

CALL NO. <u>317</u> CONTRACT ID. <u>252292</u> <u>JEFFERSON COUNTY</u> FED/STATE PROJECT NUMBER <u>FD05 056 031W 020-023</u> DESCRIPTION <u>WEST MAIN STREET (US 31W SOUTHBOUND ONLY)</u> WORK TYPE <u>ASPHALT RESURFACING</u> PRIMARY COMPLETION DATE 10/31/2025

LETTING DATE: July 24,2025

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME July 24,2025. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

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

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PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 05

CONTRACT ID - 252292

FD05 056 031W 020-023

COUNTY - JEFFERSON

PCN - MP056031W2501 FD05 056 031W 020-023

WEST MAIN STREET (US 31W SOUTHBOUND ONLY) (MP 20.300) BEGIN AT US 150/W WEST MAIN STREET EXTENDING SOUTH TO 145 FEET NORTH OF US 31 (MP 22.088), A DISTANCE OF 01.78 MILES.ASPHALT RESURFACING

GEOGRAPHIC COORDINATES LATITUDE 38:15:28.70 LONGITUDE 85:46:07.80 ADT 10,990

COMPLETION DATE(S):

COMPLETED BY 10/31/2025 APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

INSURANCE

Refer to Kentucky Standard Specifications for Road and Bridge Construction, current edition.

PROPOSAL ADDENDA

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

BID SUBMITTAL

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

foreign entity is not required to obtain a certificate as provided in <u>KRS 14A.9-010</u>, the foreign entity should identify the applicable exception. Foreign entity is defined within <u>KRS 14A.1-070</u>.

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

The state agency certifies that it is in compliance with the provisions of KRS 45A.150, "Access to contractor's books, documents, papers, records, or other evidence directly pertinent to the contract." The Contractor, as defined in KRS 45A.030, agrees that the contracting agency, the

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

BOYCOTT PROVISIONS

If applicable, the contractor represents that, pursuant to <u>KRS 45A.607</u>, they are not currently engaged in, and will not for the duration of the contract engage in, the boycott of a person or an entity based in or doing business with a jurisdiction with which Kentucky can enjoy open trade. **Note:** The term Boycott does not include actions taken for bona fide business or economic reasons, or actions specifically required by federal or state law.

If applicable, the contractor verifies that, pursuant to KRS 41.480, they do not engage in, and will not for the duration of the contract engage in, in energy company boycotts as defined by KRS 41.472.

LOBBYING PROHIBITIONS

The contractor represents that they, and any subcontractor performing work under the contract, have not violated the agency restrictions contained in <u>KRS 11A.236</u> during the previous ten (10) years, and pledges to abide by the restrictions set forth in such statute for the duration of the contract awarded.

The contractor further represents that, pursuant to <u>KRS 45A.328</u>, they have not procured an original, subsequent, or similar contract while employing an executive agency lobbyist who was convicted of a crime related to the original, subsequent, or similar contract within five (5) years of the conviction of the lobbyist.

Revised: 1/1/2025

1.0 BUY AMERICA REQUIREMENT.

Follow the "Buy America" provisions as required by 23 U.S.C. § 313 and 23 C.F.R. § 635.410. Except as expressly provided herein all manufacturing processes of steel or iron materials including but not limited to structural steel, guardrail materials, corrugated steel, culvert pipe, structural plate, prestressing strands, and steel reinforcing bars shall occur in the United States of America, including the application of:

- Coating,
- Galvanizing,
- Painting, and
- Other coating that protects or enhances the value of steel or iron products.

The following are exempt, unless processed or refined to include substantial amounts of steel or iron material, and may be used regardless of source in the domestic manufacturing process for steel or iron material:

- Pig iron,
- Processed, pelletized, and reduced iron ore material, or
- Processed alloys.

The Contractor shall submit a certification stating that all manufacturing processes involved with the production of steel or iron materials occurred in the United States.

Produce, mill, fabricate, and manufacture in the United States of America all aluminum components of bridges, tunnels, and large sign support systems, for which either shop fabrication, shop inspection, or certified mill test reports are required as the basis of acceptance by the Department.

Use foreign materials only under the following conditions:

- 1) When the materials are not permanently incorporated into the project; or
- 2) When the delivered cost of such materials used does not exceed 0.1 percent
- of the total Contract amount or \$2,500.00, whichever is greater.

The Contractor shall submit to the Engineer the origin and value of any foreign material used.

2.0 – BUILD AMERICA, BUY AMERICA (BABA)

Contractor shall comply with the Federal Highway Administration (FHWA) Buy America Requirement in 23 C.F.R. § 635.410 and all relevant provisions of the Build America, Buy America Act (BABA), contained within the Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, §§ 70901-52 enacted November 15, 2021. The BABA requires iron, steel, manufactured products, and construction materials used in infrastructure projects funded by federal financial assistance to be produced in the United States. Comply with 2 C.F.R § 184.

BABA permits FHWA participation in the Contract only if domestic steel and iron will be used on the Project. To be considered domestic, all steel and iron used, and all products manufactured from steel and iron must be produced in the United States and all manufacturing processes, including application of a coating, for these materials must occur in the United States. Coating includes all processes that protect or enhance the value of the material to which the coating is applied. This requirement does not preclude a minimal use of foreign steel and iron materials, provided the cost of such materials does not exceed 0.1% of the total contract amount under the Contract or \$2,500.00 whichever is greater.

BABA permits FHWA participation in the Contract only if all "construction materials" as defined in the Act are made in the United States. The Buy America preference applies to the following construction materials incorporated into infrastructure projects: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); Fiber optic cable; optical fiber; lumber; engineered wood; and drywall. Contractor will be SPECIAL NOTE – BUY AMERICA REQUIREMENTS AND BUILD AMERICA, BUY AMERICA (BABA) ACT______

required to use construction materials produced in the United States on this Project. The Contractor shall submit a certification stating that all construction materials are certified to be BABA compliant.

3.0 FINAL RULE – FHWA'S BUY AMERICA REGULATION TO TERMINATE GENERAL APPLICABILITY WAIVER FOR MANUFACTURED PRODUCTS

- March 17, 2025 (effective date): For all Federal-aid projects obligated on or after March 15, 2025, all iron or steel products, as defined in § 635.410(c)(1)(iii), must comply with FHWA's Buy America requirements for steel and iron in § 635.410(b). In addition, for all Federal-aid projects obligated on or after March 15, 2025, per § 635.410(c)(2), articles, materials, and supplies should be classified as an iron or steel product, a manufactured product, or another product as specified by law or in 2 CFR part 184 (such other products specified by law or in 2 CFR part 184 (such other products specified by law or in 2 CFR part 184 include "excluded materials" and "construction materials"); an article, material, or supply must not be considered to fall into multiple categories.
- October 1, 2025: The final assembly requirement will become effective for Federal-aid projects obligated on or after October 1, 2025. This means that, for manufactured product to be Buy America compliant, for Federal-aid projects obligated on or after October 1, 2025, final assembly of the manufactured product must occur in the United States.
- October 1, 2026: The 55 percent requirement will become effective for Federal-aid projects obligated on or after October 1, 2026. This means that, for manufactured product to be Buy America-compliant, for Federal-aid projects obligated on or after October 1, 2026, all manufactured products permanently incorporated into the project must both be manufactured in the United States (satisfy the final assembly requirement) and have the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States be greater than 55 percent of the total cost of all components of the manufactured product (satisfy the 55 percent requirement).

