Type D breakaway sign supports have been placed on the list of approved materials. For installations to be installed on sufficiently cured existing concrete, such as a sidewalk, concrete median, etc., Type I steel posts shall be mounted on a Type D Surface Mount. For Type D Surface Mounts use only Redi-Torque Model 280 Surface Mount Slip Base Assembly (part number SMSB) by Xcessories Squared of Auburn, IL. Prior to installation, the Contractor shall submit to the Engineer shop drawings of the Type D Surface Mount. Install the Type D Surface Mount according to all the applicable requirements of the manufacturer (see shop drawings). If a Type D breakaway sign support is specified for a location that has an asphalt surface, the Contractor shall install the Type D breakaway sign support detailed on Standard Drawing RGX-065, current edition. All steel post shall meet the requirements of Section 832. All hardware including, but not limited to, sign post anchors, soil stabilizer plates, nuts, bolts, washers, fasteners, fittings, and bracing, or any other incidentals necessary to erect the signs shall be furnished by the Contractor and will be incidental to the work.

New concrete bases, posts, support anchors, signs, etc. are to be installed prior to dismantling any existing sign(s). The removal of existing signs, posts, and support anchors is to be performed concurrently with the installation of new signs, posts, and support anchors, under the same lane closure during the same work shift. Completely remove existing sign support anchors or remove them to a minimum depth of six (6) inches below existing ground line and backfill the disturbed area to the existing ground line.

When listed on the plans and/or summaries, fabricate Reflective Sign Post Panels from .080 gauge aluminum alloy 5052-H38 or 6061-T6, in accordance with ASTM B-209 and to the size(s) specified. Prepare the side of the aluminum sheet to receive the retroreflective background material according to the recommendations of the sheeting and retroreflective material manufacturer(s). Sheeting for the Reflective Sign Post Panels shall be the same Type and color as the sign installed on the post. Examples include:

- Red, fluorescent yellow, and fluorescent yellow-green (Type XI Sheeting)
- White and yellow (Type XI Sheeting)

Reflective Sign Post Panels shall be 2 inches wide and will typically have a height of 60 inches for rural installations and typically have a height of 84 inches for urban installations. There will be certain instances where a proposed Reflective Sign Post Panel will have a height dimension less than 60 inches; typically, this will be when the bottom of the bottom-most sign is mounted lower than the standard 5 ft minimum mounting height (e.g. 3 ft or 4 ft mount heights). In those cases, the height

of the Reflective Sign Post Panel is expected to closely match (within 1-2 inches) the distance between the top of the anchor or support to the bottom edge of the bottom-most sign. Reflective Sign Post Panels shall have three 3/8" holes (one hole in the top 3", one hole near the center, and one hole in the bottom 3") that align with the holes on the Type I steel post.

All manufactured sheeting signs shall be free of visual defects including, but not limited to: cracks, tears, ridges, humps, discoloration, etc., and defective signs shall be replaced at no additional cost to the Department.

All sign blanks shall be hole punched by the manufacturer for either horizontal or vertical installation. Attach all aluminum sheeting signs to square post with 3/8" all steel rivets and nylon washers. Use bracing as indicated on the plans, summaries, and/or standard signing detail sheets, and/or when directed by the Engineer and/or District Traffic Engineer.

All sign posts shall be attached to anchors with 5/16" corner bolts and 5/16" flanged nuts, and all post and anchor cuts shall be treated with a Cold Galvanizing Compound spray.

Sign posts shall be erected vertically by using a bubble level. The tolerance shall be a two (2) degree angle in any direction. For locations where more than one sign is mounted beside each other, the posts shall be spaced to provide approximately six inches (6") of spacing between signs.

E. Remove & Relocate Sheet Signs. When listed on the plans and/or summaries, and/or as directed by the Engineer and/or District Traffic Engineer, remove the specified existing sheet sign(s) from the existing post(s) and reinstall on a new sign post. Once the specified existing sheet sign(s) have been removed and relocated, and if the existing sign post(s) are no longer needed to support other existing signs, removal of the existing sign post(s) will be paid under the bid item REMOVE SIGN. If any of the existing hardware components (bracing, brackets, bolts, rivets, etc.) are found to have pre-existing damage or are damaged during the Contractor's removal and reinstallation efforts, the Contractor shall provide the necessary replacement hardware for proper re-installation of the sheet sign. These components shall be incidental to the bid item REMOVE AND RELOCATE SHEET SIGNS.

Prior to removing and reinstalling a sheet sign, the Contractor shall first review the existing sheet sign for damage. It is the Contractor's responsibility to notify the Engineer of any existing sheet sign damage prior to removal and relocation of the sheet sign, so that it can be documented that the existing sheet sign had pre-existing damage. If the Contractor does not make the Engineer aware of pre-existing damage prior to detaching the sheet sign from its existing post, the Department will assume the damage was the result of the Contractor's removal and reinstallation efforts. The Contractor shall replace any sheet signs that are damaged during the removal and reinstallation efforts. Replacement of sheet signs damaged by the Contractor shall be incidental to the bid item REMOVE AND RELOCATE SHEET SIGNS.

If the existing sheet sign is found to have pre-existing damage, the Department will provide the Contractor with a new sheet sign to replace the sheet sign with pre-existing damage. Detaching the existing, damaged sheet sign from the existing post and attaching the new, Department-provided sheet sign to the new sign post shall be incidental the bid item REMOVE AND RELOCATE SHEET SIGNS.

F. Remove & Relocate Sign Assemblies. When listed on the plans and/or summaries, and/or as directed by the Engineer and/or District Traffic Engineer, remove the specified existing sign assemblies from the existing location and reinstall in a new location. The Department will consider all signs attached to one or more connected posts as a single sign assembly, no matter how many signs are attached to the existing sign assembly. If any of the existing hardware components (bracing, brackets, bolts, rivets, etc.) are found to have pre-existing damage or are damaged during the Contractor's removal and reinstallation efforts, the Contractor shall provide the necessary replacement hardware for proper re-installation of the sign assembly. These components shall be incidental to the bid item REMOVE AND RELOCATE SIGN ASSEMBLY.

Prior to removing and relocating a sign assembly, the Contractor shall review the existing sign(s) and sign post(s) for damage. It is the Contractor's responsibility to notify the Engineer of any sign or sign post damage prior to removal and relocation of the sign assembly, so that it can be documented that the existing sign and/or sign post had pre-existing damage. If the Contractor does not make the Department aware of pre-existing damage prior to removing a sign assembly from its existing location, the Department will assume the damage was the result of the Contractor's removal and reinstallation efforts. The Contractor shall replace any components of a sign assembly that are damaged during removal and relocation. Replacement of any components damaged by the Contractor shall be incidental to the bid item REMOVE AND RELOCATE SIGN ASSEMBLY.

If an existing sign that is part of a sign assembly to be removed and relocated is found to have pre-existing damage, the Department will provide the Contractor with a new sign to replace the sign with pre-existing damage. Detaching the existing, damaged sign from the existing post and attaching the new, Department-provided sign to the relocated existing post shall be incidental to the bid item REMOVE AND RELOCATE SIGN ASSEMBLY.

If an existing sign assembly that is to be removed and relocated is found to not have an existing soil stabilizer plate, or if the soil stabilizer plate and/or anchor is damaged during removal, then a new soil stabilizer plate and/or anchor shall be provided by the Contractor and shall be incidental to the bid item REMOVE AND RELOCATE SIGN ASSEMBLY.

If an existing sign assembly that is being relocated is not currently mounted on a Type D breakaway sign support, but the plans and/or summaries indicate, or wind load standards dictate, a Type D breakaway sign support or a Type D Surface Mount is required, provide and install the specified Type D support as part of the removal and reinstallation efforts. Type D breakaway sign supports shall be paid under the bid item GMSS TYPE D and Type D Surface Mount supports shall be paid under the bid item GMSS TYPE D (SURFACE MOUNT).

If an existing sign that is being relocated is found to have pre-existing damage to one or more of the sign post, the Department will <u>NOT</u> utilize the bid item REMOVE AND RELOCATE SIGN ASSEMBLY for removing and relocating such a sign assembly. Instead, the Department will require the Contractor to install a new sign post(s) at the new location, and pay for the new post(s) under the bid item STEEL POST TYPE I. Detaching the existing sign(s) from the existing, damaged post(s) and attaching the existing sign(s) to the new sign post(s) shall be incidental to the bid item STEEL POST TYPE I. Any hardware that is needed to complete the installation shall also be incidental to the bid item STEEL

POST TYPE I. Removal of the existing damaged post(s) and any other sign components not needed will be paid under the bid item REMOVE SIGN.

G. Property Damage. The Contractor shall be responsible for all damage to public and/or private property resulting from the Contractor's activities. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.

H. Coordination with Utility Companies. Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs due to the Contractor's operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.

I. Caution. The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

J. Control. Perform all work under the absolute control of the Department. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces, and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties.

Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and the Engineer's decision shall be final and binding upon the Contractor.

K. Clean Up, Disposal of Waste. Clean up the project area as work progresses. Dispose of all removed concrete, debris, and other waste as per Section 204.03.08. The Department will incur no cost to obtain the disposal sites. The Department will NOT make direct payment for disposal of waste and debris from the project. Existing anchors, signs, posts, and any other hardware or material removed from the site are to become the property of the Contractor. See Special Provision for Waste and Borrow Sites.

L. Final Dressing, Seeding and Protection. Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

IV. METHOD OF MEASUREMENT

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

B. Site Preparation. Other than the bid items listed, the Department will NOT measure Site Preparation for payment, but shall be incidental to the project bid items.

C. Signs and Reflective Sign Post Panels. The Department will measure the finished in-place area of signs and Reflective Sign Post Panels in Square Feet.

D. Sign Posts. The Department will measure the finished in-place length of sign posts in Linear Feet, from the top of the anchor, or top of the sign support, to the top of the sign post. Laps, cutoffs, excess, and waste will NOT be measured for payment.

E. Type D Breakaway Sign Supports. The Department will measure Type D breakaway sign supports as Each support installed.

F. Type D Surface Mounts. The Department will measure Type D Surface Mounts as Each surface mount installed.

G. Class A Concrete for Signs. The Department will measure the Class A Concrete used in conjunction with Type D breakaway sign support installations in Cubic Yards. Any concrete that is required as backfill due to hitting rock during a standard installation shall be incidental to the bid item STEEL POST TYPE I, and soil stabilizers will not be required.

H. Remove Sign. The Department will consider all signs attached to one or more connected posts as a single sign. The Department will measure as Each sign assembly removed and NOT each individual sign removed.

I. Remove & Relocate Sheet Signs. The Department will measure sheet signs removed from an existing sign post and reinstalled on a new sign post as Each sheet sign removed and reinstalled. as indicated in the contract documents, or as directed by the Engineer. The new sign post shall be measured as indicated in paragraph D. of this section.

J. Remove & Relocate Sign Assemblies. The Department will consider all signs attached to one or more connected posts as a single sign assembly. When the contract documents indicate that an existing sign assembly is to be removed from its existing location and reinstalled in a new location, the Department will measure and pay for "Remove and Relocate Sign Assembly" as each sign assembly removed and relocated; NOT each individual sign removed and relocated.

K. Items Provided by KYTC. The Department will NOT measure for payment the installation of signs and/or surface mounts provided by KYTC. These activities shall be incidental to the bid item STEEL POST TYPE I.

L. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection. The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, Final Dressing and Seeding and Protection.

V. BASIS OF PAYMENT

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

B. Signs and Reflective Sign Post Panels. The Department will make payment for the completed and accepted quantities under the bid item SBM ALUM SHEET SIGNS .125 IN or .080 IN. The Department will consider payment full compensation for all work and incidentals necessary to install the signs and any Reflective Sign Post Panels, as required by these notes and the details found elsewhere in the plans/proposal, at the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.

C. Sign Posts. The Department will make payment for the completed and accepted quantities under the bid item STEEL POST TYPE I. The Department will consider payment full compensation for all work and incidentals necessary to install the sign posts as required by these notes and the details found elsewhere in the plans/proposal.

D. Type D Breakaway Sign Supports. The Department will make payment for the completed and accepted quantities under the bid item GMSS TYPE D. The Department will consider payment full compensation for all work and incidentals necessary to install the Type D breakaway sign supports as required by Standard Drawing RGX-065, current edition.

E. Type D Surface Mounts. The Department will make payment for the completed and accepted quantities under the bid item GMSS TYPE D (SURFACE MOUNT). The Department will consider payment full compensation for all work and incidentals necessary to install the Type D surface mounts according to all applicable manufacturer requirements.
NOTE: The permissible Type D Surface Mount alternative is: Redi-Torque Model 280 Surface Mount Slip Base Assembly (part number SMSB) by Xcessories Squared of Auburn, IL

F. Class A Concrete for Signs. The Department will make payment for the completed and accepted quantities, used in conjunction with Type D breakaway sign support installations, under the bid item

CLASS A CONCRETE FOR SIGNS. The Department will consider payment full compensation for all work and incidentals necessary to install the concrete as required by Standard Drawing RGX-065, current edition.

G. Remove Sign. The Department will make payment for the completed and accepted quantities under the bid item REMOVE SIGN. The Department will consider payment full compensation for all work and incidentals necessary to remove the existing signs, posts, anchors, and any other sign material or hardware, from the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.

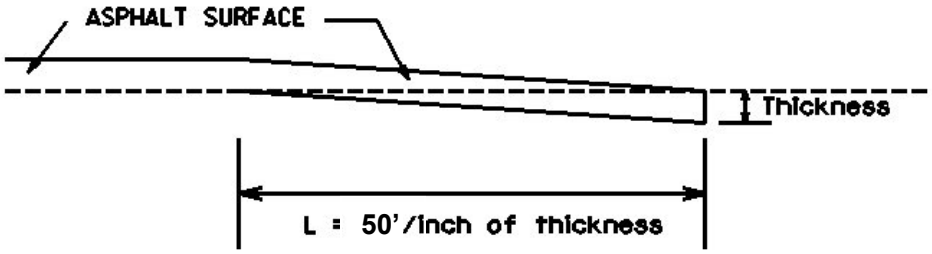
H. Remove & Relocate Sheet Signs. The Department will make payment for the completed and accepted quantities under the bid item REMOVE AND RELOCATE SHEET SIGNS. Any hardware that is needed to complete the removal and reinstallation shall be incidental. The Department will consider payment full compensation for all work and incidentals necessary to remove and reinstall the existing sheet signs as indicated on the plans, summaries, and/or as directed by the Engineer.

I. Remove & Relocate Sign Assemblies. The Department will make payment for the completed and accepted quantities under the bid item REMOVE AND RELOCATE SIGN ASSEMBLY. Any hardware that is needed to complete the removal and reinstallation shall be incidental. The Department will consider payment full compensation for all work and incidentals necessary to remove and reinstall the existing sign assembly as indicated on the plans, summaries, and/or as directed by the Engineer

SPECIAL NOTE FOR EDGE KEY

Construct Edge Keys at the beginning of project, end of project, at railroad crossings, 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



Thickness = 1.25 Inches

L = 62.5 LF

L = Length of Edge Key

TRAFFIC CONTROL PLAN

TRAFFIC CONTROL GENERAL

Except as provided herein, traffic shall be maintained in accordance with the current editions of the Manual on Uniform Traffic Control Devices (MUTCD), Standard Specifications, Supplemental Specifications, and the Standard and Sepia Drawings. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic shall be paid at the lump sum bid price to "Maintain and Control Traffic".

Contrary to Section 106.01, traffic control devices used on this project may be new, or used in like new condition, at the beginning of the work and maintained in like new condition until completion of the work. Any temporary traffic control items, devices, materials, and incidentals shall remain the property of the contractor unless otherwise addressed, when no longer needed.

PROJECT PHASING & CONSTRUCTION PROCEDURES

At locations with three or more lanes, unless otherwise approved by the engineer, maintain one lane of traffic in each direction at all times during construction. At locations with two lanes, utilizing appropriate traffic control devices and flaggers, maintain two 10-foot lanes of traffic during construction, utilizing appropriate traffic control devices. The existing centerline rumble strip will be removed using 1.5" Asphalt Mill and Overlay (one foot on either side of the centerline), maintain the white edgeline opposite of the trenching and temporarily stripe the two 10-foot lanes. Maintain a 3.5-foot offset from the trench and traffic.

Reduce the speed limit to 45 MPH. Use 25' barrel spacing.

NOTE: During any lane closure, make provisions for the passage of vehicles of up to 16 feet in width. If traffic should be stopped due to construction operations, and a school bus or emergency vehicle on an official run arrives on the scene, make provisions for the passage of the school bus or emergency vehicle as quickly as possible.

Do not complete shoulder milling & trenching and lane closures in the winter where the trench would not be filled in with asphalt.

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

Unless otherwise approved by the Engineer, no lane closures will be allowed during the following times:

Labor Day Weekend	3 pm Friday, August 29, 2025 – 8 pm Monday, September 1, 2025
Thanksgiving Holiday	3 pm Wednesday, November 26, 2025 – 8 pm Sunday, November 30, 2025
Christmas Holiday	7 am Wednesday, December 24, 2025 – 8 pm Thursday, December 25, 2025
New Year's Day Holiday	7 am Wednesday, December 31, 2025 – 8 pm Thursday, January 1, 2026
Easter Weekend	3 pm Friday, April 3, 2026 – 8 pm Sunday, April 5, 2026
Memorial Day Weekend	3 pm Friday, May 22, 2026 – 8 pm Monday, May 25, 2026
Independence Day	7 am Friday, July 3, 2026 – 8 pm Sunday, July 5, 2026

At the discretion of the Engineer, additional days and hours may be specified when lane closures will not be allowed.

The Contractor shall submit proposed lane closure days and times to the Engineer at least 7 calendar days in advance for approval. Liquidated Damages will be assessed for each hour or fraction of an hour that a lane closure is in place outside of an approved time period. See the Special Notes for Completion Dates & Liquidated Damages for details on the Liquidated Damages amount.

LANE CLOSURES

Long term lane closures shall not be allowed; therefore, lane closures will not be measured for payment. Do not leave lane closures in place during non-working hours and prohibited periods

TEMPORARY SIGNS

Temporary signposts 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. Temporary signs, including any splices, shall be installed according to manufacturer's specifications and installation recommendations. Contrary to section 112.04.02, only long-term temporary signs (temporary signs intended to be continuously in place for more than 3 days) will be measured for payment. Short-term temporary signs (temporary 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 approximately 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. If the damage or mechanical/electrical failure is identified during active work operations, repair or replace the Changeable Message Sign within 6 hours. If the damage or mechanical/electrical failure is identified when there are no active work operations on the project, repair or replace the Changeable Message Sign within 12 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/or relocated during the duration of the project. The Department will not measure for payment any replacements for damaged Changeable Message Signs or any

changeable message signs the Engineer directs to be replaced due to poor condition or readability. Retain possession of the Changeable Message Signs upon completion of the work.

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.

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. Access to fire hydrants must also be maintained at all times

THERMOPLASTIC PAVEMENT MARKINGS

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

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 exception:

> 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 un-resurfaced 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.

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 oncoming traffic in both directions of travel. Provide warning signs as shown on the Standard Drawings or as directed by the Engineer. 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.

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

Traffic Control Plan
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USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS

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

Application

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

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

CMS should not be used for:

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

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Messages

Basic principles that are important to providing proper messages and ensuring 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
- No 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 ensure that the sign 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 theft (if necessary)
- Do not place in sags or just beyond crest
- Check for reflection of sun to prevent the blinding of motorist
- Should be turned ~3 degrees outward from perpendicular to the edge of pavement
- Bottom of sign should be 7 feet above the elevation of edge of roadway
- Should be removed when not in use

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Standard Abbreviations

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

Word	Abbrev	Example
Access	ACCS	CRASH AHEAD/ USE ACCS RD NEXT RIGHT
Alternate	ALT	CRASH 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	CRASH ON AA HWY/ EXPECT DELAYS
Hour	HR	CRASH 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 DELAYS I75/ USE ALT RTE
Mile	MI	CRASH 3 MI AHEAD/ USE ALT RTE
Minor	MNR	CRASH 3 MI MNR DELAY
Minutes	MIN	CRASH 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	CRASH 3 MI/ 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

Traffic Control Plan
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Standard Abbreviations (cont.)