4.0 – ADDITIONAL REQUIREMENTS

The Contractor has completed and submitted, or shall complete and submit, to the Cabinet a Buy America/ Build America, Buy America Certificate prior to the Cabinet issuing the notice to proceed, in the format below. After submittal, the Contractor is bound by its original certification.

A false certification is a criminal act in violation of 18 U.S.C. § 1001. The Contractor has the burden of proof to establish that it's in compliance.

At the Contractor's request, the Cabinet may, but is not obligated to, seek a waiver of Buy America requirements if grounds for the waiver exist under 23 C.F.R. § 635.410(c) or will comply with the applicable Buy America requirements if a waiver of those requirements is not available or not pursued by the Cabinet.

Please refer to the Federal Highway Administration's Buy America webpage for more information.

<u>Buy America - Construction Program Guide - Contract Administration - Construction - Federal Highway</u> <u>Administration (dot.gov)</u> SPECIAL NOTE – BUY AMERICA REQUIREMENTS AND BUILD AMERICA, BUY AMERICA (BABA) ACT______

BUY AMERICA / BUILD AMERICA, BUY AMERICA (ACT) MATERIALS CERTIFICATE OF COMPLIANCE

The Contractor hereby certifies that it will comply with all relevant provisions of the Build America, Buy America Act, contained within the Infrastructure Investment and Jobs Act, Pub. L. NO. 117-58, §§ 70901-52, the requirements of 23 U.S.C. § 313, 23 C.F.R. § 635.410 and 2 C.F.R § 184.

Date Submitted:

Contractor:_____

Signature:_____

Printed Name:_____

Title:_____

NOTE: THIS CERTIFICATION IS IN ADDITION TO ANY AND ALL REQUIREMENTS OUTLINED IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND/OR SPECIAL NOTES CONTAINED IN THE PROJECT PROPOSAL.

SPECIAL NOTE FOR RECIPROCAL PREFERENCE

RECIPROCAL PREFERENCE TO BE GIVEN BY PUBLIC AGENCIES TO RESIDENT BIDDERS

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

April 30, 2018

ASPHALT MIXTURE

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

DGA BASE

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

INCIDENTAL SURFACING

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

FUEL AND ASPHALT PAY ADJUSTMENT

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

OPTION A

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

General Notes & Special Provision

GENERAL NOTES

Project Description

This project involves the resurfacing of Main St. between 23rd St. and 2nd St. and includes the conversion of the portion between 22nd St. and 10th St. from one-way travel to two-way. This project is to improve the road environment for vehicles, pedestrians and other vulnerable users. Among other activities, this proposal includes asphalt resurfacing and striping. The Contract will follow the Kentucky Standard Specifications for Road and Bridge Construction, 2019.

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. Section references are to the Standard Specifications.

Caution

Potential bidders are cautioned that the information within this proposal is approximate only and is not to be taken as an exact evaluation of the bid quantities, nor the materials and conditions that may be encountered during construction. As such, before submitting a bid, potential bidders shall make a thorough inspection of the site to examine the conditions to be encountered per Section 102.07. Furthermore, during the execution of the work, the Engineer reserves the right to make changes to the bid item quantities and/or alterations in the work when necessary to complete the project satisfactorily per Section 104.02.

NOTE: The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

On-Site Inspection

Before submitting a bid for the work, make a thorough inspection of the site and determine existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid to be evidence of this inspection having been made. The Department will not honor any claims for money or time extension resulting from site conditions.

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

General Notes & Special Provisions Page 2 of 2

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.

SPECIAL PROVISION - BID ITEM MODIFICATIONS

Any materials or labor necessary to complete the work as shown in the drawings that does not have a pay item listed in the drawings shall be considered incidental to the Contract without consideration for additional compensation.

Contrary to Section 202 of the Standard Specifications, only the vegetation identified for removal should be removed unless additional vegetation is identified by the ENGINEER. Burning or burial of perishable material on site will not be allowed.

The Bike Path pay item shall be for the construction of the green Bike Lane markings using PPG's MMAX Extended Season Area Marking material. The item shall be constructed according to manufacturer's recommended specifications and will be measured and paid in accordance with Section 714 and 717 of the Standard Specifications. Additionally, construction of the first area should be performed in the presence of a PPG product specialist to be identified by the Engineer to ensure the construction techniques result in an acceptable constructed product. The following pay item will be applicable:

<u>Code</u>	Description	<u>Pay Unit</u>
23974EC	Bike Path	SQYD

SPECIAL NOTE FOR PAVEMENT MARKING PLAN MODIFICATIONS

This Proposal includes striping plans for the reconfiguration of Main Street that shall be implemented with the resurfacing. However, the Department reserves the right to make additional changes to the project plans prior to work commencing. The Contractor shall notify the Engineer a minimum of 3 weeks (21 calendar days) prior to resurfacing activities beginning in order to coordinate any Department requested plan revisions, ensuring the modifications can be performed during final surfacing. As the Contractor is responsible for implementing the pavement marking changes, it is highly recommended all questions are addressed to the Department prior to striping activities. Any incorrect marking installations will be removed and replaced at the Contractor's expense and in a manner approved by the Engineer.

ENNIS-FLINT

Extended Season MMAX[®] Colored Lane Treatment with Corundum

by PPG

PRODUCT DESCRIPTION: Extended Season $MMAX^{\textcircled{R}}$ colored lane treatment is a preferential lane treatment system combining methyl methacrylate resins with hardwearing aggregate and colorfast pigments to deliver an extremely durable, non-slip, highly visible, and color-stable area marking that can be applied year-round. $MMAX^{\textcircled{R}}$ colored lane treatment can be used to delineate bike lanes, bus lanes, or other specialty applications, where a durable area marking is required.

ADVANTAGES:

- Extended season application in summer and winter
- Durable
- Color-stable
- Fast back-to-traffic
- Non-slip surface
- Easy to apply; pre-packaged for on-site mixing and convenience

AVAILABLE COLORS:

- EF Green (PMS 361C) 999670G-KIT
- Transit Lane Red (PMS 7622C) 999670TRAN-KIT
- Truffle (PMS 7530C) 999670TR-KIT
- Terracotta (PMS 7595C) 999670TC-KIT
- Brick Red (PMS 7624C) 999670BR-KIT
- Hollywood Green (PMS 7484C) 999670G349-KIT
- Red (PMS 200C) 999670R-KIT
- White 999670W-KIT

TECHNICAL DATA:

ASTM Testing	Results	Test Method	
Hardness	50-60 Shore D	D2240	
	Corundum only: 9	Mohs Scale	
Elongation	> 30%	D638 Type I	
No Pick-Up Time at 77°F	< 30 minutes	D711	
Density	18.5 +/- 0.5 lbs/gallon	D1475	
Viscosity	85-105 Krebs	2195-99	
Total Solids	> 99%	D2369	
Pot Life	< 15 minutes	AASHTO T-237	
VOC	< 100 grams/liter	D3960-05	
Skid	> 60 BPN	E303	
Water Absorption	< 0.25%	D570	

PACKAGING:

One kit includes:

- MMAX[®] colored lane treatment resin: 2 gallons / 7.57 liters
- Supplied in 5 gallon pail for easy mixing
- MMAX[®] material aggregate: 1 25.0 lbs. / 11.34 kg bag
- Catalyst: 8 fl. oz. / 236 ml (0.52 lbs. / 0.24 kg)

THEORETICAL COVERAGE: Each MMAX[®] colored lane treatment kit mixes to 2.79 gallons and covers approximately 45-50 sq. ft. @ 90-mil build thickness. Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, method of application, surface irregularities, overthinning, climate conditions, or excessive film build.

DRY TIME: MMAX[®] colored lane treatment dries to a lab ASTM D711 no pickup in less than 30 minutes when ambient and surface temperature are 77° F at $50\pm5\%$ humidity. Dry time is temperature, humidity, and film thickness dependent. MMAX[®] colored lane treatment must be 100% cured, which will be a hardened, solid state, before traffic is permitted. Curing typically takes 30-60 minutes and is based on temperature and amount of catalyst added.

PRODUCT DATA SHEET

ENNIS-FLINT

Extended Season MMAX[®] Colored Lane Treatment with Corundum

by PPG

STORAGE: Avoid extreme storage temperatures. Keep materials in dry, protected areas, between 40°F-80°F. Keep out of the direct sunlight and protected from open flame.

SHELF LIFE: Shelf life is one year in unopened packaging.

PRODUCT APPLICATION INSTRUCTIONS

RECOMMENDED EQUIPMENT: Squeegees shall be designed for heavy-duty usage and sourced locally. Rollers shall be medium nap in texture and require a roller cage and handle. Sprayers shall be capable of 98:2 mix ratios by weight of resin to catalyst. Drill shall be high speed, high torque, capable of supplying enough power to thoroughly mix MMAX[®] colored lane treatment additives when paired with a paint mixing paddle.

SURFACE PREPARATION: MMAX[®] colored lane treatment can be applied on stable, well compacted asphalt or nonbituminous concrete surfaces, such as Portland cement concrete. New substrates should be allowed to age harden or cure for minimum 15 days (asphalt) to 30 days (concrete) before installation. Clean the application area thoroughly. All loose particles dirt, sand dust, etc. - must be removed. Use a broom and power blower or compressed air. The surface must be clean, dry, and free of all dust, oil, debris, and any other material that might interfere with the bond between the material and surface to be treated. Clean areas containing chemical contaminants such as vehicle fluids using a degreasing solution. Ensure removal of contaminants and degreasing solution well in advance of the application. All curing compounds shall be completely removed from concrete surfaces prior to installation by shot blasting, water blasting, or grinding. Existing concrete surfaces shall be wire brushed but may require blasting or grinding, dependent on condition. Aged surfaces containing reflective cracking should be repaired or it should be expected that the reflective cracking may reappear.

OBSTACLES: Pavement markings that are to be left in place, utilities, drainage structures, curbs, and any other structure within or adjacent to the treatment location shall be masked to protect from application. Existing pavement markings conflicting with the surface treatment should be removed by grinding or water blasting. Extra care should be taken to thoroughly remove the dust and debris caused from grinding.

MIXING: Catalyst quantity shall be based on pavement temperature per the materials mixing guide below and must be mixed very thoroughly with the resin using a drill. Check spray equipment capabilities to determine whether to add aggregate to mix or broadcast during application. Material with aggregate shall mix to approximately 2.79 gallons (10.55 liters) and weigh approximately 52 lbs. (23.6 kg). Clean the mixing paddle between uses or material will immediately initiate curing if exposed to previously catalyzed material (and not cleaned).

Component	Quantity	Unit
Resin	2 (7.6)	gallons (liters)
Aggregate	25.0 (11.34)	lbs (kg)
Powder Catalyst	0.52 (0.24)	lbs (kg)
< 80°F (< 27°C)	8 (0.24)	fluid ounces (liters)
Powder Catalyst	0.26 (0.12)	lbs (kg)
80°F to 130°F (27°C to 54°C)	4 (0.12)	fluid ounces (liters)
Powder Catalyst	0.24 (0.108)	lbs (kg)
130°F to 150°F (54°C to 65°C)	3.5 (0.10)	fluid ounces (liters)

MATERIALS MIXING GUIDE

INSTALLATION WITHOUT SPECIALIZED EQUIPMENT: Mixed MMAX[®] colored lane treatment shall immediately be poured onto the pavement and distributed at 45-50 sq. ft. per pail using a squeegee. Trowels can be used where a squeegee is not effective. Use roller to back roll the material to remove working lines and create a consistent, anti-slip texture. Remove masking as material gels, but before it cures.

INSTALLATION WITH SPECIALIZED SPRAY EQUIPMENT: Sprayers shall be capable of 98:2 mix ratios by weight of resin to catalyst. Aggregate can either be broadcast after the first spray pass, followed by a second pass; or mixed into the resin part depending on spray equipment capabilities.

CLEAN UP: Clean all tools in acetone before material is cured. Clean in well ventilated areas and do not come into direct contact with solvents - use proper personal protective equipment per the Safety Data Sheet. Acetone is extremely flammable; take proper handling measures to reduce static discharge and combustion. Dispose of all contaminated materials in accordance with all applicable federal, state and local laws and regulations.

ENNIS-FLINT

Extended Season MMAX[®] Colored Lane Treatment with Corundum

by PDG

LIMITATIONS OF LIABILITY:

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Special Note for Completion Date & Liquidated Damages

I. COMPLETION DATE

The ultimate fixed completion date for this project will be October 31, 2025. Liquidated Damages for failure to complete the project on time will be assessed following Section 108.09.

II. LIQUIDATED DAMAGES

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of **<u>\$1,000</u>** per hour for each hour, or fraction of an hour, for any and all lane closures that are in place beyond the time frame(s) noted in the Traffic Control Plan and approved by the Engineer.

Contrary to Section 108.09, Liquidated Damages will be assessed regardless of whether seasonal limitations prohibit the Contractor from performing work on the controlling operation.

<u>NOTE</u>: At the sole discretion of the Engineer, all, or part, of these Liquidated Damages may be waived due to unforeseen circumstances, such as unexpected weather.

Trees and/or bushes that are <u>3 inches</u> or greater (diameter at breast height) shall not be cut or trimmed between June 1st and July 31st. Any trees and/or bushes that are cut or trimmed between June 1st and July 31st will <u>NOT</u> receive payment at the contract unit price. Furthermore, failure to adhere to these restrictions shall result in Liquidated Damages in the amount of **<u>\$344</u>** per affected tree. Activities that are a part of this contract that do not involve the initial trimming and/or cutting of trees and/or bushes will be permitted under the ultimate fixed completion date.

Contrary to Section 108.09, Liquidated Damages will be assessed for the months of December through March.

All liquidated damages will be applied accumulatively.

All other applicable portions of Section 108 apply.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

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

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

SPECIAL NOTE FOR NON-TRACKING TACK COAT

1. DESCRIPTION AND USEAGE. This specification covers the requirements and practices for applying a non-tracking tack asphalt coating. Place this material on the existing pavement course, prior to placement of a new asphalt pavement layer. Use when expedited paving is necessary or when asphalt tracking would negatively impact the surrounding area. This material is not suitable for other uses. Ensure material can "break" within 15 minutes under conditions listed in 3.2.

2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Non-Tracking Tack. Provide material conforming to Subsection 2.1.1.

2.1.1	Provide a tack conforming to the following material requirements:	

Property	Specification	Test Procedure
Viscosity, SFS, 77 ° F	20 - 100	AASHTO T 72
Sieve, %	0.3 max.	AASHTO T 59
Asphalt Residue ¹ , %	50 min.	AASHTO T 59
Oil Distillate, %	1.0 max.	AASHTO T 59
Residue Penetration, 77 ° F	0 - 30	AASHTO T 49
Original Dynamic Shear (G*/sin δ), 82 ° C	1.0 min.	AASHTO T 315
Softening Point, ° F	149 min.	AASHTO T 53
Solubility, %	97.5 min.	AASHTO T 44

¹Bring sample to 212 °F over a 10-15 minute period. Maintain 212 °F for 15-20 minutes or until 30-40 mL of water has distilled. Continue distillation as specified in T59.