Word	Abbrev	Example
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 NOT 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
CRASH AHEAD	ALL TRAFFIC EXIT RT
CRASH/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

Traffic Control Plan
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Typical Messages (cont.)

Reason/Problem	**Action**
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	

CENTERLINE BUFFER PROJECT
HANCOCK COUNTY
US 60

GENERAL SUMMARY

CENTERLINE BUFFER

Item No.	Item	Unit	Quantity
PAVEMENT			
190	LEVELING & WEDGING PG64-22	TON	1,826
214	CL3 ASPH BASE 1.00D PG64-22	TON	5,030
301	CL2 ASPH SURF 0.38D PG64-22	TON	2,807
356	ASPHALT MATERIAL FOR TACK	TON	48
388	CL3 ASPH SURF 0.38B PG64-22	TON	4,499
2676	MOBILIZATION FOR MILL & TEXT	LS	1
2677	ASPHALT PAVE MILLING & TEXTURING	TON	742
ROADWAY			
2562	TEMPORARY SIGNS	SQFT	200
2650	MAINTAIN & CONTROL TRAFFIC	LS	1
2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	2
2697	EDGELINE RUMBLE STRIPS	LF	39,058
2726	STAKING	LS	1
6511	PAVE STRIPING-TEMP PAINT-6 IN	LF	69,234
6542	PAVE STRIPING-THERMO-6 IN W	LF	40,319
6543	PAVE STRIPING-THERMO-6 IN Y	LF	28,915
6569	PAVE MARKING-THERMO CROSS HATCH Y	SQFT	965
6574	PAVE MARKING-THERMO CURV ARROW	EACH	6
6578	PAVE MARKING-THERMO MERGE ARROW	EACH	3
10020NS	FUEL ADJUSTMENT	DOLL	22,044
10030NS	ASPHALT ADJUSTMENT	DOLL	55,368
20071EC	JOINT ADHESIVE	LF	61,413
20458ES403	CENTERLINE RUMBLE STRIPS	LF	39,058
20748ED	SHOULDER MILLING/TRENCHING	SQYD	12,195
23608EC	YELLOW PAINT FOR MEDIAN SAFETY NOSE	SQFT	21
SIGNING			
6407	SBM ALUM SHEET SIGNS .125 IN	SQFT	89
6410	STEEL POST TYPE 1	LF	176
21373ND	REMOVE SIGN	EACH	2
24631EC	BARCODE SIGN INVENTORY	EACH	16
MISC			
2569	DEMOBILIZATION	LS	1

CENTERLINE BUFFER PROJECT
HANCOCK COUNTY
US 60

SHOULDER MILL & TRENCH SUMMARY

Side of Road	Begin		End		Length (LF)	Trench Width (LF)	Trench Area (SY)
	MilePoint	Station	MilePoint	Station			
LT	14.032	740+88	14.262	753+03	1,215	6	811
LT	14.281	754+05	14.583	770+00	1,595	6	1,064
RT	14.561	768+82	14.743	778+43	961	6	641
LT	14.716	776+99	15.060	795+15	1,816	6	1,211
LT	15.283	806+95	17.689	933+97	12,702	6	8,468
				Total	**18,289**	**Total**	**12,195**

PAVING SUMMARY

Item Code	Item Description	Depth (IN)	Travel Lanes Area (SY)	Shoulders Area (SY)	Full Depth Trench (SY)	Total (TON)
388	CL3 SURF 0.38B PG64-22	1.25	60,218			4,140
388 [2]	CL3 SURF 0.38B PG64-22	1.50	4,340			359
301	CL2 SURF 0.38D PG64-22	1.25		40,824		2,807
214	CL3 BASE 1.00D P64-22	3.00			14,227	2,347
214	CL3 BASE 1.00D P64-22	4.00			12,195	2,683
190 [1]	LEVELING & WEDGING PG64-22	--				1,826

[1] ASSUMED 25% OF SURFACE QUANTITY FOR LEVELING & WEDGING AS NEEDED

[2] MILL AND OVERLAY 1.5"AT CENTERLINE AS SHOWN ON TYPICAL.

CENTERLINE BUFFER PROJECT
HANCOCK COUNTY
US 60

TRUCK CLIMBING & PASSING ZONE SUMMARY

Side of Road	Begin		End		Length (LF)	Comments
	MilePoint	Station	MilePoint	Station		
LT	14.276	753+79	14.452	763+05	926	Passing Zone
RT	14.452	763+05	14.644	773+23	1,017	Passing Zone
LT	14.644	773+23	14.782	780+48	725	Passing Zone
RT	14.823	782+64	14.934	788+52	589	Passing Zone
LT	15.320	808+88	15.516	819+25	1,036	Passing Zone
RT	15.516	819+26	15.703	829+09	984	Passing Zone
LT	15.703	829+10	15.899	839+46	1,036	Passing Zone
RT	15.899	839+47	16.088	849+43	996	Passing Zone
LT	16.088	849+44	16.278	859+47	1,003	Passing Zone
RT	16.278	859+47	16.466	869+39	991	Passing Zone
LT	16.466	869+39	16.654	879+34	994	Passing Zone
RT	16.654	879+34	16.831	888+66	931	Passing Zone
LT	16.831	888+66	17.029	899+13	1,047	Passing Zone
RT	17.029	899+14	17.208	908+59	945	Passing Zone
LT	17.208	908+59	17.395	918+48	989	Passing Zone
LT	17.385	917+95	17.689	933+97	1,602	Truck Climbing Lane

CENTERLINE BUFFER PROJECT
HANCOCK COUNTY
US 60

MILLING SUMMARY

EDGE KEY

Side of Road	MilePoint	Station	Assumed Taper Rate	Length Edge Key (FT)	Width (FT)	Depth (IN)	Milling (TON)
--	13.990	738+68	50 FT/IN	62.50	44.0	1.25	10.6
LT	14.014	739+95	25 FT/IN	31.25	66.5	1.25	8.0
RT	14.271	753+50	25 FT/IN	31.25	25.8	1.25	3.1
LT	14.272	753+54	25 FT/IN	31.25	34.8	1.25	4.2
LT	15.231	804+21	25 FT/IN	31.25	63.1	1.25	7.6
--	17.689	933+97	50 FT/IN	62.50	56.0	1.25	13.4
						TOTAL	46.9

ADDITIONAL MILLING

Begin		End		Length (FT)	Width (LF)	Depth (IN)	Milling (TON)
MilePoint	Station	MilePoint	Station				
CENTERLINE RUMBLE MILLING							
13.990	738+68	17.689	933+97	19,529	2	1.5	359
LONGITUDINAL EDGE KEY MILLING							
FROM SHOULDER MILL & TRENCH SUMMARY				18,289	1	3	336
						TOTAL	695

Item No.	Item	Unit	Quantity
2677	ASPHALT PAVE MILLING & TEXTURING	TOTAL	742

Sign Summary — Hancock County — US 60 — Route

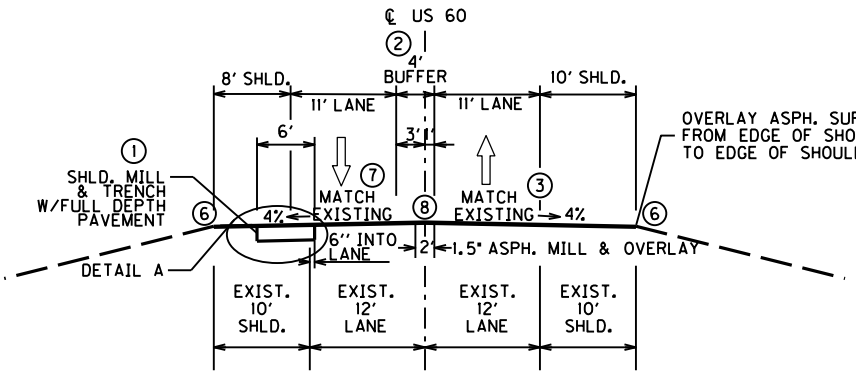
SIGN LOCATION						MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)	SHEETING			SBM Alum Sheet Signs 0.080 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)	Installation Type	Bracing Req'd	# of Sign Posts	Estimated Length of 2" Post (ft)	Estimated Length of 2-1/2" Post (ft)	2-1/4" Stiffener Req'd (incdntl to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	Facing Traffic Traveling					Text/ Symbol Color	Background Color	Sheeting Type										
	RT		753+88	14.278	NB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	LT		773+20	14.644	SB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	RT		773+20	14.644	NB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	lt		788+52	14.934	SB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	RT		808+90	15.320	NB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	RT		829+05	15.702	NB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	LT		829+05	15.702	SB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	RT		849+39	16.087	NB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	LT		849+39	16.087	SB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	RT		869+39	16.466	NB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	LT		869+39	16.466	SB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	RT		888+62	16.830	NB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	LT		888+62	16.830	SB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	LT		908+20	17.201	SB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	RT		908+60	17.208	NB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1
	RT		956+20	18.110	NB	W14-3	No Passing Zone		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate		1	11			11	1

Summary of Items		
SBM Alum Sheet Signs 0.080 INCH	0.00	SQ FT
SBM Alum Sheet Signs 0.125 INCH	88.96	SQ FT
Barcode Sign Inventory	16	EACH
Remove Signs [1]	2	EACH
Remove & Relocate Sign Assemblies		EACH

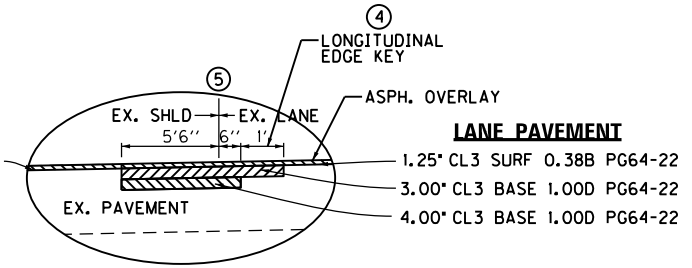
Summary of Items		
Steel Post - Type 1	176	LF
GMSS Type D	0	EACH
GMSS Type D (Surface Mount)	0	EACH
Class A Concrete for Signs	0	CU YD

[1] REMOVE ALL EXISTING NO PASSING ZONE SIGNS AT THE SAME TIME AS INSTALLATION AS NEW NO PASSING ZONE SIGNS. SEE PLAN SHEETS FOR LOCATIONS.

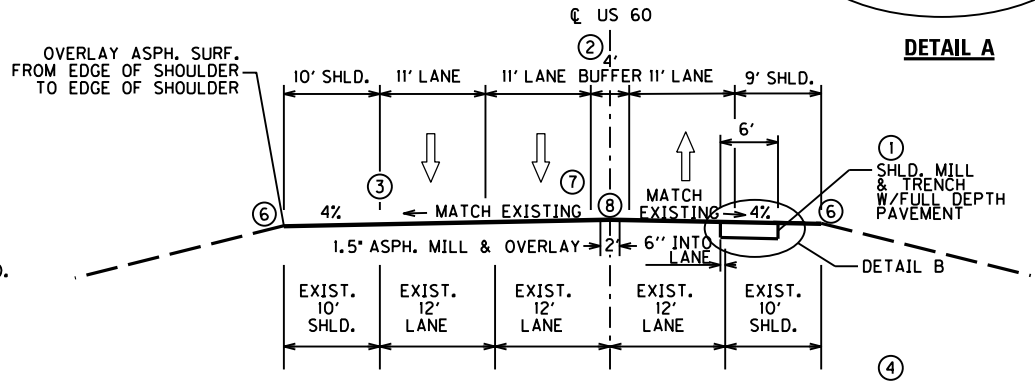
TYPICAL SECTION

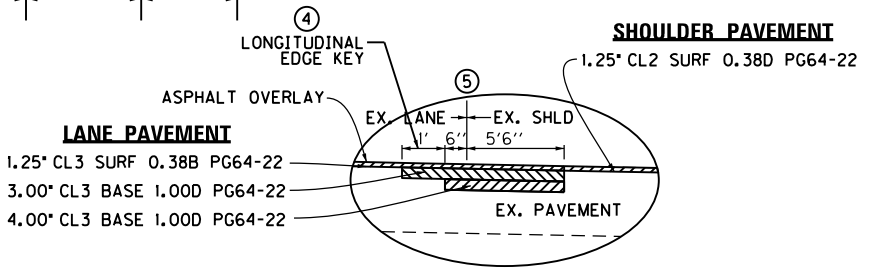


1. SEE PLAN SHEET AND SUMMARY SHEETS FOR FURTHER DETAILS ON SHOULDER MILL & TRENCHING LOCATIONS. TYPICAL MAY SWITCH TO ALTERNATE SIDES OF THE ROADWAY. TRENCHING WILL OVERLAP SIDES OF THE ROAD WHEN SWITCHING.
2. SEE STRIPING DETAIL SHEET R3 FOR DETAILS ON STRIPING AND RUMBLE STRIPS.
3. THIS PROPOSED EDGELINE TO MATCH EXISTING EDGELINE. DIMENSION REMAINING LANES FROM THIS EDGELINE TOWARDS OPPOSITE SHOULDER.
4. LONGITUDINAL EDGE KEY TO BE USED WHERE FULL DEPTH IS ADJACENT TO OVERLAY AND SHALL BE PAID BY TON.
5. INSIDE EDGE OF TRENCH TO BE 6'' INSIDE EXIST. WHITE EDGE LINE MEASURED FROM INSIDE EDGE. 6' ONTO THE SHOULDER.
6. ASPHALT SURFACE THICKNESS AT THE OUTSIDE EDGE OF THE PAVED SHOULDER IS TO BE 1.0'' THICK, WHERE EXISITING SITE CONDITIONS PERMIT.
7. MATCH EXISTING LANE CROSS SLOPE. MAINTAIN A MINIMUM OF 2% SLOPE, UTILIZING LEVELING & WEDGING AS NEEDED.
8. MILL 2' TOTAL WIDTH, 1' EITHER SIDE OF CENTERLINE AT 1.5" DEPTH TO REMOVE EXISTING RUMBLE STRIP. PAVE WITH 1.5" CL3 SURF 0.38B PG64-22.



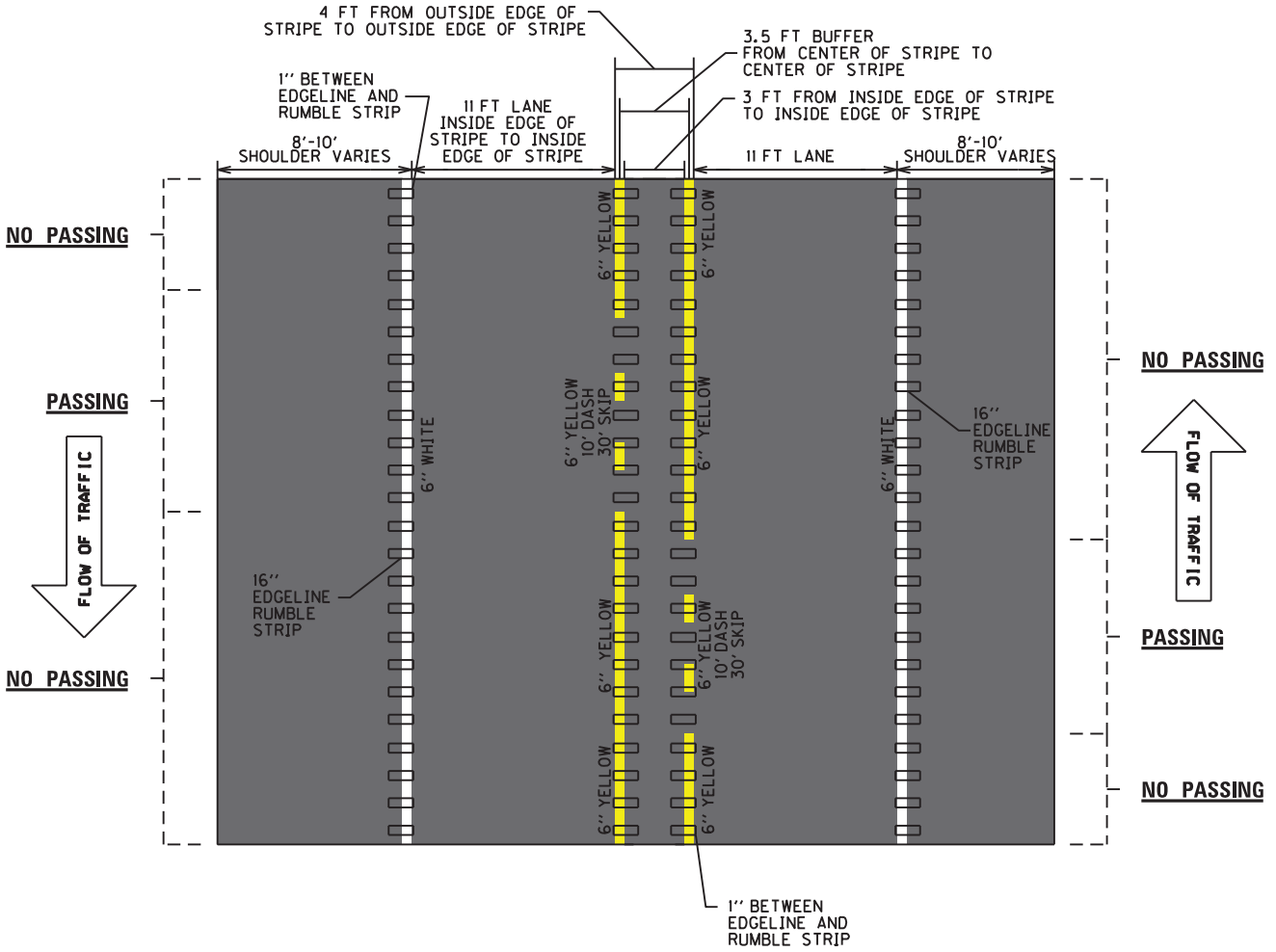
DETAIL A

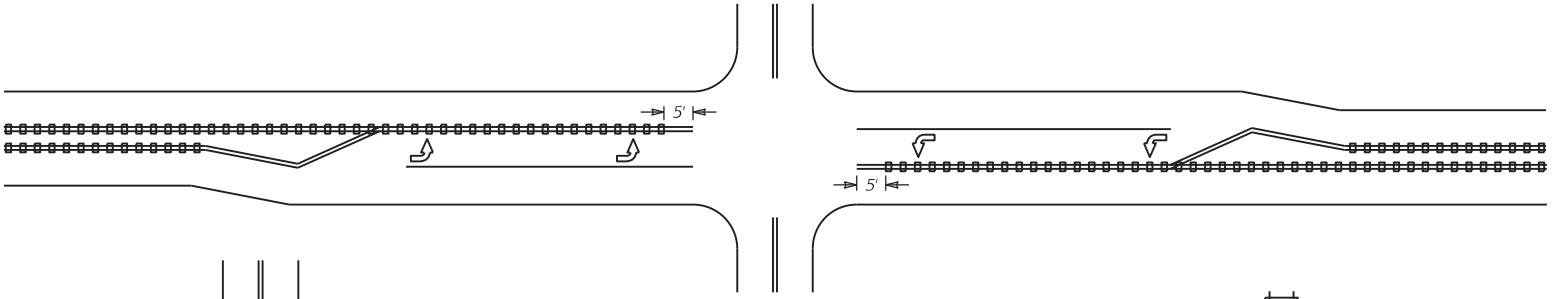




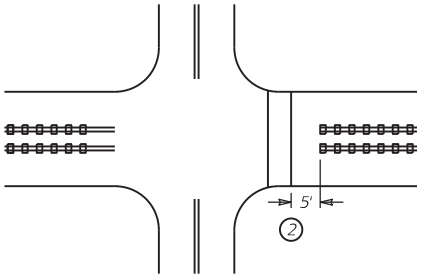
DETAIL B

STRIPING & RUMBLE STRIP PLACEMENT DETAIL

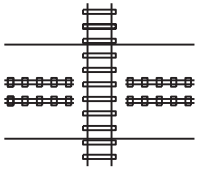




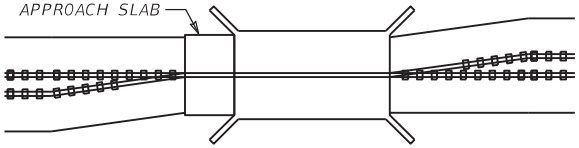
INTERSECTIONS WITH LEFT-TURN LANES (1)



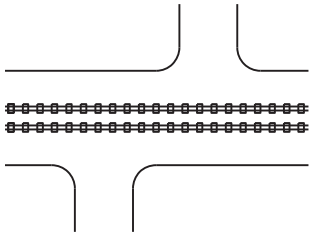
INTERSECTIONS WITHOUT LEFT-TURN LANES (1)



HIGHWAY-RAIL GRADE CROSSINGS (3)



BRIDGE DECK/APPROACH SLAB (4)



DRIVEWAYS/MINOR
COMMERCIAL ENTRANCES (5)

~ 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.