- 2.2. Equipment. Provide a distributor truck capable of heating, circulating, and spraying the tack between 170 °F and 180 °F. Do not exceed 180 °F. Circulate the material while heating. Provide the correct nozzles that is recommend by the producer to ensure proper coverage of tack is obtained. Ensure the bar can be raised to between 14" and 18" from the roadway.
- 2.3. Personnel. Ensure the tack supplier has provided training to the contractor on the installation procedures for this product. Make a technical representative from the supplier available at the request of the Engineer.

3. CONSTRUCTION.

Surface Preparation. Prior to the application of the non-tracking tack, ensure the 3.1 pavement surface is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the surface by scraping, sweeping, and the use of compressed air. Ensure this preparation process occurs shortly before application to prevent the return of debris on to the pavement. If rain is expected within one hour after application, do not apply material. Apply material only when the surface is dry, and no precipitation is expected.

3.2 Non-tracking Tack Application. Placement of non-tracking tack is not permitted from October 1st to May 15th. When applying material, ensure the roadway temperature is a minimum of 40°F and rising. Prior to application, demonstrate competence in applying the tack according to this note to the satisfaction of the Engineer. Heat the tack in the distributor to between 170 - 180 °F. After the initial heating, between 170 - 180 °F, the material may be sprayed between 165 °F and 180 °F. Do not apply outside this temperature range. Apply material at a minimum rate of 0.70 pounds (0.08 gallons) per square yard. Ensure full coverage of the material on the pavement surface. Full coverage of this material is critical. Increase material application rate if needed to achieve full coverage. Schedule the work so that, at the end of the day's production, all non-tracking tack is covered by an asphalt mixture. If for some reason the non-tracking tack cannot be covered by an asphalt mixture, ensure the non-tracking tack material is clean and reapply the non-tracking tack prior to placing the asphalt mixture. Do not heat material more than twice in one day.

3.3 Non-tracking Tack Certification. Furnish the tack certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a sample of non-tracking tack be taken from the distributor at a rate of one sample per 15,000 tons of mix. Take two 1 gallon samples of the heated material and forward the sample to the Division of Materials for testing within 7 days. Ensure the product temperature is between 170 and 180 °F at the time of sampling.

- 4. MEASUREMENT. The Department will measure the quantity of non-tracking tack in tons. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of non-tracking tack, the cleaning of the pavement surface, or furnishing and placing the non-tracking tack. The Department will consider all such items incidental to the non-tracking tack.
- 5. PAYMENT. The Department will pay for the non-tracking tack at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. Non-tracking tack will not be permitted for use from October 1st to May 15th. During this timeframe, the department will allow the use of an approved asphalt emulsion in lieu of a non-tracking tack product but will not adjust the unit bid price of the material. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

Non-Tracking Tack Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Viscosity, SFS, 77 ° F	20 - 100	19 - 102	17 - 18	15 - 16	14	≤13
			103 - 105	106 - 107	108 - 109	≥110
Sieve, %	0.30 max.	\leq 0.40	0.41 - 0.50	0.51 - 0.60	0.61 - 0.70	≥ 0.71
Asphalt Residue, %	50 min.	≥49.0	48.5 - 48.9	48.0 - 48.4	47.5-47.9	≤ 47.4
Oil Distillate, %	1.0 max.	≤1.0	1.1-1.5	1.6 - 1.7	1.8-1.9	>2.0
Residue Penetration, 77 ° F.	30 max.	≤ 31	32 - 33	34 - 35	36 - 37	≥ 38
Original Dynamic Shear (G*/sin δ), 82 ° C	1.0 min.	≥0.95	0.92 - 0.94	0.90 - 0.91	0.85 - 0.89	≤ 0.84
Softening Point, ° F	149 min.	≥145	142 - 144	140 - 141	138 - 139	≤137
Solubility, %	97.5 min.	≥ 97.0	96.8 - 96.9	96.6 - 96.7	96.4 - 96.5	≤ 96.3

<u>Code</u> 24970EC Pay Item Asphalt Material for Tack Non-Tracking <u>Pay Unit</u> Ton

Revised: May 23, 2022

SPECIAL NOTE FOR ELECTRONIC DELIVERY MANAGEMENT SYSTEM (e-Ticketing) ASPHALT

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

1.0 DESCRIPTION. Incorporate an e-Ticketing Delivery Software for weighed asphalt material delivered to the project to report loads and provide daily running totals of weighed asphalt material for pay items and incidental work during the construction processes from the point of measurement and loading to the point of incorporation to the project.

2.0 MATERIALS AND EQUIPMENT. Contractor shall supply material data in JavaScript Object Notation (JSON) documents to the KYTC e-Ticketing Delivery Software (KYTC e-Ticketing Portal) via Application Programming Interface (API) or direct connection. Test and verify that ticket data can be shared from the original source no fewer than 30 days prior to material placement activities. An e-Ticketing Delivery Software supplier can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verifications, and data management and processing as needed during the Project to maintain material data delivery capabilities. Virtual meetings may be hosted in lieu of on-site meetings when deemed appropriate by the Engineer.

Provide e-Ticketing Delivery Software that will meet the following:

- 1. The e-Ticketing Delivery Software shall be fully integrated with the Contractor's Load Read-Out scale system at the material source location.
- 2. The e-Ticketing Delivery Software shall provide real-time delivery to KYTC e-Ticketing Portal.
- 3. Transmit any updates to the ticket data within 5 minutes of a change.

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

A. Construction Requirements

- 1. Install and operate software in accordance with the manufacturer's specifications.
- 2. Verify that all pertinent information is provided by the software within the requirements of this Special Note.

B. Data Deliverables

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

1. Asphalt Material

a. Real-time Continuous Data Items

Provide the Engineer access to JSON documents capable of being transmitted through the KYTC's e-Ticketing Portal that displays the following information in real-time with a web-based system compatible with iOS and Windows environments.

- Each Truck
 - Supplier Name
 - Supplier Address
 - Supplier Phone
 - Plant location
 - o Date
 - Time at source
 - Project Location

- Contract ID#
- o Carrier Name
- o Unique Truck ID
- Description of Material
- Mix Design Number
- Gross, Tare and Net Weight
- o Weighmaster

4.0 MEASUREMENT. The Department will not measure the electronic delivery management system.

5.0 PAYMENT. The Department will not measure this work for payment and will consider all items contained in this note to be incidental to the asphalt mixtures on the project, as applicable.

May 5, 2025

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° +/- 1.8° 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. If the 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
 - o 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
 - o 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 <u>KM 64-426</u>, <u>KM 64-427</u>, 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.

Міх Туре	<u>0-≤</u> 12%	12- <u><</u> 20%	20- <u><</u> 35%
Surface	Tier 1	Tier 2	Tier 3
Base	Tier 1	Tier 2	Tier 3

Table 1. Tiered Testing Requirements

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.

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

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

COORDINATION OF WORK WITH OTHER CONTRACTS

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

1-3193 Coordination Contracts 01/02/2012

SPECIAL NOTE FOR ASPHALT MILLING AND TEXTURING

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

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

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

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

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

1-3725 Typical Section Dimensions 01/02/2012

SPECIAL NOTE FOR SIDEWALK RAMPS & DETECTABLE WARNINGS

GENERAL

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

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

MEASUREMENT & PAYMENT

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

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

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

1-3791 Sidewalk Ramps Pay SY 06/10/2016

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

Maintain at least one lane of traffic at all times during construction. 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.

Access at 9th Street to the I-64 EB Entrance Ramp shall be maintained at all times during construction.

The Contractor should schedule and perform construction within the vicinity of the 22nd Street intersection (more specifically, Western Middle School) while school is not in session.

This project is located near a residential area. No work except asphalt paving and placement of striping/markings shall be conducted between 9 P.M. and 6 A.M., unless otherwise approved by the Engineer.

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

Do NOT erect lane closures during the following days and/or hours:

<u>Normal Workday Rush Hours</u> Monday-Friday 7:00 AM – 9:00 AM, and 4:00 PM – 6:00 PM, daily

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

The Department will provide public notification regarding lane closures. The Contractor shall submit proposed lane closure days and times to the Engineer at least 14 calendar days in advance for approval. Liquidated

Traffic Control Plan Page 2 of 9

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.

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ARROW PANELS

Use arrow panels as shown on the Standard Drawings or as directed by the Engineer. The Department will measure for payment the maximum number of arrow panels in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Arrow Panels only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged Arrow Panels or for panels signs the Engineer directs be replaced due to poor condition or readability for payment. Retain possession of the Arrow Panels upon completion of the work.

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 INTERSECTION 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:

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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. Wedge the drop-off with DGA or asphalt mixture for leveling and wedging with a 1:1 or flatter slope in daylight hours, or 3:1 or flatter slope during nighttime hours, when work is not active in the drop-off area.

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

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

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USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS

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

Application

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

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

CMS should not be used for:

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

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Messages

Basic principles that are important to providing proper messages and 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:

AccessACCSCRASH AHEAD/ USE ACCS RD NEXT RIGHTAlternateALTCRASH AHEAD/ USE ALT RTE NEXT RIGHTAvenueAVEFIFTH AVE CLOSED/ DETOUR NEXT LEFTBlockedBLKDFIFTH AVE BLKD/ MERGE LEFTBolevardBLVDMAIN BLVD CLOSED/ USE ALT RTEBridgeBRDGSMITH BRDG CLOSED/ DETOUR NEXT LEFTCardinal DirectionsN, S, E, WN 175 CLOSED/ DETOUR EXIT 30CenterCNTRCNTR LANE CLOSED/ MERGE LEFTCommercialCOMMOVR5Z COMM VEH/ USE 1275ConditionCONDICY COND POSSIBLECongestedCONGHVY CONG NEXT 3 MIConstructionCONSTCONST WORK AHEAD/ EXPECT DELAYSDowntownDWNTNDWNTN TRAF USE EX40EastboundE-BND IE -BND IE4 CLOSED/ DETOUR EXIT 20EmergencyEMEREMER VEH AHEAD/ PREPARE TO STOPEntrance, EnterEX, EXTDWNTN TRAF USE EX40ExpresswayFRWY, FWYGN SYNDR FWY CLOSED/ DETOUR EXIT 10FreewayFRWY, FWYGN SYNDR FWY CLOSED/ DETOUR EXIT 15Hazardous MaterialsHAZMATHAZMAT IN ROADWAY/ ALL TRAF EXIT 25HighwayHWYCRASH ON AA HWY/ 24 RD ELAYInformationINFOTRAF INFO TUNE TO 1240 AMInterstateIE-BND I64 CLOSED / DETOUR EXIT 20LaneLNLN CLOSED MERGE LEFTLeftLFTLANE CLOSED / DETOUR EXIT 25MaintenanceMAINTMAINT MARINT WAR ON BRDG / SLOWMajorMAJMAID ELAYS 175/ USE ALT RTEMinutes<	Word	Abbrev	Example
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LocalLOCLOC TRAF USE ALT RTEMaintenanceMAINTMAINT WRK ON BRDG/ SLOWMajorMAJMAJ DELAYS 175/ USE ALT RTEMileMICRASH 3 MI AHEAD/ USE ALT RTEMinorMNRCRASH 3 MI AHEAD/ USE ALT RTEMinutesMINCRASH 3 MI/ 30 MIN DELAYNorthboundN-BNDN-BND 175 CLOSED/ DETOUR EXIT 50OversizedOVRSZOVRSZ COMM VEH/ USE 1275 NEXT RIGHTParkingPKINGEVENT PKING NEXT RGTParkwayPKWYCUM PKWAY TRAF/ DETOUR EXIT 60PreparePREPCRASH 3 MI/ PREP TO STOPRightRGTEVENT PKING NEXT RGTRoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Lane	LN	LN CLOSED MERGE LEFT
MaintenanceMAINTMAINT WRK ON BRDG/ SLOWMajorMAJMAJ DELAYS 175/ USE ALT RTEMileMICRASH 3 MI AHEAD/ USE ALT RTEMinorMNRCRASH 3 MI MNR DELAYMinutesMINCRASH 3 MI/ 30 MIN DELAYNorthboundN-BNDN-BND 175 CLOSED/ DETOUR EXIT 50OversizedOVRSZOVRSZ COMM VEH/ USE 1275 NEXT RIGHTParkingPKINGEVENT PKING NEXT RGTParkwayPKWYCUM PKWAY TRAF/ DETOUR EXIT 60PreparePREPCRASH 3 MI/ PREP TO STOPRightRGTEVENT PKING NEXT RGTRoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Left	LFT	LANE CLOSED MERGE LFT
MajorMAJMAJ DELAYS I75/ USE ALT RTEMileMICRASH 3 MI AHEAD/ USE ALT RTEMinorMNRCRASH 3 MI MNR DELAYMinutesMINCRASH 3 MI/ 30 MIN DELAYNorthboundN-BNDN-BND I75 CLOSED/ DETOUR EXIT 50OversizedOVRSZOVRSZ COMM VEH/ USE I275 NEXT RIGHTParkingPKINGEVENT PKING NEXT RGTParkwayPKWYCUM PKWAY TRAF/ DETOUR EXIT 60PreparePREPCRASH 3 MI/ PREP TO STOPRightRGTEVENT PKING NEXT RGTRoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Local	LOC	LOC TRAF USE ALT RTE
MileMICRASH 3 MI AHEAD/ USE ALT RTEMinorMNRCRASH 3 MI MNR DELAYMinutesMINCRASH 3 MI/ 30 MIN DELAYNorthboundN-BNDN-BND I75 CLOSED/ DETOUR EXIT 50OversizedOVRSZOVRSZ COMM VEH/ USE 1275 NEXT RIGHTParkingPKINGEVENT PKING NEXT RGTParkwayPKWYCUM PKWAY TRAF/ DETOUR EXIT 60PreparePREPCRASH 3 MI/ PREP TO STOPRightRGTEVENT PKING NEXT RGTRoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Maintenance	MAINT	MAINT WRK ON BRDG/ SLOW
MinorMNRCRASH 3 MI MNR DELAYMinutesMINCRASH 3 MI/ 30 MIN DELAYNorthboundN-BNDN-BND I75 CLOSED/ DETOUR EXIT 50OversizedOVRSZOVRSZ COMM VEH/ USE 1275 NEXT RIGHTParkingPKINGEVENT PKING NEXT RGTParkwayPKWYCUM PKWAY TRAF/ DETOUR EXIT 60PreparePREPCRASH 3 MI/ PREP TO STOPRightRGTEVENT PKING NEXT RGTRoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Major	MAJ	MAJ DELAYS 175/ USE ALT RTE
MinutesMINCRASH 3 MI/ 30 MIN DELAYNorthboundN-BNDN-BND 175 CLOSED/ DETOUR EXIT 50OversizedOVRSZOVRSZ COMM VEH/ USE 1275 NEXT RIGHTParkingPKINGEVENT PKING NEXT RGTParkwayPKWYCUM PKWAY TRAF/ DETOUR EXIT 60PreparePREPCRASH 3 MI/ PREP TO STOPRightRGTEVENT PKING NEXT RGTRoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Mile	MI	CRASH 3 MI AHEAD/ USE ALT RTE
NorthboundN-BNDN-BND 175 CLOSED/ DETOUR EXIT 50OversizedOVRSZOVRSZ COMM VEH/ USE 1275 NEXT RIGHTParkingPKINGEVENT PKING NEXT RGTParkwayPKWYCUM PKWAY TRAF/ DETOUR EXIT 60PreparePREPCRASH 3 MI/ PREP TO STOPRightRGTEVENT PKING NEXT RGTRoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Minor	MNR	CRASH 3 MI MNR DELAY
OversizedOVRSZOVRSZ COMM VEH/ USE 1275 NEXT RIGHTParkingPKINGEVENT PKING NEXT RGTParkwayPKWYCUM PKWAY TRAF/ DETOUR EXIT 60PreparePREPCRASH 3 MI/ PREP TO STOPRightRGTEVENT PKING NEXT RGTRoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Minutes	MIN	CRASH 3 MI/ 30 MIN DELAY
ParkingPKINGEVENT PKING NEXT RGTParkwayPKWYCUM PKWAY TRAF/ DETOUR EXIT 60PreparePREPCRASH 3 MI/ PREP TO STOPRightRGTEVENT PKING NEXT RGTRoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Northbound	N-BND	N-BND 175 CLOSED/ DETOUR EXIT 50
ParkwayPKWYCUM PKWAY TRAF/ DETOUR EXIT 60PreparePREPCRASH 3 MI/ PREP TO STOPRightRGTEVENT PKING NEXT RGTRoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Oversized	OVRSZ	OVRSZ COMM VEH/ USE 1275 NEXT RIGHT
PreparePREPCRASH 3 MI/ PREP TO STOPRightRGTEVENT PKING NEXT RGTRoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Parking	PKING	EVENT PKING NEXT RGT
RightRGTEVENT PKING NEXT RGTRoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Parkway	PKWY	CUM PKWAY TRAF/ DETOUR EXIT 60
RoadRDHAZMAT IN RD/ ALL TRAF EXIT 25RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Prepare	PREP	CRASH 3 MI/ PREP TO STOP
RoadworkRDWKRDWK NEXT 4 MI/ POSSIBLE DELAYSRouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Right	RGT	EVENT PKING NEXT RGT
RouteRTEMAJ DELAYS 175/ USE ALT RTEShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Road	RD	HAZMAT IN RD/ ALL TRAF EXIT 25
ShoulderSHLDRSHLDR CLOSED NEXT 5 MISlipperySLIPSLIP COND POSSIBLE/ SLOW SPD	Roadwork	RDWK	RDWK NEXT 4 MI/ POSSIBLE DELAYS
Slippery SLIP SLIP COND POSSIBLE/ SLOW SPD		RTE	-
Southbound S-BND S-BND 175 CLOSED/ DETOUR EXIT 50		SLIP	-
	Southbound		S-BND 175 CLOSED/ DETOUR EXIT 50
Speed SPD SLIP COND POSSIBLE/ SLOW SPD	Speed	SPD	SLIP COND POSSIBLE/ SLOW SPD