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS.
TPR-105, TPR-110, TPR-120,
AND TPR-125

BID ITEM AND UNIT TO BID
CENTERLINE RUMBLE STRIPS LF

COORDINATE SYSTEM

Coordinates are based on State Plane Coordinate System Single Zone and in U.S. Survey Feet.

	STATION	MILEPOINT
BEGIN CONSTRUCTION:	738+68.30	13.990
END CONSTRUCTION:	933+96.61	17.689

GEOMETRIC CONTROL POINTS - US 60			
Point Type	Station	Northing	Easting
START	712+55.08	3842855.296	4643691.395
TS	722+04.25	3842655.918	4644619.388
HPI	726+00.19	3842550.545	4645000.767
CS	727+68.87	3842455.943	4645143.147
ST	729+93.87	3842320.073	4645322.382
TS	745+55.32	3841338.585	4646536.792
HPI	748+64.93	3841148.593	4646781.217
CS	749+74.44	3841089.137	4646873.298
HPI	753+95.57	3840870.715	4647233.346
HPI	768+77.65	3840108.705	4648504.525
PC	769+34.55	3840079.454	4648553.322
HPI	772+92.15	3839895.59	4648860.043
PT	776+44.94	3839633.111	4649102.917

GEOMETRIC CONTROL POINTS - US 60			
Point Type	Station	Northing	Easting
SC	794+98.47	3838270.701	4650359.602
HPI	801+86.40	3837745.867	4650804.352
CS	808+35.11	3837062.86	4650886.547
ST	810+35.11	3836863.699	4650904.656
HPI	826+07.41	3835296.152	4651026.807
PC	826+24.12	3835279.494	4651028.105
HPI	832+18.13	3834687.278	4651074.253
PT	838+07.91	3834117.125	4651240.909
TS	881+90.31	3829910.742	4652470.437
SC	883+40.31	3829767.047	4652513.461
HPI	894+04.09	3828752.05	4652831.905
CS	904+15.29	3828047.772	4653629.161
ST	905+65.29	3827949.946	4653742.868

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

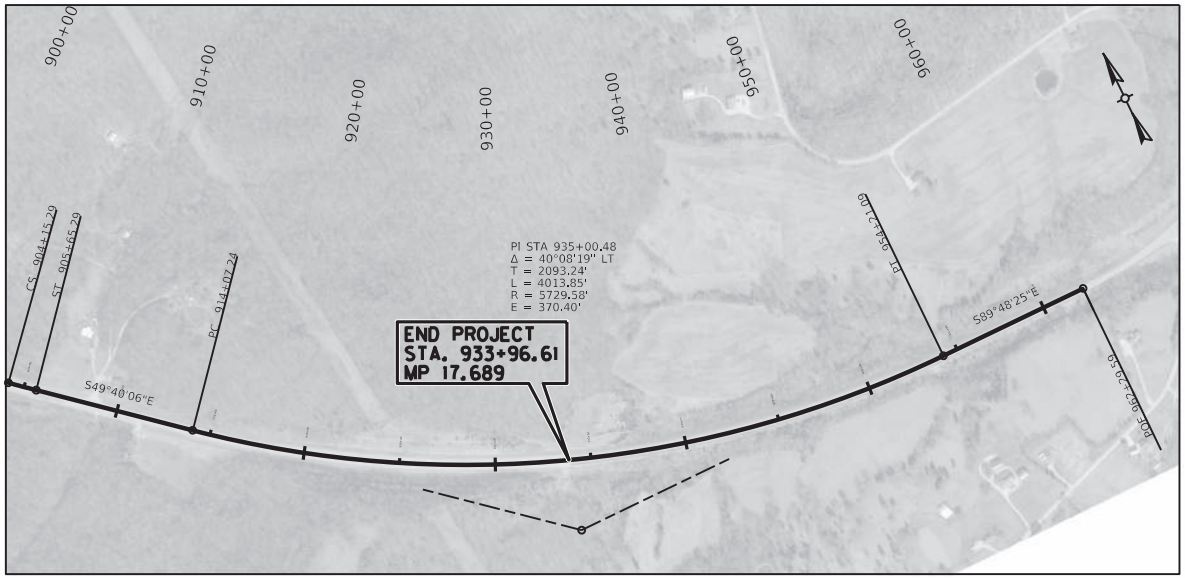
DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
COORDINATE CONTROL 1 OF 2

0' 1000' 2000' 4000'
HORIZONTAL SCALE: 1"=1000'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R5

OpenRoads Designer v23.00.01.11 USER: ADEGRUCCIO
FILE NAME: C:\PWWORKING\EAST01\D4493270\HANCOCK_US60_COORD CONTROL.DGN

GEOMETRIC CONTROL POINTS - US 60			
Point Type	Station	Northing	Easting
PC	914+07.24	3827405.027	4654384.694
HPI	935+00.48	3826050.258	4655980.395
PT	954+21.09	3826043.2	4658073.624
END	962+29.59	3826040.474	4658882.12



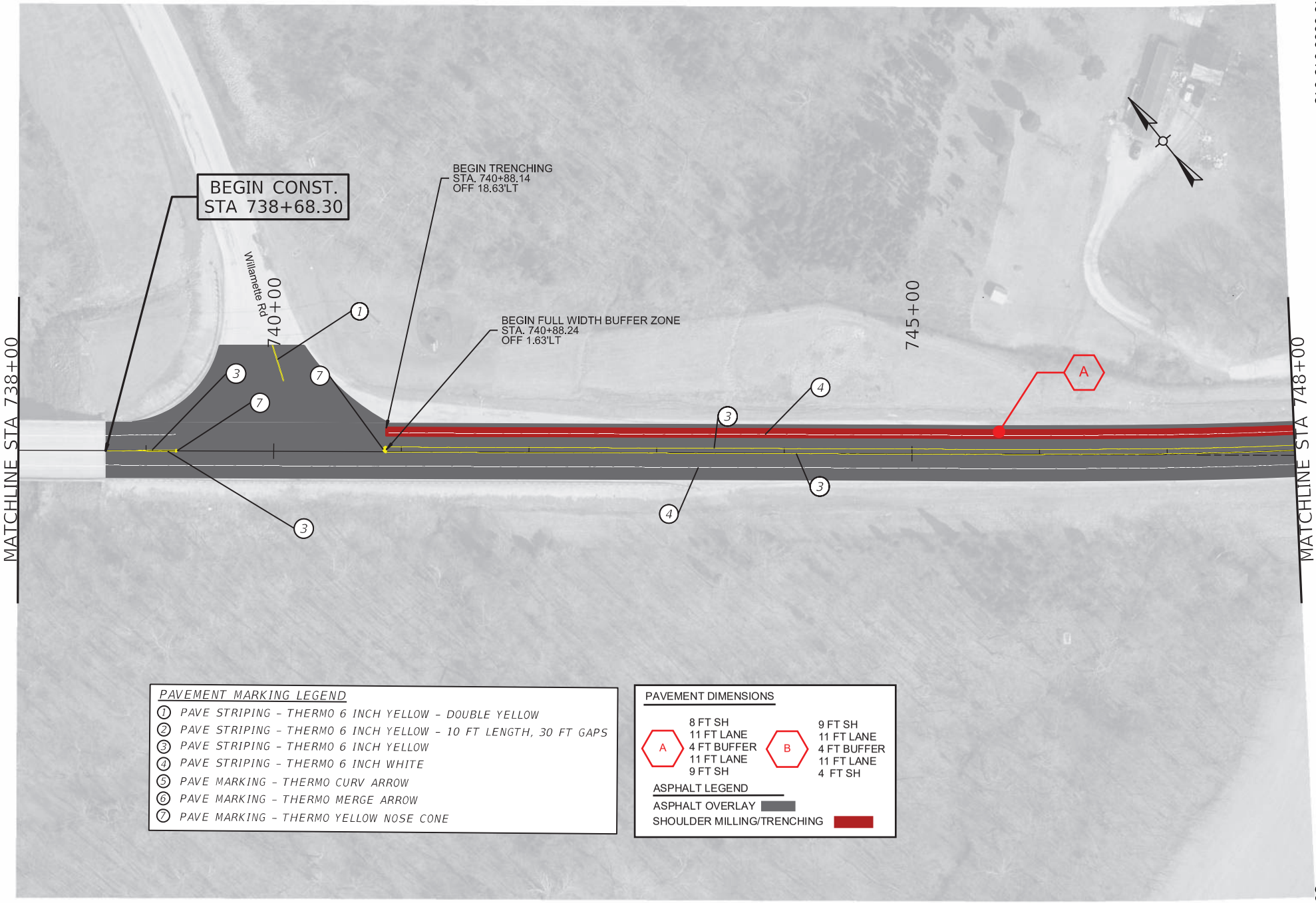
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
COORDINATE CONTROL 2 OF 2

0' 1000' 2000' 4000'
HORIZONTAL SCALE: 1"=1000'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R6

OpenRoads Designer v23.00.01.11 USER: ADEGRUCCIO
FILE NAME: C:\PWWORKING\EAST01\D4493270\HANCOCK_US60_COORD CONTROL 2 OF 2.DGN



PAVEMENT MARKING LEGEND

1. PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW
2. PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS
3. PAVE STRIPING - THERMO 6 INCH YELLOW
4. PAVE STRIPING - THERMO 6 INCH WHITE
5. PAVE MARKING - THERMO CURV ARROW
6. PAVE MARKING - THERMO MERGE ARROW
7. PAVE MARKING - THERMO YELLOW NOSE CONE

PAVEMENT DIMENSIONS

A	8 FT SH 11 FT LANE 4 FT BUFFER 11 FT LANE 9 FT SH
B	9 FT SH 11 FT LANE 4 FT BUFFER 11 FT LANE 4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

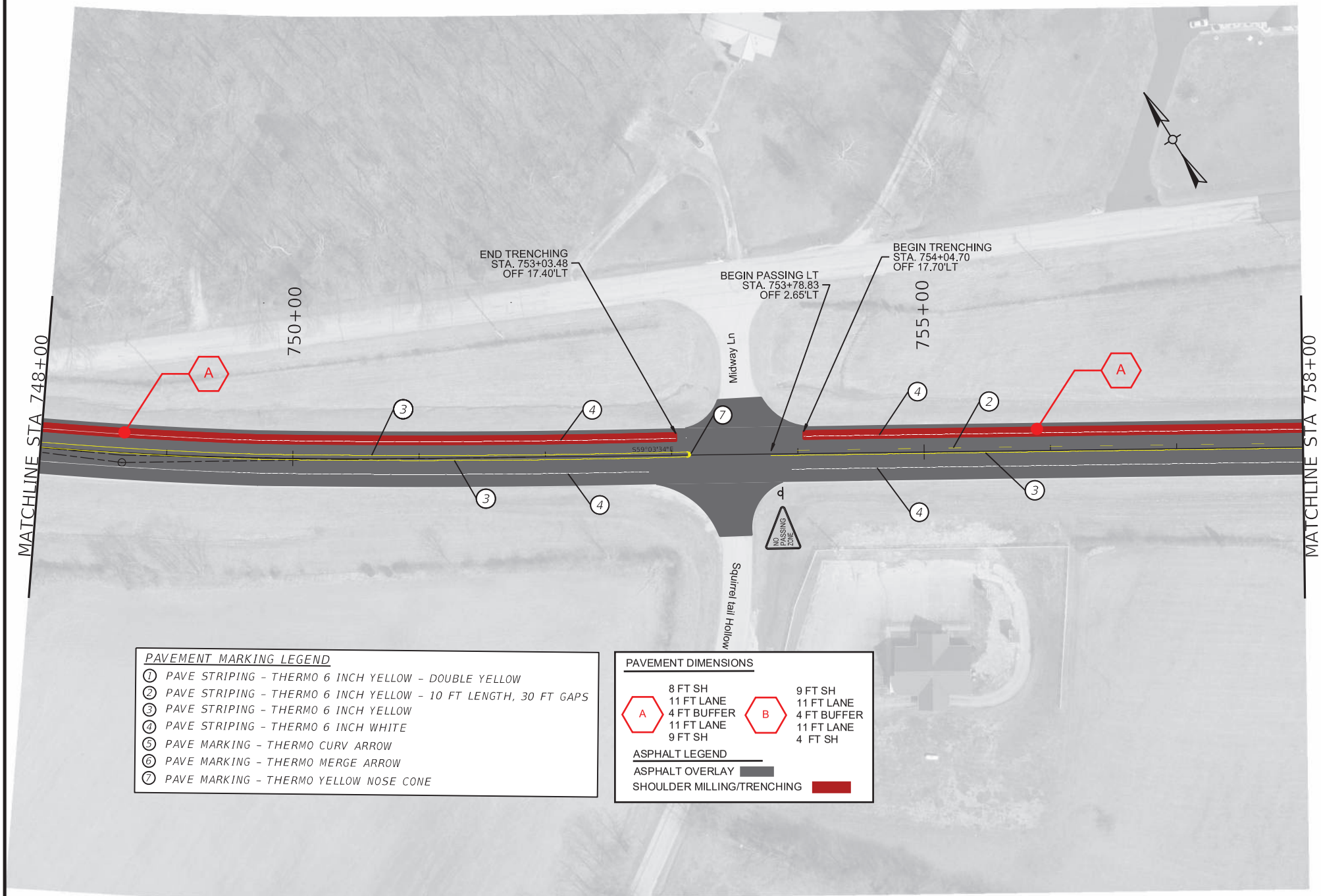
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 738+00.00 TO STA. 748+00.00

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R7

OpenRoads Designer v23.00.01.11
USER: KEKESSLER
FILE NAME: C:\PWWORKING\EAST01\D4493270\HANCOCK_US60_SHEETS.DGN



PAVEMENT MARKING LEGEND

1. PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW
2. PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS
3. PAVE STRIPING - THERMO 6 INCH YELLOW
4. PAVE STRIPING - THERMO 6 INCH WHITE
5. PAVE MARKING - THERMO CURV ARROW
6. PAVE MARKING - THERMO MERGE ARROW
7. PAVE MARKING - THERMO YELLOW NOSE CONE

PAVEMENT DIMENSIONS

A: 8 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 9 FT SH

B: 9 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

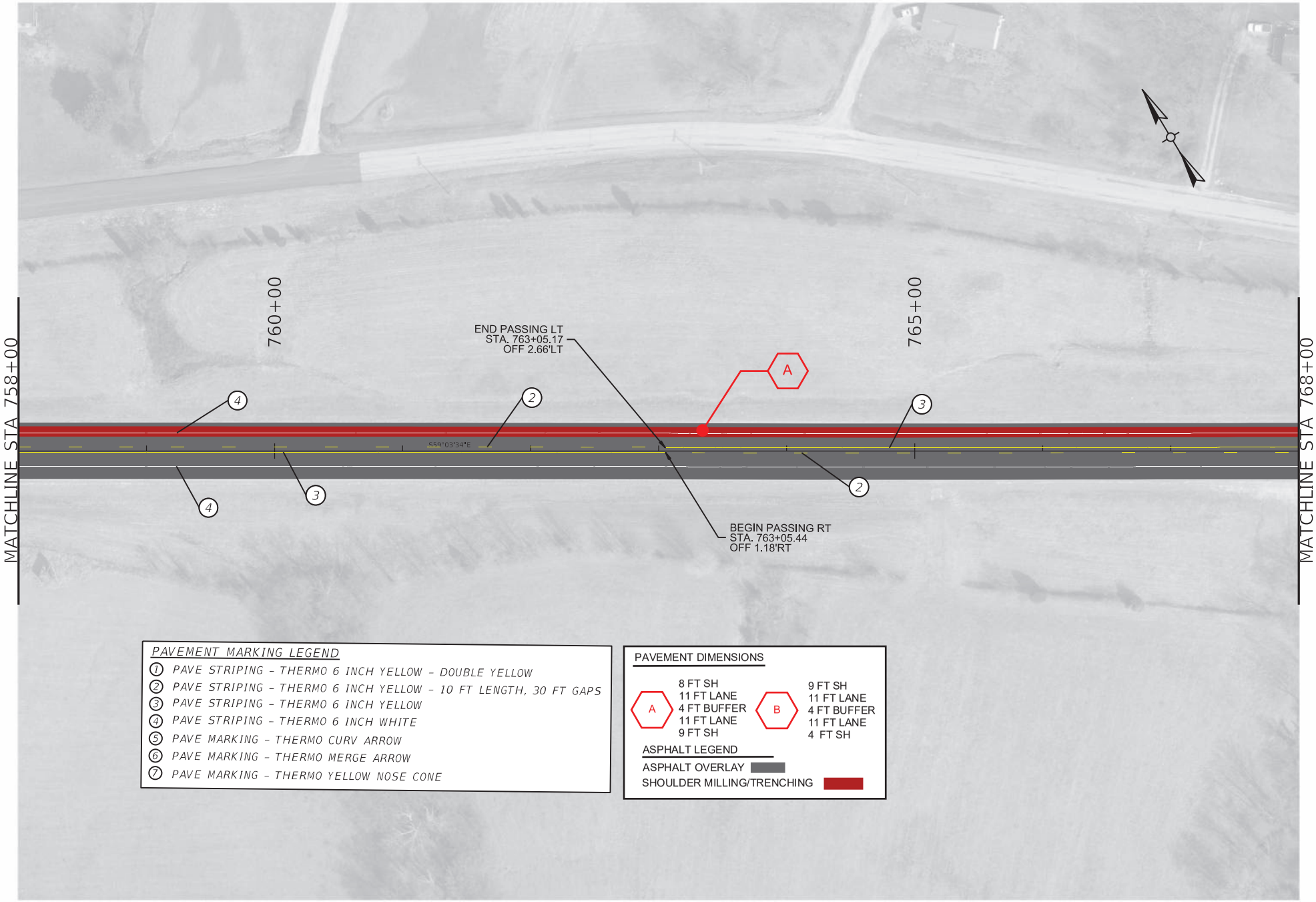
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 748+00.00 TO STA. 758+00.00

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R8

OpenRoads Designer v23.00.01.11
USER: KEKESSLER
FILE NAME: C:\PWWORKING\EAST01\D4493270\HANCOCK_US60_SHEETS.DGN



PAVEMENT MARKING LEGEND

1. PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW
2. PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS
3. PAVE STRIPING - THERMO 6 INCH YELLOW
4. PAVE STRIPING - THERMO 6 INCH WHITE
5. PAVE MARKING - THERMO CURV ARROW
6. PAVE MARKING - THERMO MERGE ARROW
7. PAVE MARKING - THERMO YELLOW NOSE CONE

PAVEMENT DIMENSIONS

A: 8 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 9 FT SH

B: 9 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 758+00.00 TO STA. 768+00.00

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R9

OpenRoads Designer v23.00.01.11
USER: KEKESSLER
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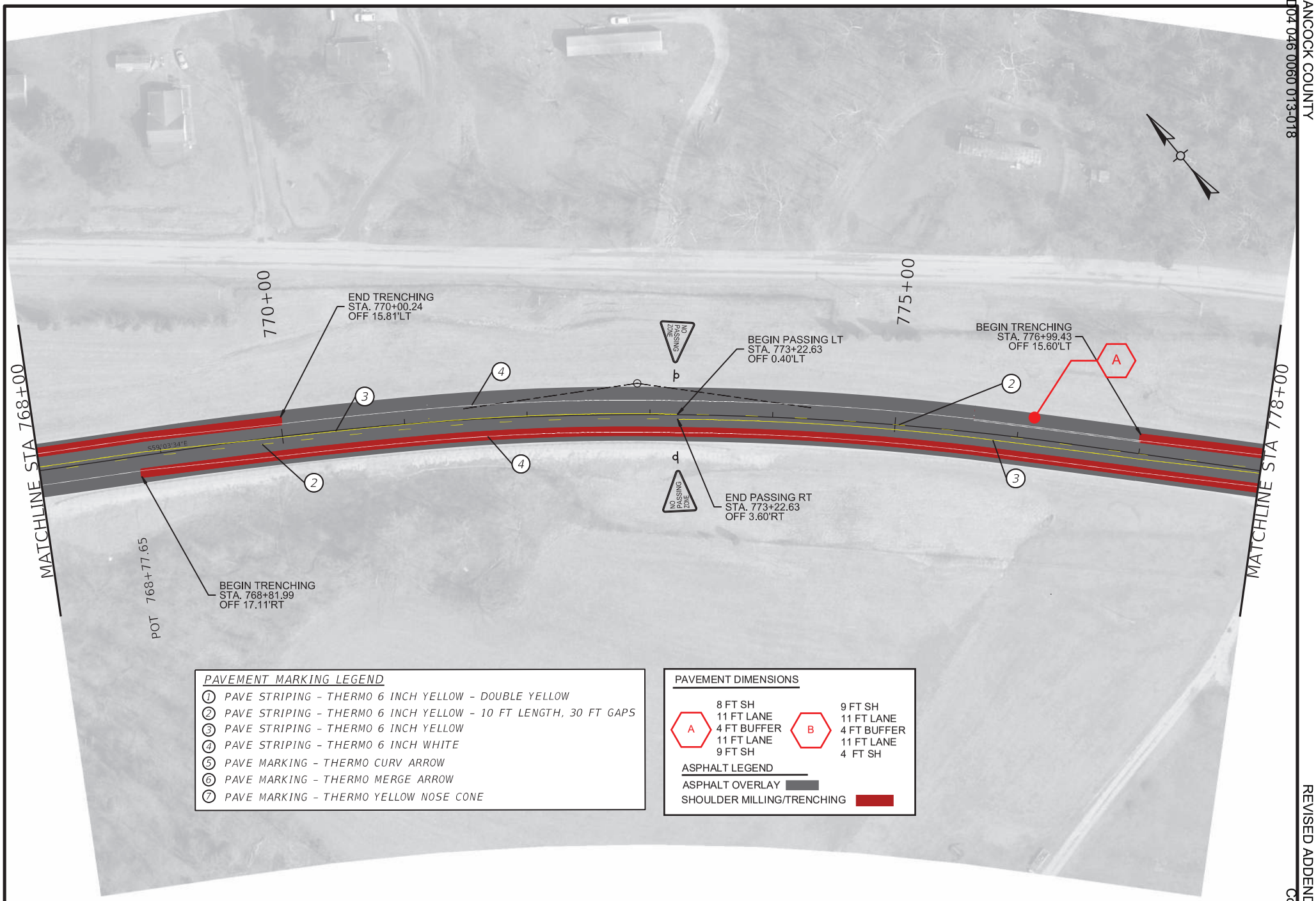

PAVEMENT MARKING LEGEND

1. PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW
2. PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS
3. PAVE STRIPING - THERMO 6 INCH YELLOW
4. PAVE STRIPING - THERMO 6 INCH WHITE
5. PAVE MARKING - THERMO CURV ARROW
6. PAVE MARKING - THERMO MERGE ARROW
7. PAVE MARKING - THERMO YELLOW NOSE CONE

PAVEMENT DIMENSIONS

A: 8 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 9 FT SH

B: 9 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 768+00.00 TO STA. 778+00.00

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R10

OpenRoads Designer v23.00.01.11
USER: KEKESSLER
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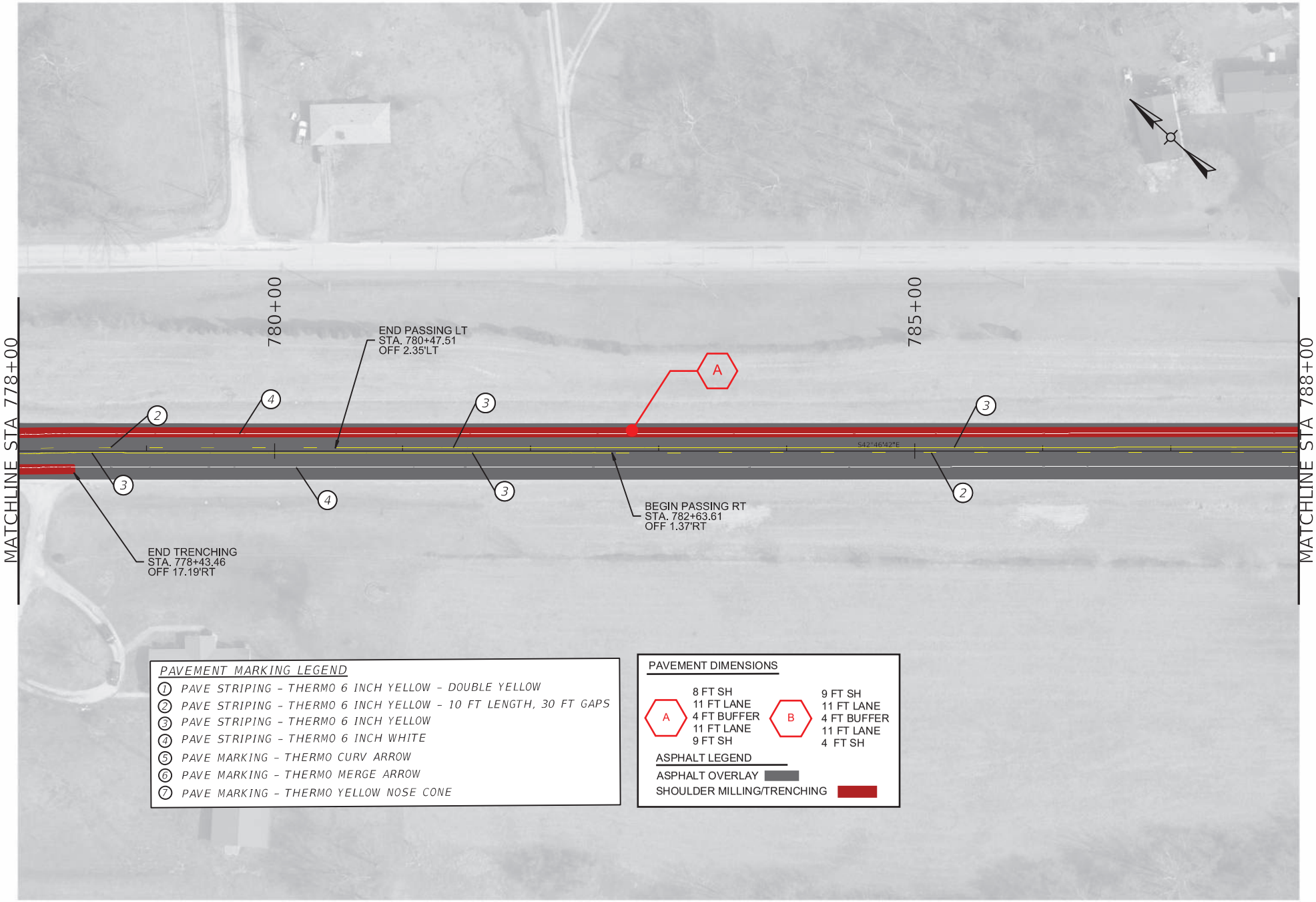

PAVEMENT MARKING LEGEND

1. *PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW*
2. *PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS*
3. *PAVE STRIPING - THERMO 6 INCH YELLOW*
4. *PAVE STRIPING - THERMO 6 INCH WHITE*
5. *PAVE MARKING - THERMO CURV ARROW*
6. *PAVE MARKING - THERMO MERGE ARROW*
7. *PAVE MARKING - THERMO YELLOW NOSE CONE*

PAVEMENT DIMENSIONS

A: 8 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 9 FT SH

B: 9 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 778+00.00 TO STA. 788+00.00

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R11

OpenRoads Designer v23.00.01.11
USER: KEKESSLER
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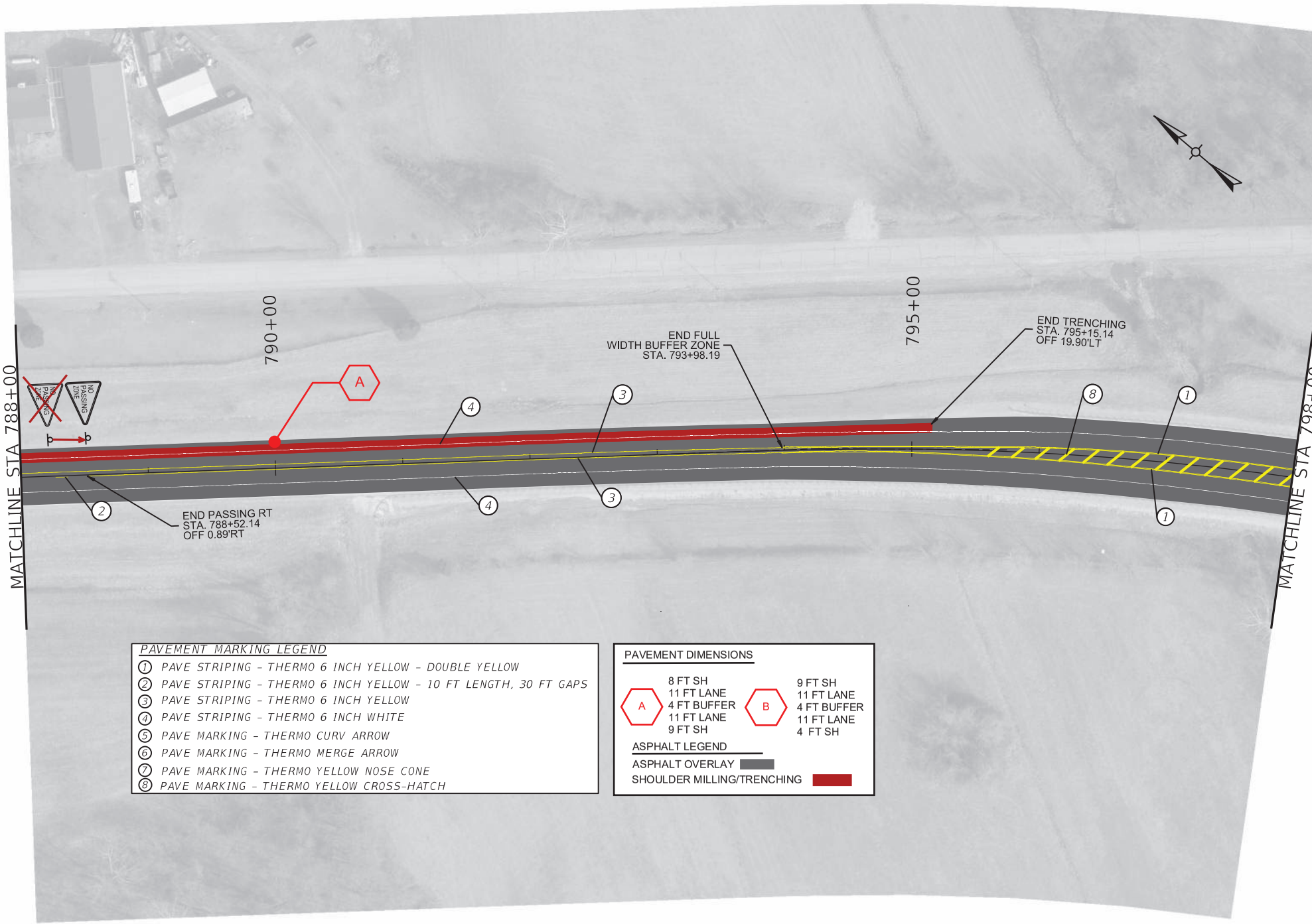

PAVEMENT MARKING LEGEND

1. *PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW*
2. *PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS*
3. *PAVE STRIPING - THERMO 6 INCH YELLOW*
4. *PAVE STRIPING - THERMO 6 INCH WHITE*
5. *PAVE MARKING - THERMO CURV ARROW*
6. *PAVE MARKING - THERMO MERGE ARROW*
7. *PAVE MARKING - THERMO YELLOW NOSE CONE*
8. *PAVE MARKING - THERMO YELLOW CROSS-HATCH*

PAVEMENT DIMENSIONS

A	8 FT SH 11 FT LANE 4 FT BUFFER 11 FT LANE 9 FT SH	
B		9 FT SH 11 FT LANE 4 FT BUFFER 11 FT LANE 4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 788+00.00 TO STA. 798+00.00

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R12

OpenRoads Designer v23.00.01.11
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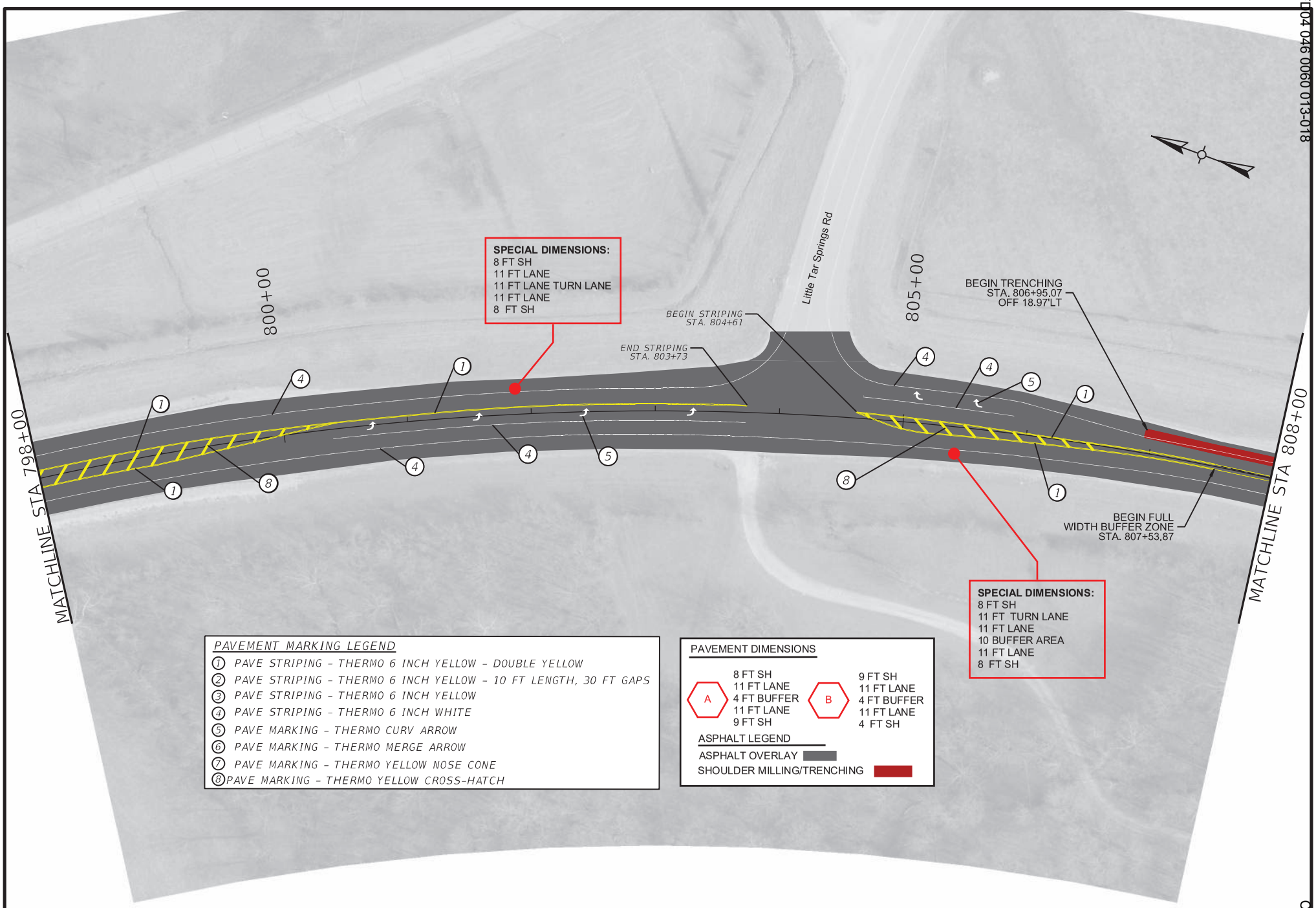

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 798+00.00 TO STA. 808+00.00

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R13

OpenRoads Designer v23.00.01.11
USER: KEKESSLER
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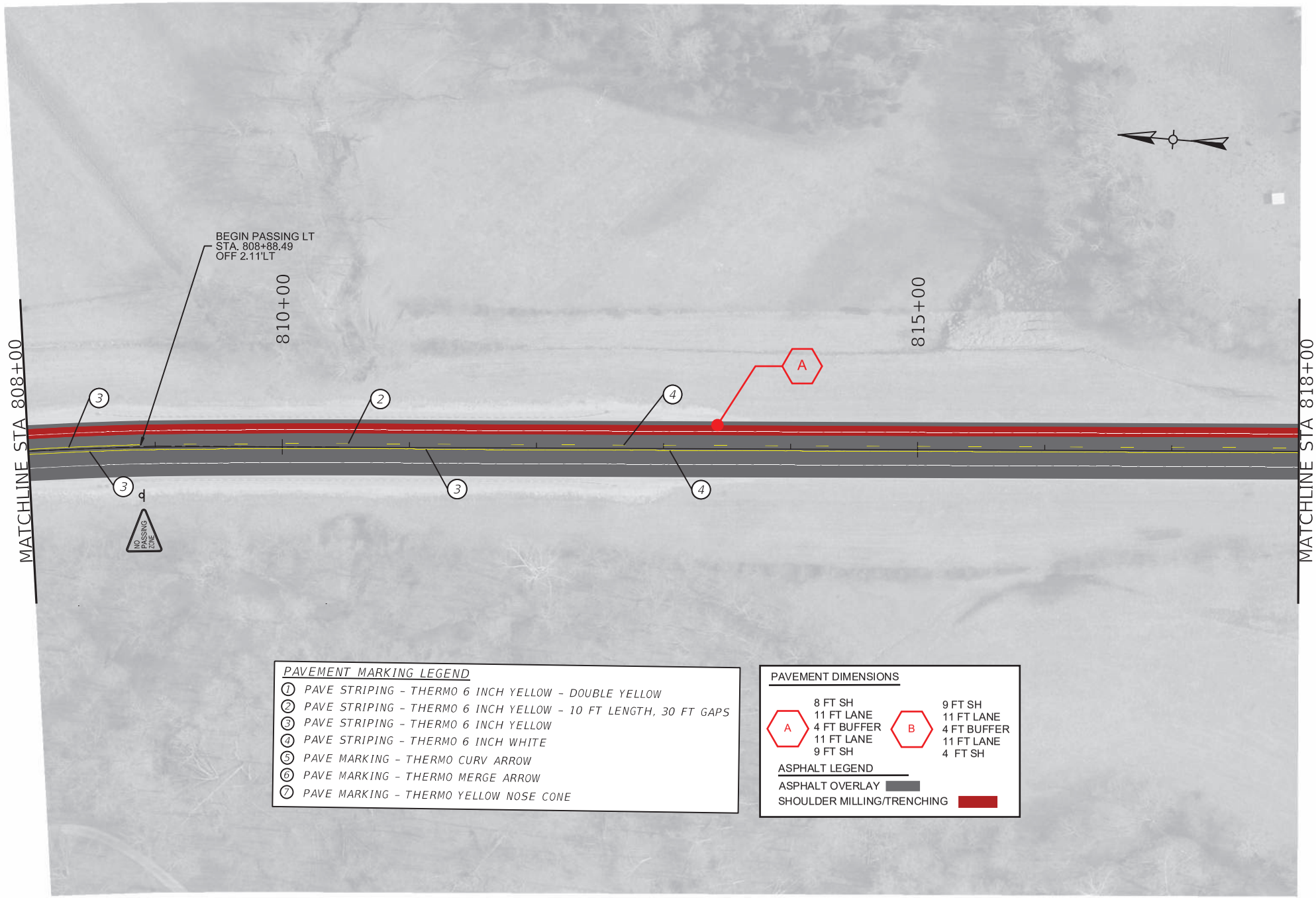