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Standard Abbreviati	<u>ons</u> (cont.)	
<u>Word</u>	<u>Abbrev</u>	<u>Example</u>
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:

<u>Abbrev</u>	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	<u>Action</u>
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 Page 9 of 9

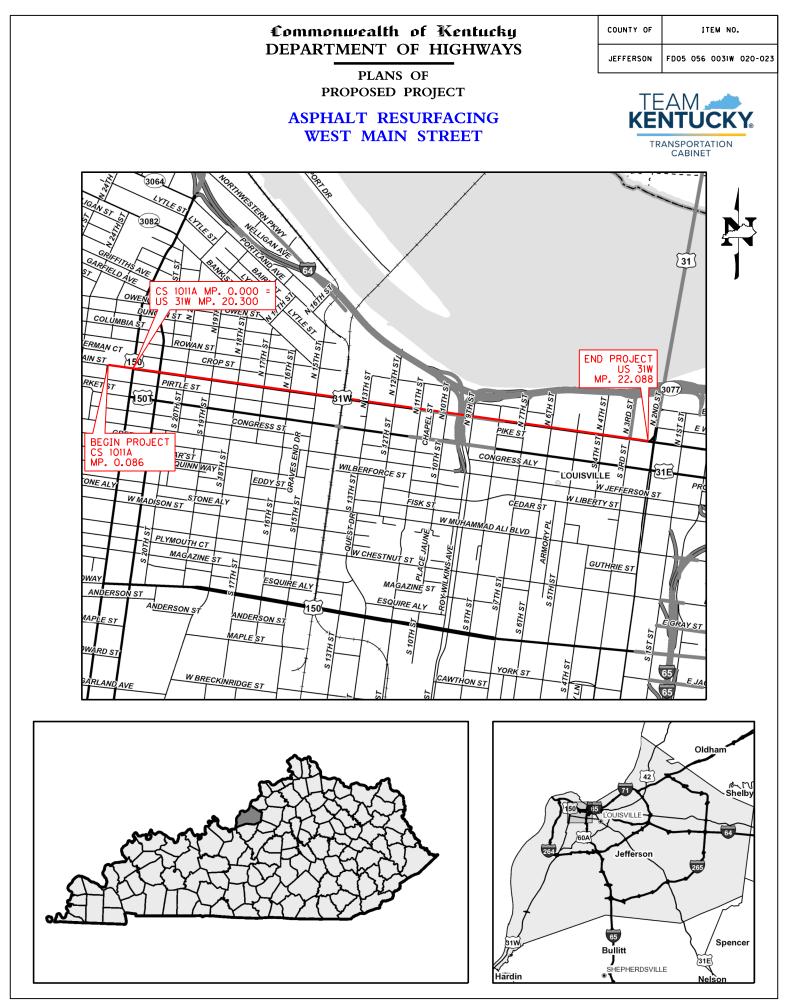
> TRAFFIC SLOWS TRUCK CROSSING TRUCKS ENTERING TOW TRUCK AHEAD **UNEVEN LANES** WATER ON ROAD WET PAINT

WORK ZONE XX MILES WORKERS AHEAD

Typical Messages (cont.) Reason/Problem FOG XX MILES FREEWAY CLOSED FRESH OIL HAZMAT SPILL ICE INCIDENT AHEAD LANES (NARROW, SHIFT, MERGE, ETC.) LEFT LANE CLOSED LEFT LANE NARROWS LEFT 2 LANES CLOSED LEFT SHOULDER CLOSED LOOSE GRAVEL MEDIAN WORK XX MILES MOVING WORK ZONE, WORKERS IN ROADWAY NEXT EXIT CLOSED NO OVERSIZED LOADS NO PASSING NO SHOULDER ONE LANE BRIDGE 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

Action

PASS TO RIGHT PREPARE TO STOP **REDUCE SPEED** SLOW SLOW DOWN STAY IN LANE STOP AHEAD STOP XX MILES **TUNE RADIO 1610 AM USE NN ROAD USE CENTER LANE USE DETOUR ROUTE** USE LEFT TURN LANE USE NEXT EXIT USE RIGHT LANE WATCH FOR FLAGGER



			COUNTY OF		PROJECT NO.
		GENERAL SUMMARY	JEFFERSON	FD05 (056 0031W 020-023
	ITEM	DESCRIPTION		UNIT	TOTAL PROJECT
	190	LEVELING & WEDGING PG64-22		TON	470
	388	CL3 ASPH SURF 0.38B PG64-22		TON	4,697
	2562	TEMPORARY SIGNS		SQFT	500
	2569	DEMOBILIZATION		LS	1
	2650	MAINTAIN & CONTROL TRAFFIC		LS	1
	2671	PORTABLE CHANGEABLE MESSAGE SIGN		EACH	2
	2676	MOBILIZATION FOR MILL & TEXT		LS	1
	2677	ASPHALT PAVE MILLING & TEXTURING		TON	4,697
	2720	SIDEWALK-4 IN CONCRETE		SQYD	10
	2775	ARROW PANEL		EACH	2
	6511	PAVE STRIPING-TEMP PAINT-6 IN		LF	2,474
	6542	PAVE STRIPING-THERMO-6 IN W		LF	54,953
	6543	PAVE STRIPING-THERMO-6 IN Y		LF	12,678
	6546	PAVE STRIPING-THERMO-12 IN W		LF	774
	6565	PAVE MARKING-THERMO X-WALK-6IN		LF	5,818
	6568	PAVE MARKING-THERMO STOP BAR-24IN		LF	1,521
	6569	PAVE MARKING-THERMO CROSS-HATCH		SQFT	5,393
	6573	PAVE MARKING-THERMO STR ARROW		EACH	30
	6574	PAVE MARKING-THERMO CURV ARROW		EACH	116
	6575	PAVE MARKING-THERMO COMB ARROW		EACH	11
	6576	PAVE MARKING-THERMO ONLY		EACH	10
	6610	INLAID PAVEMENT MARKER-MW		EACH	130
	6612	INLAID PAVEMENT MARKER-BY		EACH	183
	10020NS	FUEL ADJUSTMENT		DOLL	8,083
	10030NS	ASPHALT ADJUSTMENT		DOLL	20,303
	20782NS714	PAVE MARKING-THERMO BIKE		EACH	93
	21417ES717	PAVE MARK THERMO CONE CAP-SOLID YELLOW		SQFT	234
	22692NS714	PAVEMENT MARKING-THERMO LETTERS		EACH	46
	23158ES505	DETECTABLE WARNINGS	i	SQFT	25
	23261EC	PAVE MARKING-THERMO X-WALK-24IN	i	LF	3,705
	23928EC	PAVE MARK-THERMO "BUS" 8 FT		EACH	4
1	23974EC	BIKE PATH	i	SQYD	546
	24386EC	PAVE MARKING THERMO BIKE LANE ARROW	i	EACH	93
	24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING	1	TON	26.1
	26192EC	PAVE MARKING-THERMO SHARED LANE MARKING	1	EACH	3
	26228EC	ELECTRONIC DELIVERY MGMT SYSTEM	1	LS	1
			I		

① FOR PAYMENT OF THE GREEN BIKE LANE MARKING. PRODUCT TO BE PPG'S MMAX EXTENDED SEASON MARKINGS. SEE PRODUCT DATA SHEET ELSEWHERE IN PROPOSAL FOR MATERIAL AND APPLICATION GUIDANCE.

Milling & Surfacing Summary Jefferson County FD05 056 0031W 020-023

Mile	point	Plan Viev	w Station	Length	Avg Width	Area	Avg Depth	Quantity							
Begin	End	Begin	End	(LF)	(FT)	(SQYD)	(IN)	(TON)							
0.086 (CS 1011A)	0.000 (CS 1011A)	1067+30	1071+80	450	60	3,000	1.25	206							
20.300	20.739	1071+80	1095+20	2,340	60	15,600	1.25	1,073							
20.739	20.764	1095+20	1096+30	110	44	538	1.25	37							
20.764	21.023	1096+30	1110+00	1,370	60	9,133	1.25	628							
21.023	21.033	1110+00	1110+70	70	46	358	1.25	25							
21.033	21.458	1110+70	1133+30	2,260	60	15,067	1.25	1,036							
21.458	21.483	1133+30	1134+70	140	32	498	1.25	34							
21.483	21.510	1134+70	1136+00	130	48	693	1.25	48							
21.510	21.558	1136+00	1138+60	260	39	1,127	1.25	77							
21.558	21.583	1138+60	1139+70	110	32	391	1.25	27							
21.583	21.644	1139+70	1143+00	330	48	1,760	1.25	121							
21.644	21.671	1143+00	1144+40	140	32	498	1.25	34							
21.671	21.737	1144+40	1148+10	370	48	1,973	1.25	136							
21.737	21.746	1148+10	1148+40	30	32	107	1.25	7							
21.746	21.833	1148+40	1153+10	470	57	2,977	1.25	205							
21.833	21.853	1153+10	1153+70	60	40	267	1.25	18							
21.853	21.911	1153+70	1157+10	340	57	2,153	1.25	148							
21.911	21.924	1157+10	1157+70	60	44	293	1.25	20							
21.924	22.014	1157+70	1162+80	510	56	3,173	1.25	218							
22.014	22.050	1162+80	1164+40	160	59	1,049	1.25	72							
22.050	22.080	1164+40	1165+90	150	70	1,167	1.25	80							
22.080	22.088	1165+90	1166+30	40	49	218	1.25	15							
							Sub-Total	4,270							
				Addit	tional Milling			427							
			157+70 1162+80 510 56 3,173 1.25 218 162+80 1164+40 160 59 1,049 1.25 72 164+40 1165+90 150 70 1,167 1.25 80 165+90 1166+30 40 49 218 1.25 15 Sub-Total 4,270												

Notes:

1) Leveling & Wedging estimated at 10% of the Asphalt Surface quantity. The Engineer will determine the actual locations and lift thickness at the time of construction.