PAVEMENT MARKING LEGEND

1. PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW
2. PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS
3. PAVE STRIPING - THERMO 6 INCH YELLOW
4. PAVE STRIPING - THERMO 6 INCH WHITE
5. PAVE MARKING - THERMO CURV ARROW
6. PAVE MARKING - THERMO MERGE ARROW
7. PAVE MARKING - THERMO YELLOW NOSE CONE

PAVEMENT DIMENSIONS

	A	B
	8 FT SH	9 FT SH
	11 FT LANE	11 FT LANE
	4 FT BUFFER	4 FT BUFFER
	11 FT LANE	11 FT LANE
	9 FT SH	4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 808+00.00 TO STA. 818+00.00

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R14

OpenRoads Designer v23.00.01.11
USER: KEKESSLER
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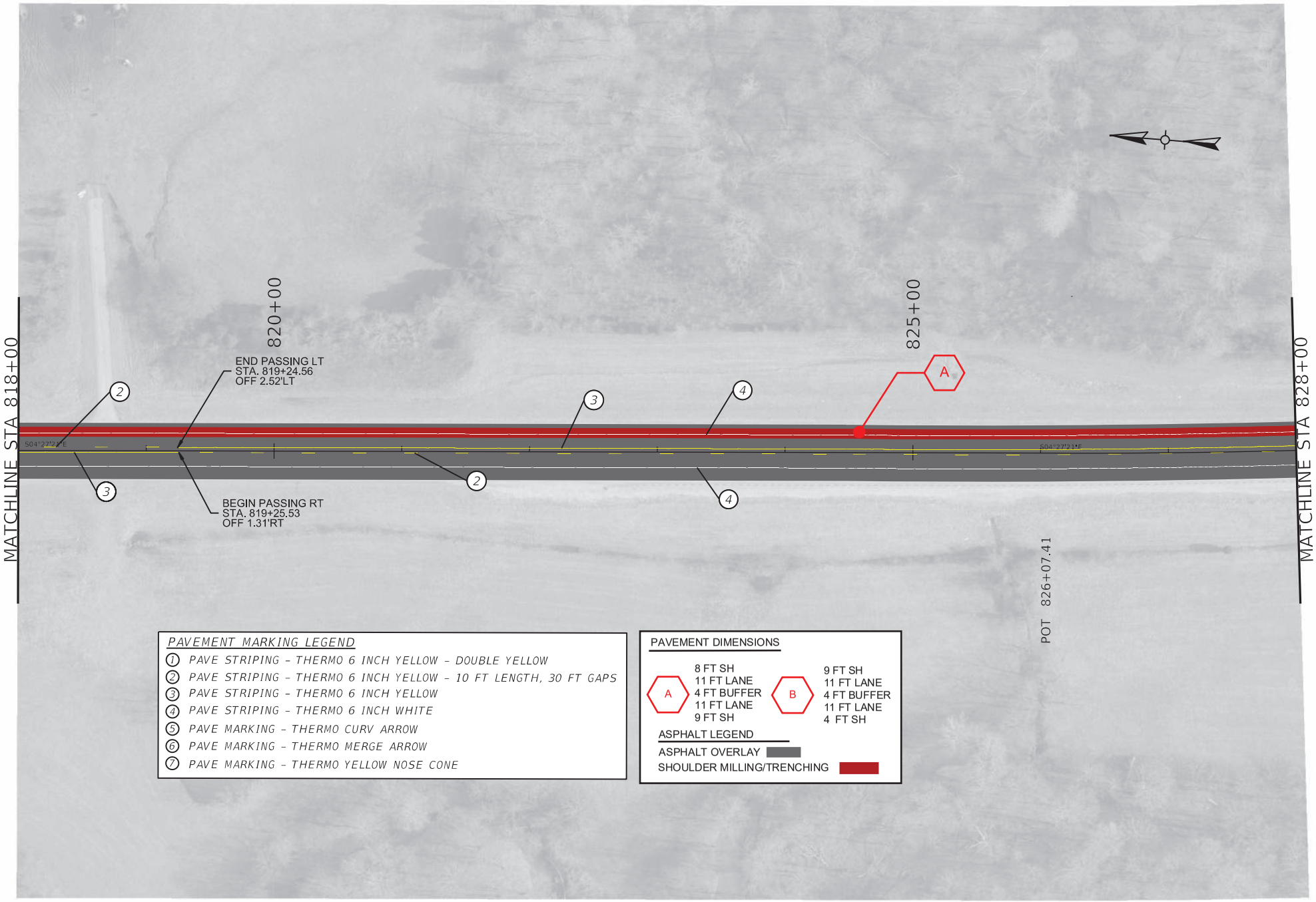

PAVEMENT MARKING LEGEND

1. *PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW*
2. *PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS*
3. *PAVE STRIPING - THERMO 6 INCH YELLOW*
4. *PAVE STRIPING - THERMO 6 INCH WHITE*
5. *PAVE MARKING - THERMO CURV ARROW*
6. *PAVE MARKING - THERMO MERGE ARROW*
7. *PAVE MARKING - THERMO YELLOW NOSE CONE*

PAVEMENT DIMENSIONS

A	8 FT SH 11 FT LANE 4 FT BUFFER 11 FT LANE 9 FT SH
B	9 FT SH 11 FT LANE 4 FT BUFFER 11 FT LANE 4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 818+00.00 TO STA. 828+00.00

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OR HANCOCK
SHEET NO. R15

OpenRoads Designer v23.00.01.11 USER: KEKESSLER
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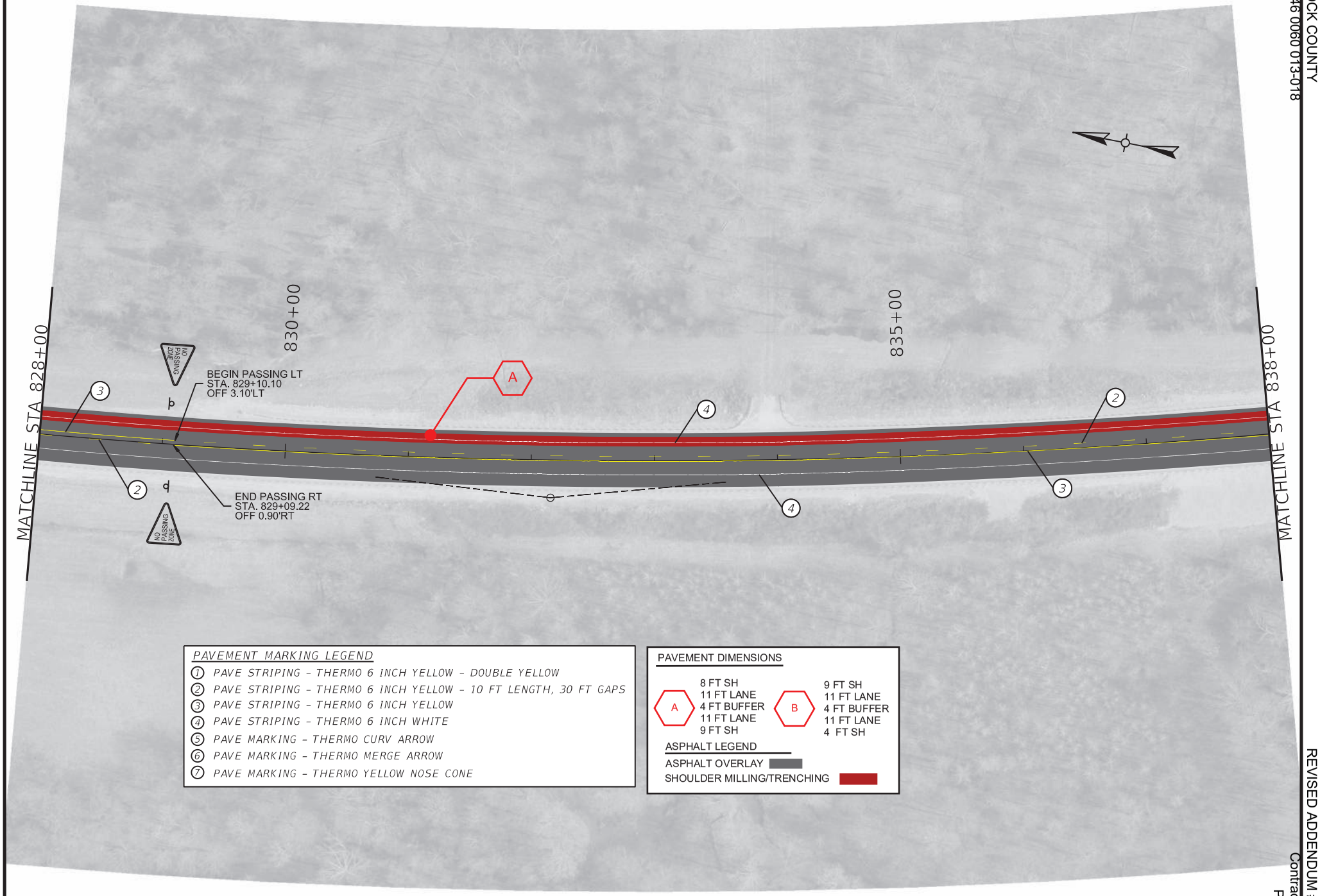

PAVEMENT MARKING LEGEND

1. *PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW*
2. *PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS*
3. *PAVE STRIPING - THERMO 6 INCH YELLOW*
4. *PAVE STRIPING - THERMO 6 INCH WHITE*
5. *PAVE MARKING - THERMO CURV ARROW*
6. *PAVE MARKING - THERMO MERGE ARROW*
7. *PAVE MARKING - THERMO YELLOW NOSE CONE*

PAVEMENT DIMENSIONS

A: 8 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 9 FT SH

B: 9 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 828+00.00 TO STA. 838+00.01

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R16

OpenRoads Designer v23.00.01.11 USER: KEKESSLER
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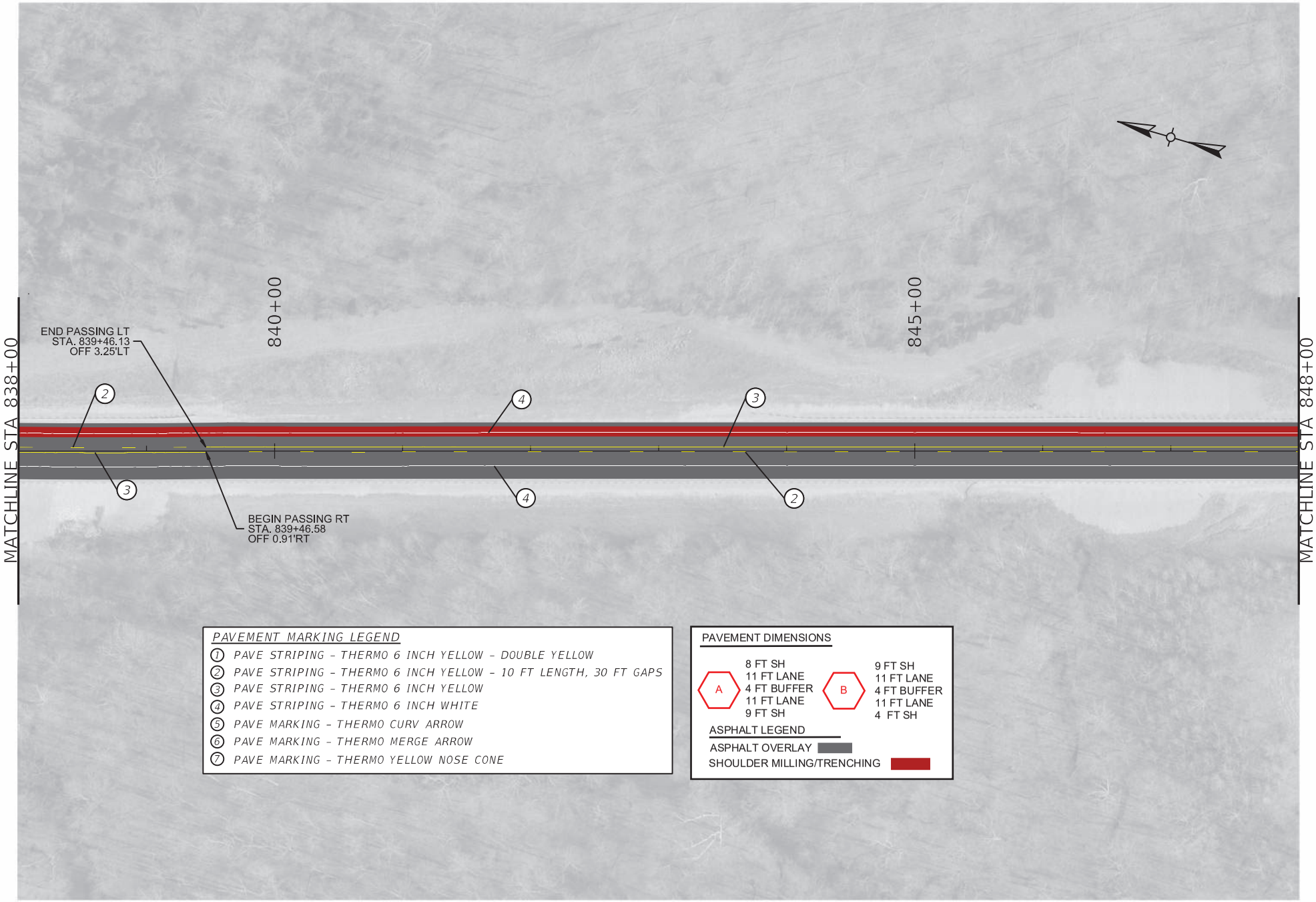

PAVEMENT MARKING LEGEND

1. *PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW*
2. *PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS*
3. *PAVE STRIPING - THERMO 6 INCH YELLOW*
4. *PAVE STRIPING - THERMO 6 INCH WHITE*
5. *PAVE MARKING - THERMO CURV ARROW*
6. *PAVE MARKING - THERMO MERGE ARROW*
7. *PAVE MARKING - THERMO YELLOW NOSE CONE*

PAVEMENT DIMENSIONS

A
8 FT SH
11 FT LANE
4 FT BUFFER
11 FT LANE
9 FT SH

B
9 FT SH
11 FT LANE
4 FT BUFFER
11 FT LANE
4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 838+00.01 TO STA. 848+00.01

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R17

OpenRoads Designer v23.00.01.11
USER: KEKESSLER
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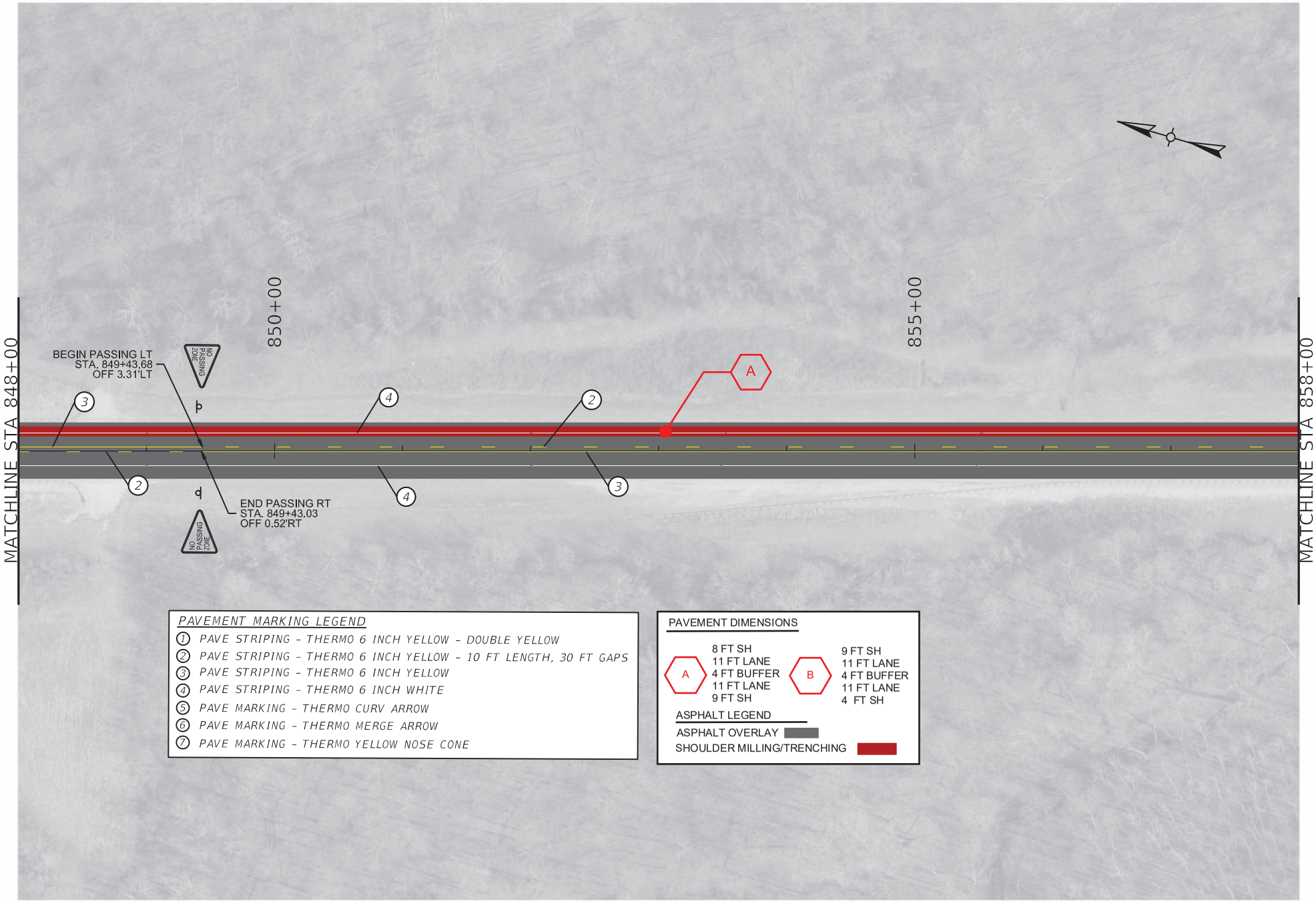

PAVEMENT MARKING LEGEND

1. *PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW*
2. *PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS*
3. *PAVE STRIPING - THERMO 6 INCH YELLOW*
4. *PAVE STRIPING - THERMO 6 INCH WHITE*
5. *PAVE MARKING - THERMO CURV ARROW*
6. *PAVE MARKING - THERMO MERGE ARROW*
7. *PAVE MARKING - THERMO YELLOW NOSE CONE*

PAVEMENT DIMENSIONS

A
8 FT SH
11 FT LANE
4 FT BUFFER
11 FT LANE
9 FT SH

B
9 FT SH
11 FT LANE
4 FT BUFFER
11 FT LANE
4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 848+00.01 TO STA. 858+00.01

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R18

OpenRoads Designer v23.00.01.11
USER: KEKESSLER
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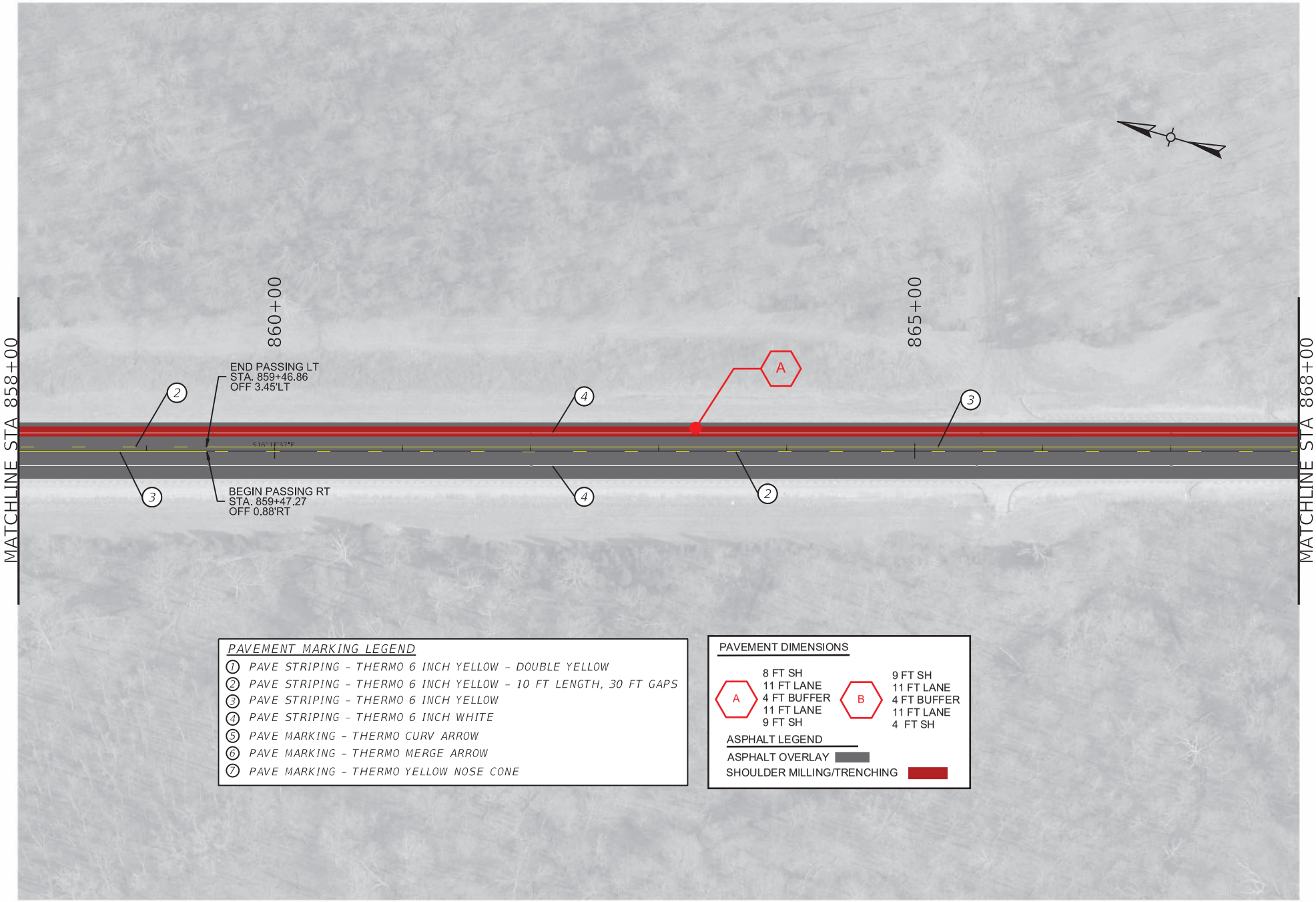

PAVEMENT MARKING LEGEND

1. *PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW*
2. *PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS*
3. *PAVE STRIPING - THERMO 6 INCH YELLOW*
4. *PAVE STRIPING - THERMO 6 INCH WHITE*
5. *PAVE MARKING - THERMO CURV ARROW*
6. *PAVE MARKING - THERMO MERGE ARROW*
7. *PAVE MARKING - THERMO YELLOW NOSE CONE*

PAVEMENT DIMENSIONS

A: 8 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 9 FT SH

B: 9 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 858+00.01 TO STA. 868+00.01

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R19

OpenRoads Designer v23.00.01.11
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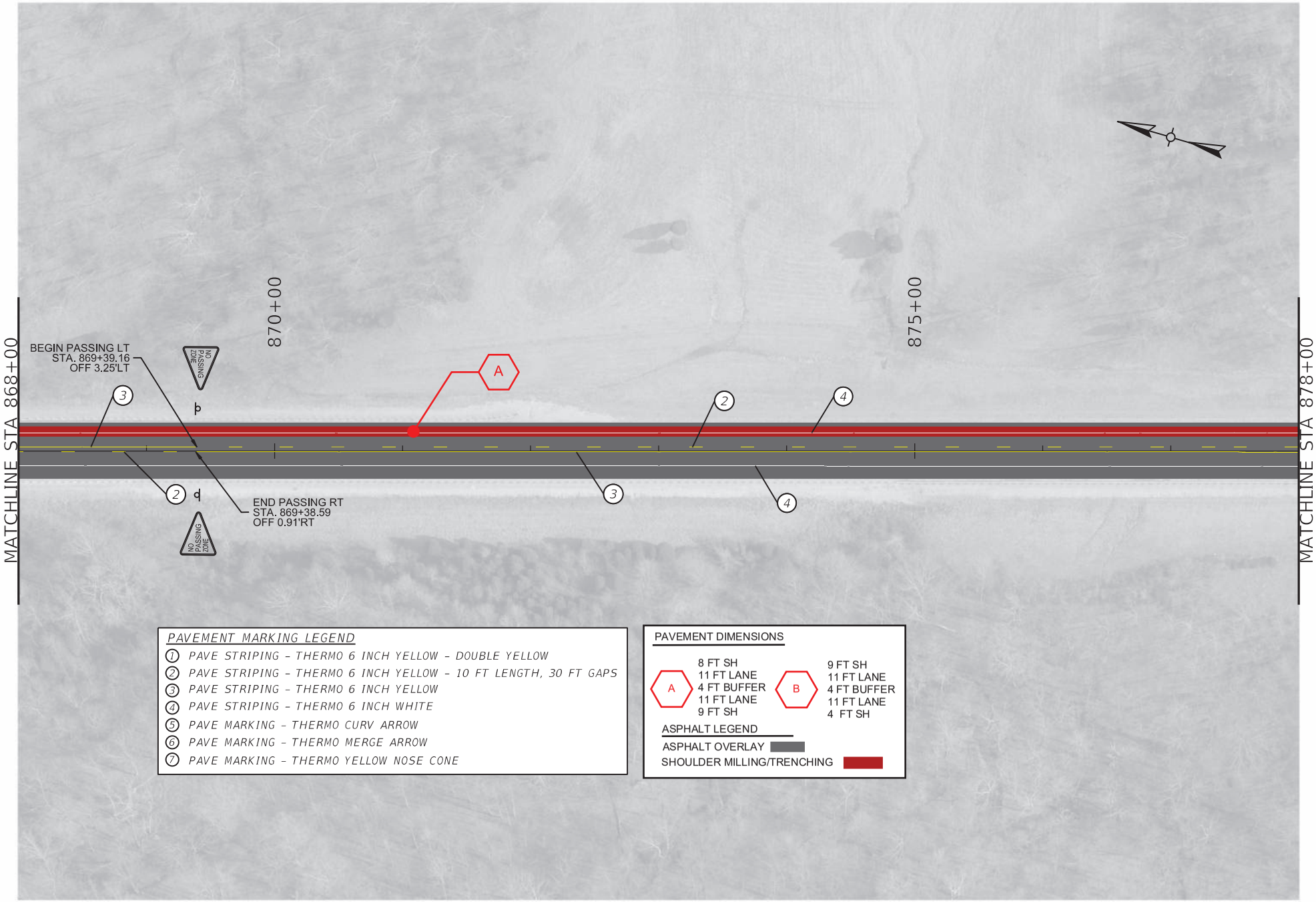

PAVEMENT MARKING LEGEND

1. *PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW*
2. *PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS*
3. *PAVE STRIPING - THERMO 6 INCH YELLOW*
4. *PAVE STRIPING - THERMO 6 INCH WHITE*
5. *PAVE MARKING - THERMO CURV ARROW*
6. *PAVE MARKING - THERMO MERGE ARROW*
7. *PAVE MARKING - THERMO YELLOW NOSE CONE*

PAVEMENT DIMENSIONS

A
8 FT SH
11 FT LANE
4 FT BUFFER
11 FT LANE
9 FT SH

B
9 FT SH
11 FT LANE
4 FT BUFFER
11 FT LANE
4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 868+00.01 TO STA. 878+00.01

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R20

OpenRoads Designer v23.00.01.11
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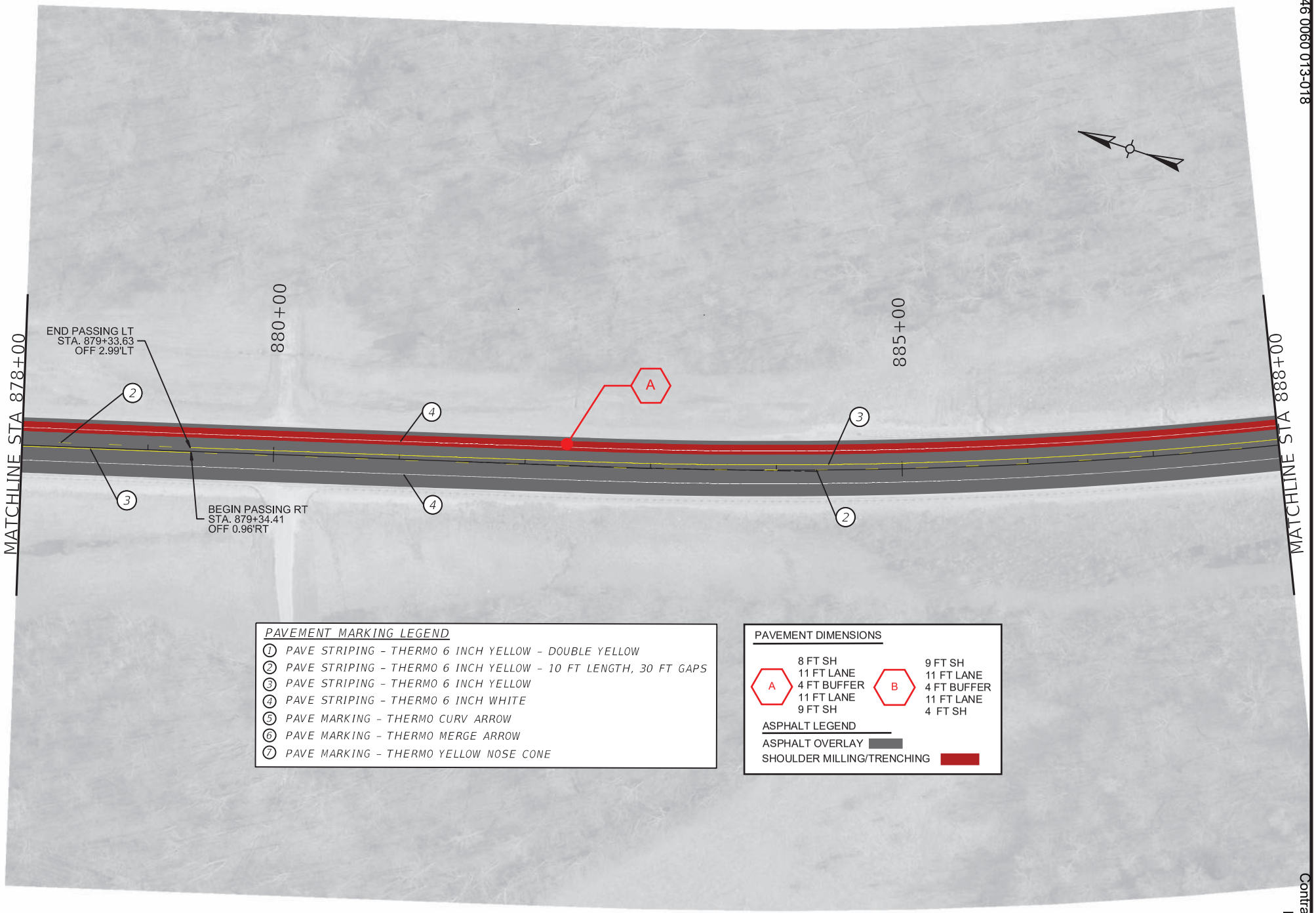

PAVEMENT MARKING LEGEND

1. PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW
2. PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS
3. PAVE STRIPING - THERMO 6 INCH YELLOW
4. PAVE STRIPING - THERMO 6 INCH WHITE
5. PAVE MARKING - THERMO CURV ARROW
6. PAVE MARKING - THERMO MERGE ARROW
7. PAVE MARKING - THERMO YELLOW NOSE CONE

PAVEMENT DIMENSIONS

A: 8 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 9 FT SH

B: 9 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 878+00.01 TO STA. 888+00.01

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -

COUNTY OF HANCOCK

SHEET NO. R21

OpenRoads Designer v23.00.01.11 USER: KEKESSLER
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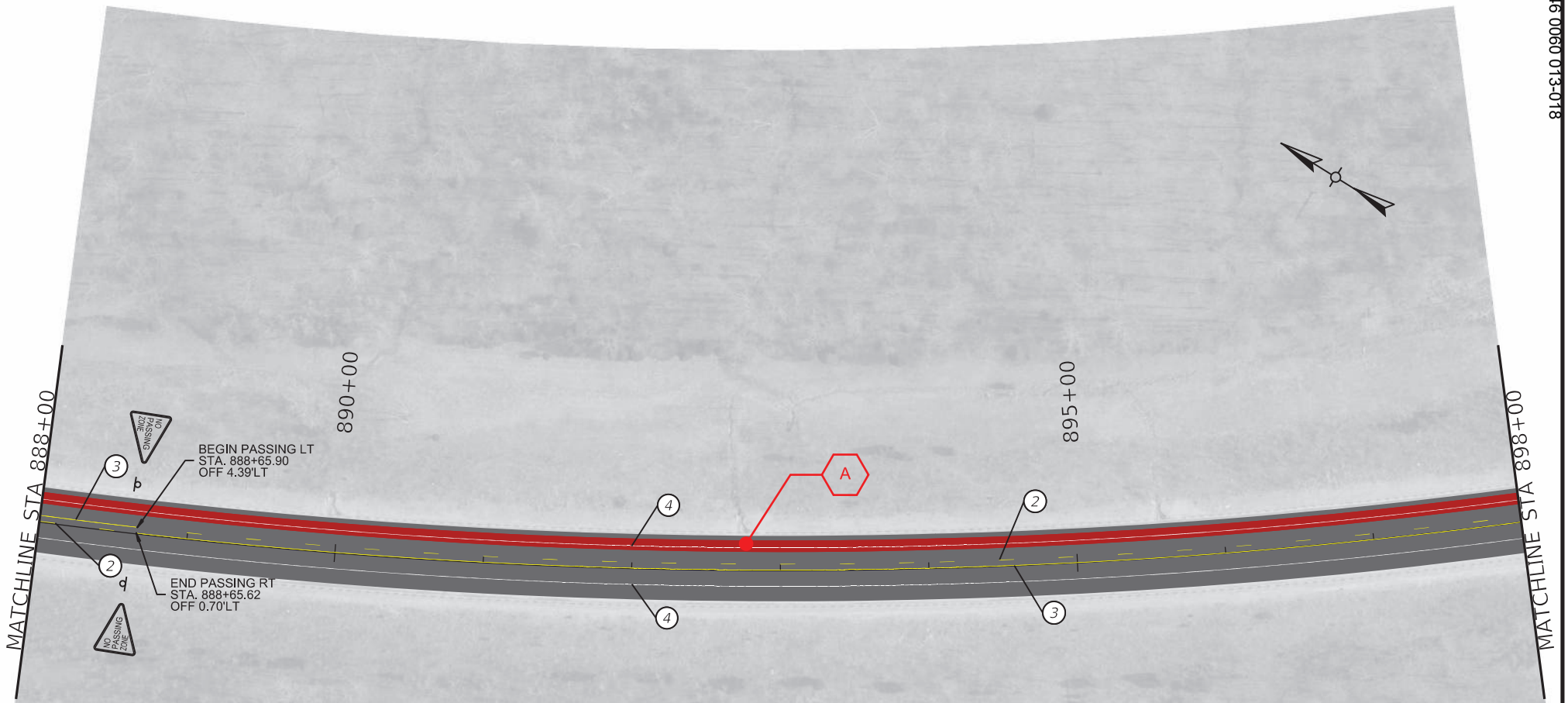

PAVEMENT MARKING LEGEND

1. *PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW*
2. *PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS*
3. *PAVE STRIPING - THERMO 6 INCH YELLOW*
4. *PAVE STRIPING - THERMO 6 INCH WHITE*
5. *PAVE MARKING - THERMO CURV ARROW*
6. *PAVE MARKING - THERMO MERGE ARROW*
7. *PAVE MARKING - THERMO YELLOW NOSE CONE*

PAVEMENT DIMENSIONS

A
8 FT SH
11 FT LANE
4 FT BUFFER
11 FT LANE
9 FT SH

B
9 FT SH
11 FT LANE
4 FT BUFFER
11 FT LANE
4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 888+00.01 TO STA. 898+00.01

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R22

OpenRoads Designer v23.00.01.11
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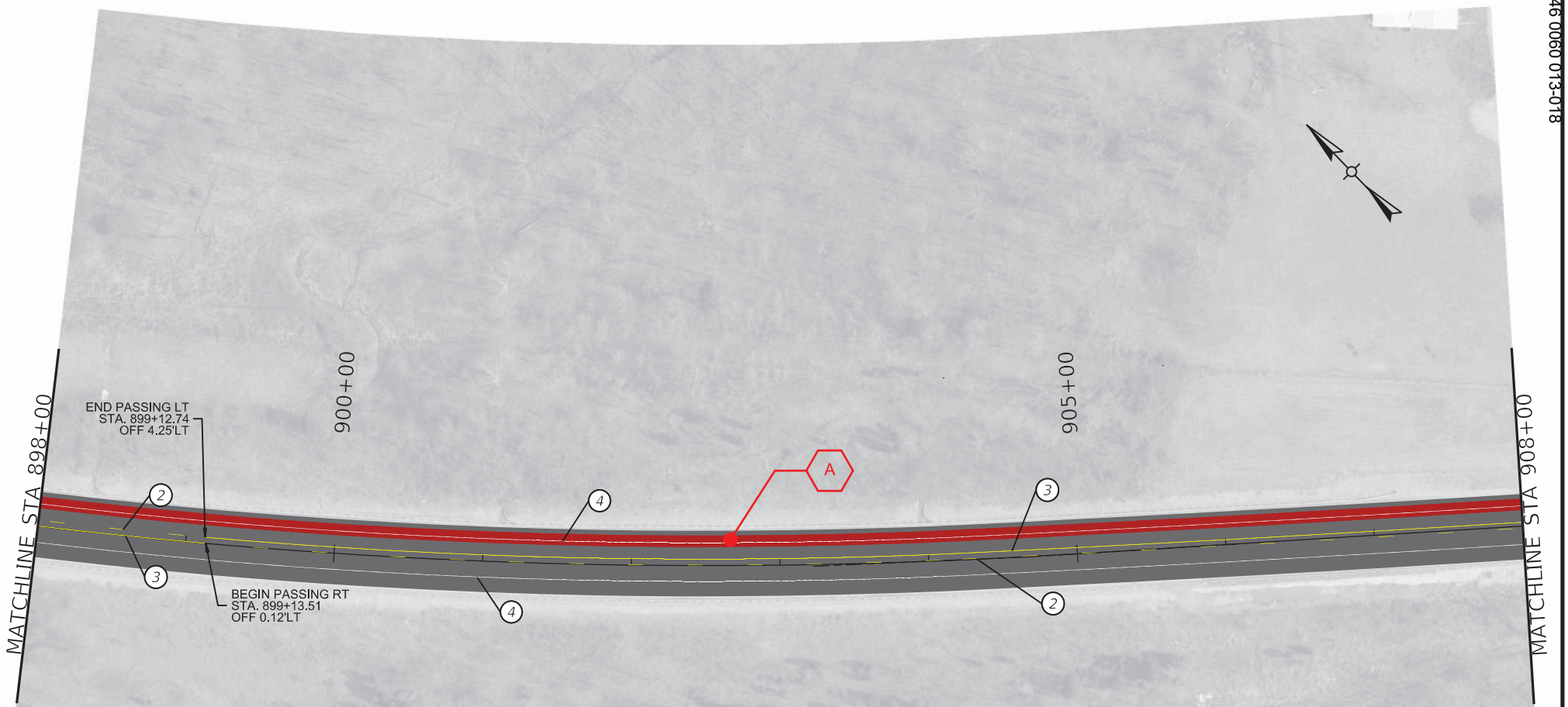
HANCOCK COUNTY
FD04 046 0060 013-018



PAVEMENT MARKING LEGEND

1. PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW
2. PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS
3. PAVE STRIPING - THERMO 6 INCH YELLOW
4. PAVE STRIPING - THERMO 6 INCH WHITE
5. PAVE MARKING - THERMO CURV ARROW
6. PAVE MARKING - THERMO MERGE ARROW
7. PAVE MARKING - THERMO YELLOW NOSE CONE

PAVEMENT DIMENSIONS

A: 8 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 9 FT SH

B: 9 FT SH, 11 FT LANE, 4 FT BUFFER, 11 FT LANE, 4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 898+00.01 TO STA. 908+00.01

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R23

OpenRoads Designer v23.00.01.11
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REVISED ADDENDUM #1 8/15/2025
Contract ID: 254 08
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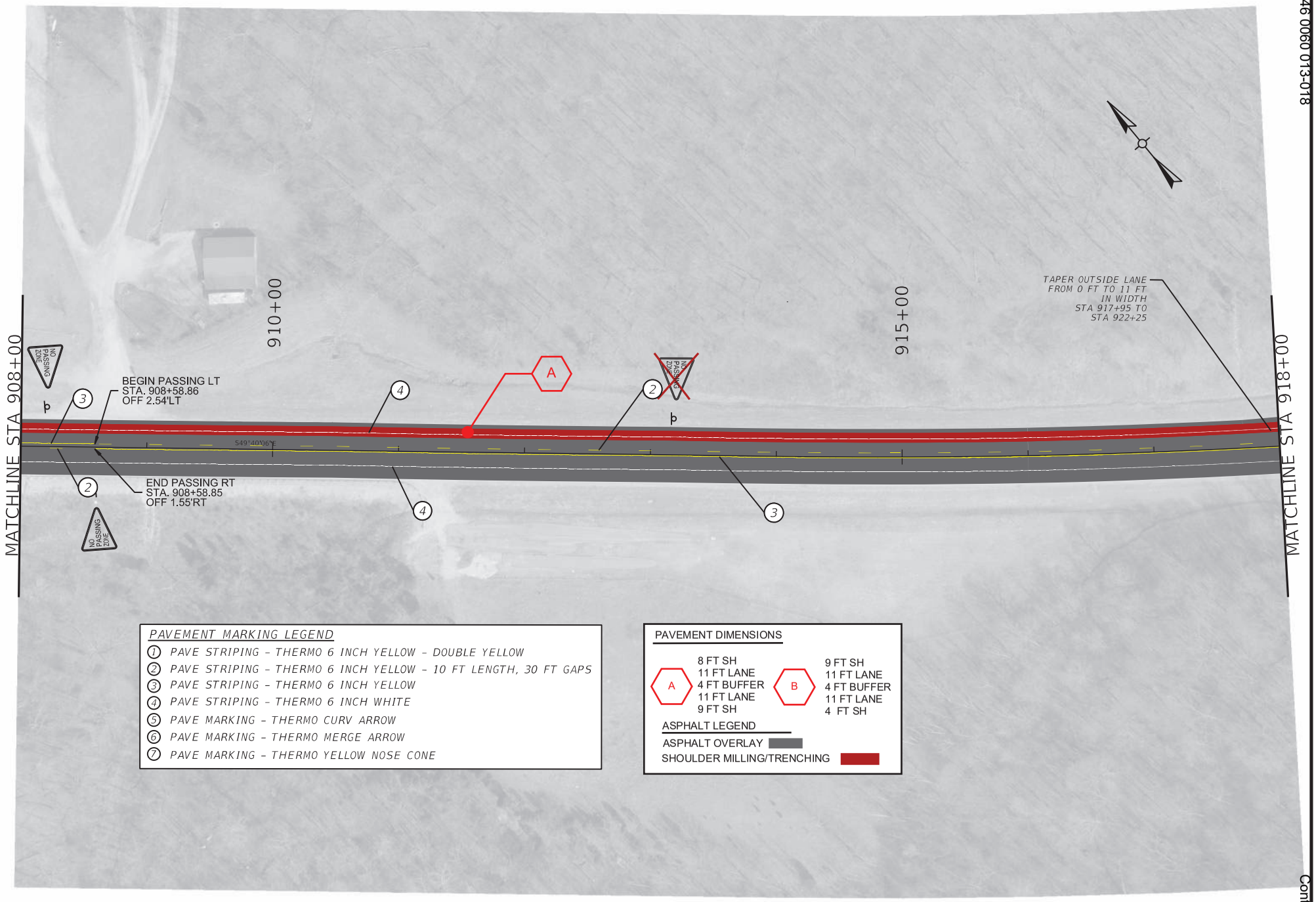

PAVEMENT MARKING LEGEND

1. *PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW*
2. *PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS*
3. *PAVE STRIPING - THERMO 6 INCH YELLOW*
4. *PAVE STRIPING - THERMO 6 INCH WHITE*
5. *PAVE MARKING - THERMO CURV ARROW*
6. *PAVE MARKING - THERMO MERGE ARROW*
7. *PAVE MARKING - THERMO YELLOW NOSE CONE*

PAVEMENT DIMENSIONS

	A	B
	8 FT SH	9 FT SH
	11 FT LANE	11 FT LANE
	4 FT BUFFER	4 FT BUFFER
	11 FT LANE	11 FT LANE
	9 FT SH	4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 908+00.01 TO STA. 918+00.01

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R24

OpenRoads Designer v23.00.01.11 USER: KEKESSLER
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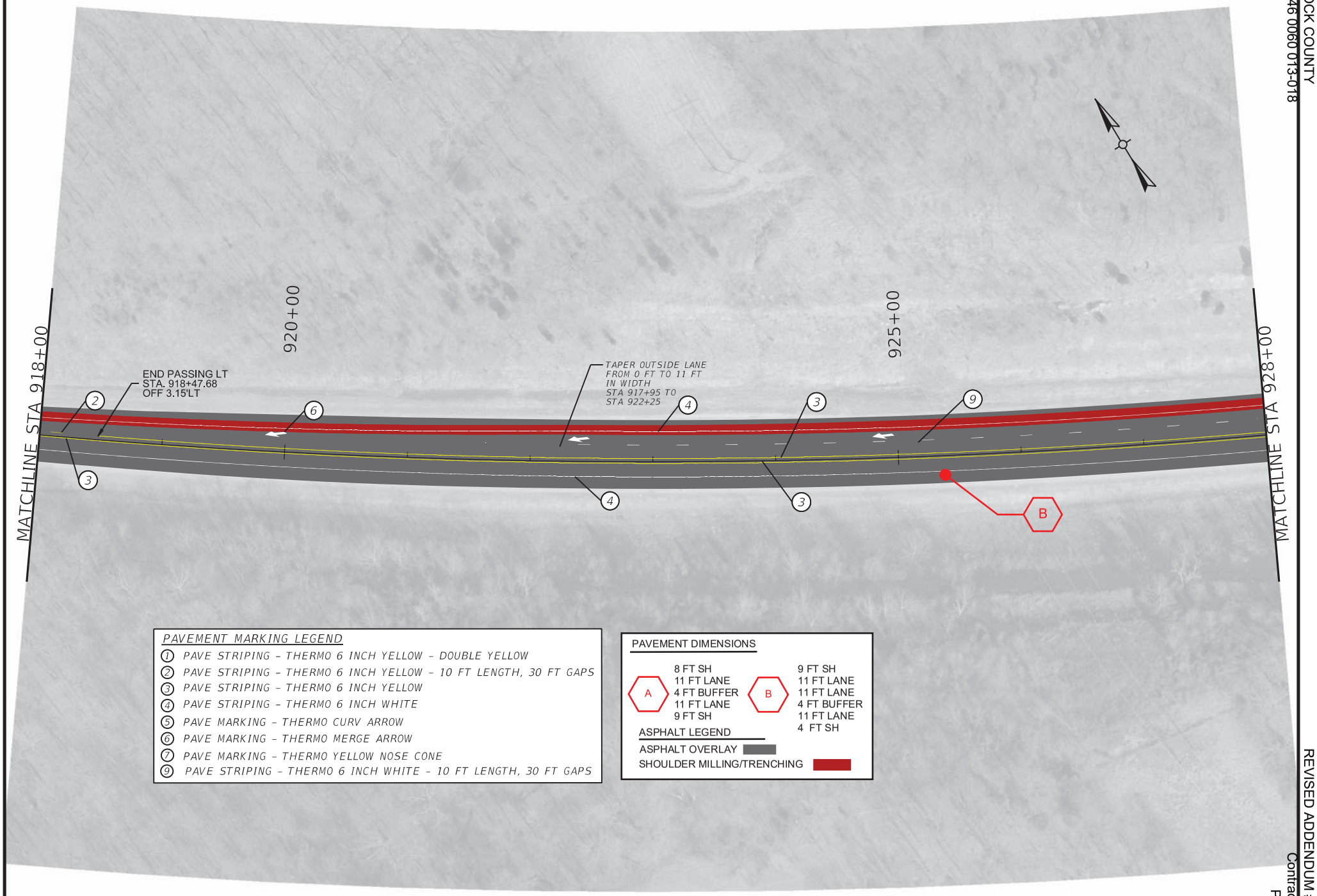

PAVEMENT MARKING LEGEND

1. *PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW*
2. *PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS*
3. *PAVE STRIPING - THERMO 6 INCH YELLOW*
4. *PAVE STRIPING - THERMO 6 INCH WHITE*
5. *PAVE MARKING - THERMO CURV ARROW*
6. *PAVE MARKING - THERMO MERGE ARROW*
7. *PAVE MARKING - THERMO YELLOW NOSE CONE*
9. *PAVE STRIPING - THERMO 6 INCH WHITE - 10 FT LENGTH, 30 FT GAPS*

PAVEMENT DIMENSIONS

	A	B
	8 FT SH	9 FT SH
	11 FT LANE	11 FT LANE
	4 FT BUFFER	11 FT LANE
	11 FT LANE	4 FT BUFFER
	9 FT SH	11 FT LANE
		4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 918+00.01 TO STA. 928+00.01

0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R25

OpenRoads Designer v23.00.01.11
USER: KEKESSLER
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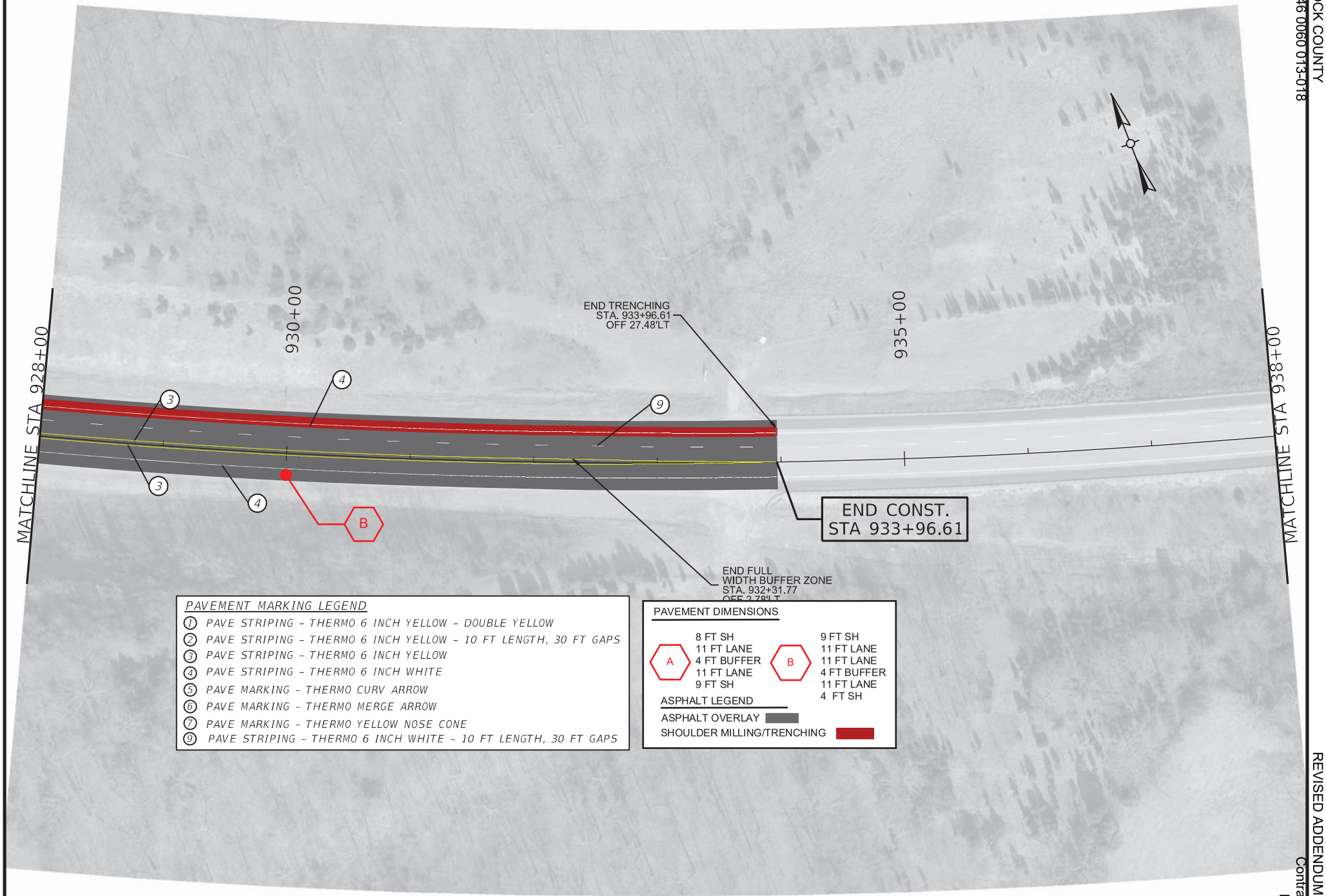
HANCOCK COUNTY
FD04 046 0060 013-018

REVISED ADDENDUM #1 8/15/2025
Contract ID: 254108
Page 14 of 95



PAVEMENT MARKING LEGEND

1. PAVE STRIPING - THERMO 6 INCH YELLOW - DOUBLE YELLOW
2. PAVE STRIPING - THERMO 6 INCH YELLOW - 10 FT LENGTH, 30 FT GAPS
3. PAVE STRIPING - THERMO 6 INCH YELLOW
4. PAVE STRIPING - THERMO 6 INCH WHITE
5. PAVE MARKING - THERMO CURV ARROW
6. PAVE MARKING - THERMO MERGE ARROW
7. PAVE MARKING - THERMO YELLOW NOSE CONE
9. PAVE STRIPING - THERMO 6 INCH WHITE - 10 FT LENGTH, 30 FT GAPS

PAVEMENT DIMENSIONS

A
8 FT SH
11 FT LANE
4 FT BUFFER
11 FT LANE
9 FT SH

B
9 FT SH
11 FT LANE
11 FT LANE
4 FT BUFFER
11 FT LANE
4 FT SH

ASPHALT LEGEND

ASPHALT OVERLAY

SHOULDER MILLING/TRENCHING

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: US 60
CENTERLINE BUFFER PROJECT
STA. 928+00.01 TO STA. 938+00.01

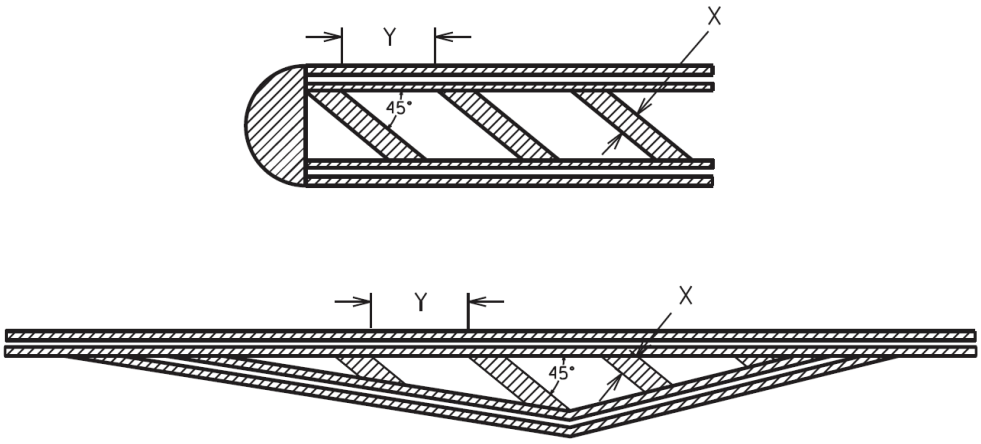
0' 50' 100' 200'
HORIZONTAL SCALE: 1"=100'

ITEM NO. -
COUNTY OF HANCOCK
SHEET NO. R26

OpenRoads Designer v23.00.01.11
USER: KEKESSLER
FILE NAME: C:\PWWORKING\EAST01\D4493270\HANCOCK_US60_SHEETS.DGN

CROSS-HATCH PAVEMENT MARKINGS DETAIL

TYPICAL CROSS-HATCH MARKINGS



The cross-hatch pavement marking width (X) and spacing (Y) will usually be specified in the plans. The width to spacing values usually have a ratio of 1:10. If the plans do not specify the width (X) and spacing (Y) the Engineer will provide the contractor with the X and Y values for each cross-hatch installation. If necessary, the Engineer may obtain guidance from the District Traffic Engineer and/or the Division of Traffic Operations.

NOTE: Adjust the width and spacing of the cross-hatch pavement markings as necessary so that a minimum of three (3) cross-hatch markings are placed within the area being marked. The 1:10 ratio between width and spacing values should be maintained as much as possible.

Refer to Section 717 of the Standard Specifications for Road and Bridge Construction, current edition, for more information concerning Material and Construction specifications.

The Department will measure the finished in-place area of Cross-Hatch Pavement Markings in Square Feet. The Department will NOT measure overlaps or the void space between cross-hatching. See Section 717.04 for additional measurement information.

When listed in the bid items, the Department will make payment for the completed and accepted quantities of Cross-Hatch Pavement Markings under the following:

Code	Pay Item	Pay Unit
06569	Pave Marking-Thermo Cross-Hatch	Square Foot
23253ES717	Pave Mark TY 1 Tape Cross Hatch	Square Foot

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.

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 B

Be advised that the Department will control and accept compaction of asphalt mixtures furnished on this project under OPTION B in accordance with Sections 402 and 403.

MATERIAL TRANSFER VEHICLE (MTV)

Provide and use a MTV in accordance with Sections 403.02.10 and 403.03.05.

SPECIAL NOTE FOR EXPERIMENTAL KYCT AND FIELD RUT TESTING
June 2025 Update

1.0 General

1.1 Description. The KYCT (Kentucky Method for Cracking Test) and the IDEAL-RT/IDT-HT test results will help determine if the mixture is susceptible to cracking and rutting. During the experimental phase, data will be gathered and analyzed by the Department to determine the durability and stability of the bituminous mixes. Additionally, the data will help the Department to create future performance-based specifications which will include the KYCT and field rutting test methods.

2.0 Equipment

2.1 KYCT Testing Equipment. The Department will require a Marshall Test Press with digital recording capabilities. Other CT testing equipment may be used for testing with prior approval by the Department.

2.2 Water Baths. One or more water baths will be required that can maintain a temperature of 77^{o} +/- 1.8^{o} F with a digital thermometer showing the water bath temperature. Also, one water bath shall have the ability to suspend gyratory specimen fully submerged in water in accordance with AASHTO T-166, current edition.

2.3 Field Rutting Tests. I f t he contractor elects to perform the IDEAL-RT test, in conformance with ASTM D8360-22, the acquisition of the “Option A” or “Option B” test fixture is required. If the IDT-HT is desired, the test press utilized for the KYTC is sufficient. The Department shall approve all test configurations at their discretion.

2.4 Gyratory Molds. Gyratory molds will be required to assist in the production of gyratory specimens in accordance with AASHTO T-312, current edition.

2.5 Ovens. Adequate (minimum of two ovens) will be required to accommodate the additional molds and asphalt mixture necessary to perform the acceptance testing as outlined in Section 402 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

2.6 Department Equipment. The Department will provide gyratory molds, PINE 850 Test Press with digital recordation, and CT testing equipment to assist during this experimental phase so data can be gathered.

3.0 Testing Requirements

3.1 Acceptance Testing. Perform all acceptance testing and aggregate gradation as according with Section 402 and Section 403 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

3.2 KYCT Testing. Perform crack resistance analysis (KYCT) in accordance with the current Kentucky Method for KYCT Index Testing during the plant production of all surface mixtures. Conform to KYTC Specifications for Mix Design approvals. All production testing is currently informational.

3.2.1 KYCT Frequency. Obtain an adequate sample of hot mix asphalt to ensure the acceptance testing, gradation, and KYCT gyratory samples can be fabricated and is representative of the bituminous mixture. Acceptance specimens shall be fabricated first, then after the specified amount of oven conditioning, fabricate the KYCT samples with the gyratory compactor in accordance with Section 2.4 of this Special Note. Analysis of the KYCT specimens will be required one per sublot produced from the same asphalt material and at the same time as the acceptance specimen is sampled and tested.

3.2.2 Number of Specimens and Conditioning. Fabricate specimens in accordance with the Kentucky Method for KYCT Index Testing. Contrary to the method, for field specimens, fabricate three replicates for cracking resistance analyses and three replicates for rutting resistance analyses. The specimens shall be compacted at the temperature in accordance with KM 64-411.

Contrary to the Kentucky Method, plant produced bituminous material shall be short-term conditioned immediately after sampling for two hours uncovered in the oven at compaction temperature in accordance with KM 64-411.

While the fabricated specimens are allowed to cool in air (fan is permissible) for 30 minutes +/- 5 minutes, find the bulk specific gravity of each specimen according to AASHTO T166. Next, condition the replicates in a 77 °F water bath for 30 minutes +/- 5 minutes. To ensure confidence and reliability of the test results provided by KYCT testing and Field Rut testing, reheating of the asphalt mixture is prohibited.

3.2.3 Long Term Aging CT's. For long-term aging and cracking resistance considerations in mix design, mix and condition 3 specimens uncovered for 20 hours at compaction temperature in accordance with KM 64-411. Perform KYCT testing in accordance with KM 64-450 and record the results on the Long-Term KYCT tab of the latest version of the MixPack.

3.2.4 Record Times. For each sublot, record the time required between drying aggregates in the plant to KYCT specimen fabrication. The production time may vary due to the time that the bituminous material is held in the silo. Record the preconditioning time when the time exceeds the one-hour specimen cool down time as required in accordance with The Kentucky Method for KYCT Index Testing. The preconditioning time may exceed an hour if the technician is unable to complete the test on the same day or within the specified times as outlined in The Kentucky Method for KYCT Index Testing. The production time and the preconditioning time shall be recorded on the AMAW.

3.2.5 File Name. As according to section 7.12 of The Kentucky Method for KYCT Index Testing, save the filename with the following format: "CID_Approved Mix Number_Lot Number_Sublot Number_ Date"

3.3 Field Rut Testing. Perform the rut resistance analysis (IDEAL-RT or IDT-HT) in accordance with ASTM D8360-22 or ALDOT458, respectively. Contrary to ASTM D8360 & ALDOT458, precondition the test specimens in a water bath or forced draft oven at 50 °C +/- 1 °C for 60 +/- 5 min before completing the test.

3.3.1 Field Rut Testing Frequency. Perform one test per lot of mixture produced. The plant produced bituminous material sampled for the field rut test does not have to be obtained at the same time as the acceptance and KYCT sample. If the field rut test sample is not obtained at the same time as the KYCT sample, determine the Maximum Specific Gravity of the KYCT sample in accordance with AASHTO T-209 coinciding with the test specimens.

3.3.2 Number of Specimens and Conditioning. Fabricate in accordance with the Kentucky Method for KYCT Index Testing. Contrary to the method, for field specimens, fabricate three

replicates for rutting resistance analyses. The specimens shall be compacted at the temperature in accordance with KM 64-411. Contrary to the Kentucky Method, plant produced bituminous material shall be short-term conditioned immediately after sampling for two hours uncovered in the oven at compaction temperature in accordance with KM 64-411.

3.3.3 Record Times. Record the production time as according to section 3.2.3 in this special note. Also record the time that the specimens were fabricated. All times shall be recorded on the AMAW.

3.3.4 File Name. Record all field rut data in the latest version of the AMAW.

4.0 Data

Submit the AMAW and all test data that was obtained for acceptance, gradation, KYCT, and field rut testing within five working days once all testing has been completed for a lot to Central Materials Lab and the District Materials Engineer. Also, any data and or comments that the asphalt contractor or district personnel deem informational during this experimental phase, shall also be submitted to the Central Materials Lab and the District Materials Engineer. Any questions or comments regarding any item in this Special Note can be directed to the Central Office, Division of Materials, Asphalt Branch.

5.0 Payment

Any additional labor and testing equipment that is required to fabricate and test the KYCT and field rut specimens shall be considered incidental to the asphalt surface line item. The Department will perform the testing for the KYCT and field rut specimens if a producer does not possess the proper equipment.

June 12th, 2025

SPECIAL NOTE FOR RECYCLED ASPHALT PAVEMENT (RAP) STOCKPILE MANAGEMENT

I. GENERAL

The use of reclaimed asphalt pavement (RAP) from Department projects or other approved sources in hot mix asphalt (HMA) or warm mix asphalt (WMA) shall be subject to stockpile management and handling of material as described in this section.

The Department approves RAP on a stockpile basis, following the process set forth in this method. The contractor's responsibilities in the process are as follows:

- To obtain the Department's approval of all RAP prior to its use on a Department project and to deliver test data and samples as required
- To monitor and preserve the quality and uniformity of the approved material during storage and handling, adding no unapproved material to the existing stockpile
- To comply with the Department's requirements regarding replenishment of approved stockpiles

The Department will approve RAP based on its composition and variability in gradation and asphalt content, and on visual inspections of the stockpile, which the Department may conduct at its discretion. The Department may withdraw approval of a stockpile if the requirements of this specification are not followed in good faith.

The Maximum Percentage Allowed in a mix design will be based on these criteria and on the category of RAP source, as defined in this document.

II. APPROVAL PROCESS

Qualified asphalt producers (listed in List of Approved Materials-Asphalt Mixing Plants) may submit requests for RAP stockpile approval to the Asphalt Branch, Division of Materials, in the Annual Certification for Previously Approved Asphalt Mixing Plants and Related Equipment. The requester shall provide test results as prescribed in Part IID. The Division of Materials may, at their discretion, collect samples or inspect a RAP stockpile consistent with Section IIE.

Upon completion of the review of testing results and, if applicable, visual inspection, the Division of Materials, Asphalt Branch will approve or disapprove the material by letter and will assign a Stockpile Identification Number for each approved RAP stockpile. Note: The contractor's average gradation and asphalt content, as listed in the approval letter, shall be the gradation used in subsequent mix designs. The approval letter will state the applicable limits on the use of the material in mix designs and will summarize the Department's findings, listing the average gradation and asphalt content from the contractor's tests and the corresponding values found by the Department. Where the Maximum Percentage Allowed is low due to variability, the contractor may elect to improve the uniformity of the material by further processing and may again sample, test, and request approval for the material.

No material shall be added to a stockpile after it has been approved, except as provided in Parts V, VI, and VII below.

IIA. RAP Quality Management Plan

For a contractor to receive approval to use RAP on any department project, a RAP Quality Management Plan must first be approved by the department. The RAP Quality Management Plan shall be submitted to the

Division of Materials annually for approval as part of the Contractor's Quality Control Plan/Checklist. The Quality Management Plan is required to demonstrate how the Contractor will provide consistency and quality of material utilized in all asphalt mixes produced for use on Department projects. The Quality Management Plan shall include:

- Unprocessed RAP Stockpiles
  - Designation of stockpile(s) as single or multiple source
  - Designation of stockpile(s) as classified or unclassified
  - Designation of stockpile(s) as captive or continuously replenishing
  - Plan for how stockpile(s) is built (layers, slope, etc.)
  - Plan to minimize stockpile(s) contamination
- Processing and Crushing
  - Equipment used to feed screener or crusher
  - Excavation process based on equipment type
- Processing Millings
  - Single Project or Source
    - Screening, Fractionation, or Crushing plan
  - Multiple Source
    - Process to achieve uniform material from stockpile
    - Screening, Fractionation, or Crushing plan
- Processed RAP Stockpiles
  - Minimization of segregation
  - Minimization of moisture

IIB. RAP Stockpile Placement

All processed RAP stockpiles shall be placed on a sloped, paved surface. The requirement for a paved surface may be waived by the Cabinet if the Contractor's RAP Quality Management Plan demonstrates effective material handling that will minimize deleterious material from beneath the processed stockpile entering the plant. *No processed stockpile will be placed directly on grass or dirt.*

IIC. Stockpile Identification Signs

RAP stockpiles shall be identified with posted signs displaying the gradation of material in the stockpile (course, intermediate, or fine). These signs shall be made of weatherproof material and shall be highly visible. Numerals shall be easily readable from outside the stockpile area. If a stockpile exists in two or more parts, each part must have its own sign.

IID. Standard Approval Procedure

The Contractor shall obtain random samples representative of the entire stockpile and shall have each sample tested for gradation and asphalt content according to KM 64-426, KM 64-427, and AASHTO T308. The material samples must be in its final condition after all crushing and screening. At least one sample shall be obtained for each 1,000 tons of processed RAP, with a minimum of five samples per stockpile. Sampling shall be performed according to the method prescribed for asphalt mix aggregates in the Department's Materials Field Testing and Sampling Manual and KM 64-601. The minimum sampling size (after quartering) for tests of RAP samples is 1,500 g. except for samples containing particles more than one inch in diameter, for which the minimum is 2,000 g.

To request approval of a RAP stockpile, submit the following documents to the Division of Materials. It is the requester's responsibility to correctly address, label, and deliver these submittals:

• Submit request for approval at beginning of the paving season as part of the Annual Certification for Previously Approved Asphalt Mixing Plants and Related Equipment.

• If requesting approval after paving season begins, submit memo, including stockpile portion of the inspection list for Annual Certification for Previously Approved Asphalt Mixing Plants and Related Equipment, to Division of Materials.

• Reports of the tests prescribed above using the Stockpile <INSERT NAME> document.

• A drawing of the plant site showing the location of the stockpile to be approved *and all other stockpiles on the premises*

Mail, deliver or email the request form, with test reports and site drawing, to:

Kentucky Transportation Cabinet
Division of Materials
ATTN: Asphalt Branch Manager
1227 Wilkinson Boulevard
Frankfort, Kentucky 40601

Robert.Semones@ky.gov

IIE. Tests and inspections by the Department

The Department shall have the right to observe the collection of samples, or to perform the sampling and testing as a verification of contractor submittal. As a condition of approval, the Department may at any time inspect and sample RAP stockpiles for which approval has been requested and may perform additional quality control tests to determine the consistency and quality of the material.

The approval letter issued by the Department will include any results of verification testing performed by the Cabinet. The approved contractor results should be used by mix design technicians in the design calculations.

III. RAP STOCKPILE TIERED MANAGEMENT AND EFFECTIVE BINDER CONTENT

The stockpile management and approval requirements will be tiered based on the maximum cold feed percentages as defined in this section and Table 1. below.

Table 1. Tiered Testing Requirements

Mix Type	0-≤12%	12-≤20%	20-≤35%
Surface	Tier 1	Tier 2	Tier 3
Base	Tier 1	Tier 2	Tier 3

NOTE: All asphalt mixes and binder selection will be subject to Section 409 of the current Standard Specifications.

The following requirements will apply based on the percentage of RAP in the mix.

Tier 1

Tier 1 mixes (less than or equal to 12% RAP) will be subject to the requirements of sections IIA, IIB, and IIC.

Tier 2

Tier 2 mixes (12% to less than 20% RAP) will be subject to the requirements of Section II in its entirety and Table 2 requirements.

Tier 3

Tier 3 Asphalt Base mixes with 20% to less than 35% RAP, Tier 3 Asphalt Surface mixes with 20% to less than 30% RAP will be subject to Section II in its entirety and Table 2 requirements.

IV. MAXIMUM PERCENTAGE OF RAP ALLOWED

The Maximum Percent of RAP allowed in mix designs shall be the lowest percentage determined by the gradation and asphalt content of the RAP, as established under the criteria below, and requirements listed in Section III.

Limits according to range in gradation and bitumen content

The Maximum Percent of RAP Allowed, based on gradation and asphalt content, shall be determined by the Department using the standard deviation of these values. This standard deviation will be calculated using data provided by the contractor from at least five samples. While the contractor is required to provide the data from these tested samples, the Department retains the discretion to perform its own sampling and testing to support or verify its findings. An apparent outlier shall not be considered in determining these ranges. Where one result appears to be unrepresentative of the whole, two or more additional samples shall be tested. The outlying value of all tests shall then be excluded from the range. The maximum percentage of RAP allowable shall be the lowest percentage determined according to Table 2 below.

Table 2. Maximum Percent RAP According to Variability in Test Results

	Standard Deviation as calculated above:		
Surface			
% asphalt content	< 0.4	< 0.5	
% passing No. 200 sieve	< 1.25	< 1.5	
% passing Median Sieve	< 4.0	< 5.0	
	Allowable RAP Cold Feed %		
	Tier 3 - 20%-30%	Tier 2 - 12%-20%	Tier 1 - 0%-12%
Base			
% asphalt content	< 0.5	< 0.75	
% passing No. 200 sieve	< 1.5	< 2.25	
% passing Median sieve	< 5.0	< 7.0	
	Allowable RAP Cold Feed %		
	Tier 3 - 20%-35%	Tier 2 - 12%-20%	Tier 1 - 0%-12%

NOTE: These allowances notwithstanding, the Contractor is required to maintain the mixture within the Mixture Control Tolerances of Kentucky Method 443.
The percentage allowable in mix designs shall be limited to meet the design criteria for viscosity established in the Standard Specifications.

V. GENERAL STOCKPILE REQUIREMENTS AND REPLENISHMENT

V.A. Single Pavement Source

Early approval of material from a single pavement source. When a new stockpile is to consist entirely of millings removed from a single existing pavement, the stockpile may be approved based on samples taken during the milling and processing operations, prior to completion of milling. The initial stockpile may be approved as either a new stockpile or a new stockpile in continual replenishment status.

For continual replenishment status, samples shall be taken from the processed stockpile after it reaches 1,000 tons. A total of five initial samples, plus one additional sample for every 1,000 tons, is required. As prescribed in Part II above, the contractor shall test all samples and deliver the test results, together with a letter request for approval in Continual Replenishment status, to the address indicated. The stockpile shall be subject to initial approval as prescribed above in Part II. Once approved, it may be replenished without further approvals as provided in Part VII below.

V.B. Heterogeneous or contaminated material

Asphalt pavement millings containing traffic detection loops, raised pavement markers, or other debris must be separated and excluded before stockpiling RAP for approval for use in KYTC asphaltic concrete mixtures.

No material other than RAP from an approved stockpile shall be included in mixtures for State projects. The following materials are specifically excluded:

• Material contaminated with foreign matter such as liquids, soil, concrete, or debris

• Plant waste, especially waste containing abnormal concentrations of bitumen, drum build-up, or material from spills or plant clean-up operations

The following materials shall not be added to or placed in proximity to an approved stockpile but may be accumulated in a separate stockpile and submitted for approval according to Part III:

- Production mixtures returned to the plant for any reason.
- Mis-proportioned mixtures, especially those generated at start-up.

VI. REPLENISHMENT OF STOCKPILES

An approved RAP stockpile may be replenished with Department approval, provided the replenishment material meets all necessary requirements for approval and maintains uniformity in gradation and asphalt content as outlined in this document.

VI.A. Procedure and approval criteria

The procedure for requesting approval of a stockpile replenishment, that is not in continual replenishment status, shall be the same as for approval of an original stockpile, and the material for the replenishment shall meet all criteria for approval as a new stockpile. RAP proposed for replenishment shall be sampled and tested by the Contractor for gradation and asphalt cement as prescribed in Section II above. The Laboratory shall

review these results and provide approval for use in Department asphalt mix designs, according to Table 2 above.

VI.B. Effect of replenishment on existing approved mix designs

Replenishment of a stockpile may render certain mix designs invalid, depending on the percent RAP allowed in the design and on the difference in average properties between the old and new stockpiles. A replenished stockpile may be used as the RAP ingredient in an existing approved design provided that:

1. The Maximum Percent Allowed for the replenishment stockpile equals or exceeds the percent RAP called for in the mix design. In no case may the Maximum Percent Allowed be exceeded.

However, if a mix design calls for up to 5.0 percent more than the Maximum Percent Allowed for the replenishment, the *design* may be adjusted, with approval, to use the lower percent allowed, provided that the production mixture continues to meet all acceptance criteria. For example, a design which calls for 20 percent RAP may be adjusted and produced with 15 percent if it continues to meet for acceptance.

VII. CONTINUAL REPLENISHMENT WITHOUT RE-APPROVAL

At the request of the contractor, a previously approved stockpile may be placed in Continual Replenishment Status and may be replenished any number of times without re-approval provided that:

1. Replenishment is within six months of the last stockpile addition.
2. The contractor shall continue to monitor and test the materials added to the stockpile and shall forward these results to the Division of Materials for every 1,000 tons of RAP added to the stockpile.
3. The contractor must certify that replenishment materials are free of contaminants.
4. The Department shall be notified by letter to the Director of the Division of Materials that the stockpile is being replenished on a continual basis.
5. The RAP Maximum Percent Allowed for continual replenishment shall be limited by Sections III and IV.

Note: Upon request, one 20-pound sample bag of RAP for each Continual Replenishment Stockpile shall be submitted to the Division of Materials for petrographic analysis every 12 months.

The Department may inspect, sample, and test such stockpiles at its discretion and may, upon determining that the stockpile is unsuitable, withdraw approval of the material and all mix designs which include it. Approval of the stockpile may be withdrawn at any time based upon extreme or erratic ingredient proportions, unsuitable ingredients, or poor performance, as determined by the Division of Materials, Asphalt Branch. The Department will conduct periodic comparison testing on the opposite quarters of samples submitted by the Contractor for special replenishment approval category. The approval of the stockpile may be withdrawn if

erroneous information was found on the contractor's testing and/or improper sampling procedures were involved after a thorough investigation.

VIII. DEPLETION OF STOCKPILE AND EXPIRATION OF APPROVAL

When a stockpile has been fully depleted, the Contractor may replenish it within 24 months after the date of depletion; a depleted stockpile not replenished after 24 months will be removed from the approved list and may not be replenished.

Approval of a stockpile may be withdrawn if, in the finding of the Division of Materials, Asphalt Branch, the total amount of material used in new mixtures equals the total tonnage of the original stockpile plus all approved replenishments. Six years from the original approval of a stockpile or from its most recent replenishment, a stockpile shall be presumed to be depleted, and its approval shall expire. This shall apply to all stockpiles, regardless of status or history of use.

IX. RECORDS

The Contractor shall maintain records at the plant site on all RAP stockpiles. These records shall be available for inspection by representatives of the Department and shall include the following:

- All test results.
- The Department's approval letter for each stockpile and replenishment, together with the Contractor's requests for approval and all data submitted therewith.
- A current drawing of all stockpile locations at the plant site, including unapproved stockpiles, showing stockpile numbers of all stockpiles approved for State work.

X. RELOCATION OF STOCKPILE

If material from an approved RAP stockpile is to be moved to another location, the contractor shall seek approval from the Department prior to its further use on State projects. A letter request shall be submitted to the Division of Materials indicating the current stockpile location, the total quantity of material to be moved, and the amount, if any, to remain in the current location. The Division of Materials will issue an approval letter applicable to the new location.

June 18, 2025