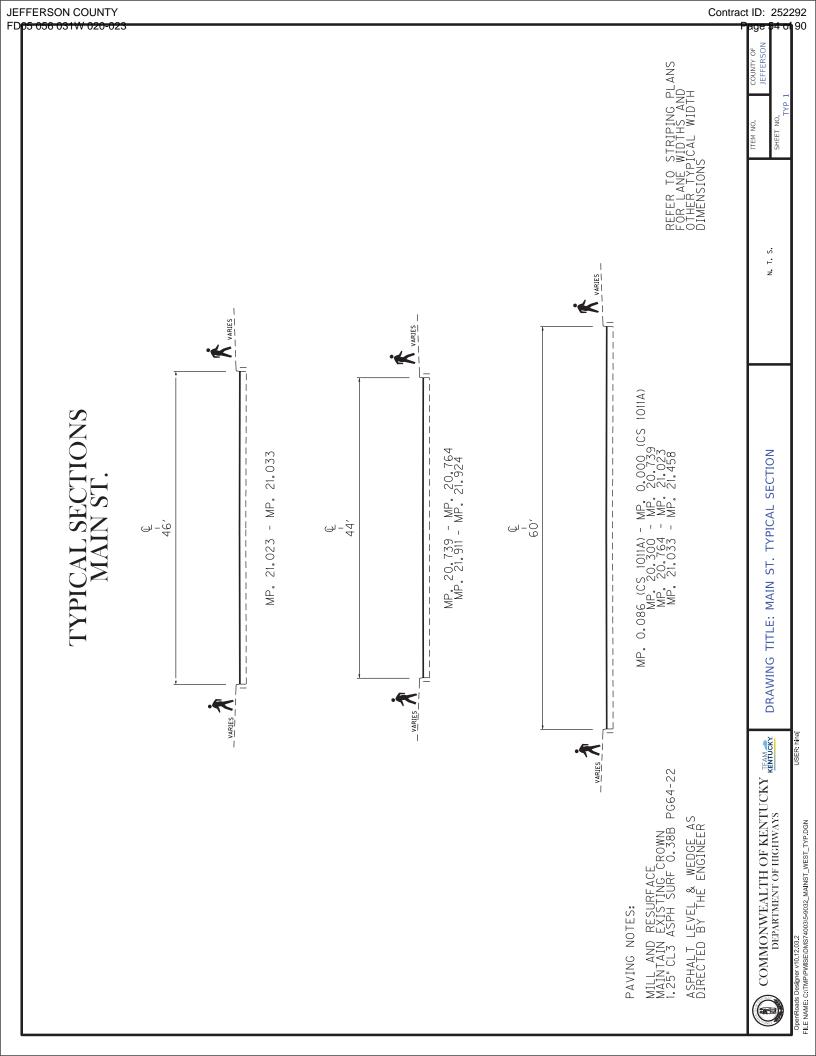
2) The quantity of Asphalt Material for Tack Non-Tracking was estimated based on 120% of the milling

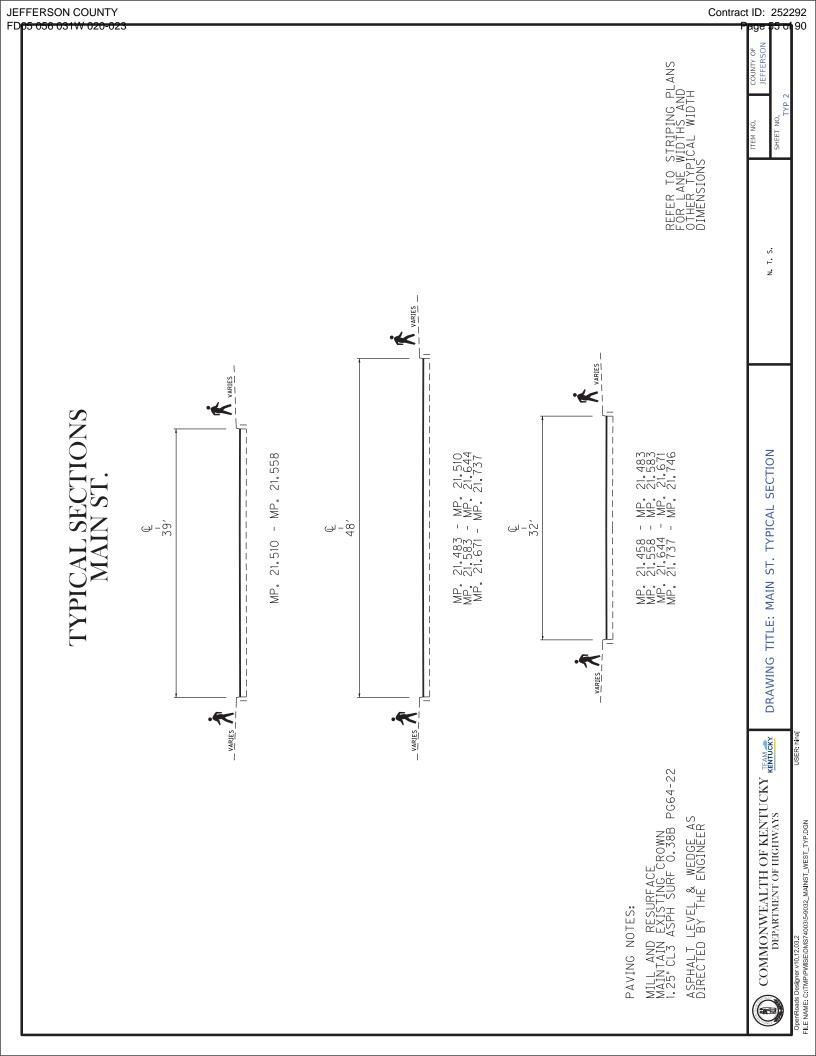
& resurfacing area to account for use in leveling & wedging and final surfacing.

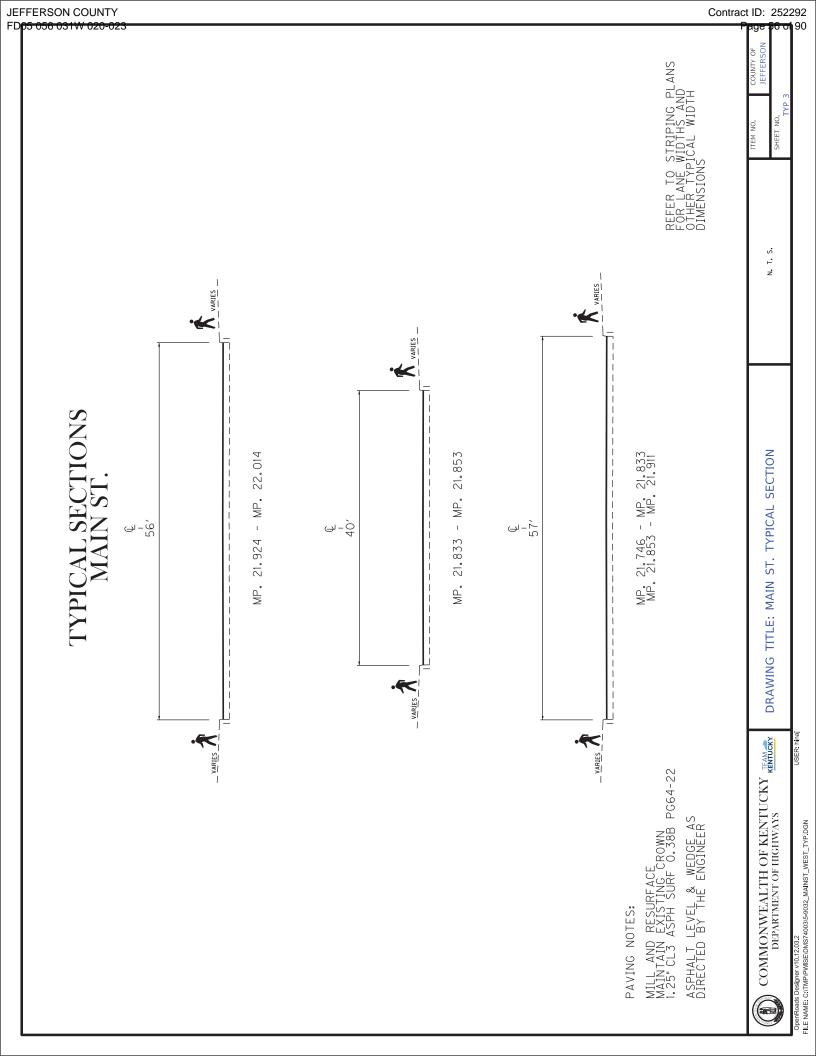
JEFFERSON COUNTY - US 31W (MAIN ST.) SIDEWALK RAMP AND DETECTABLE WARNING SUMMARY FD05 056 0031W 020-023

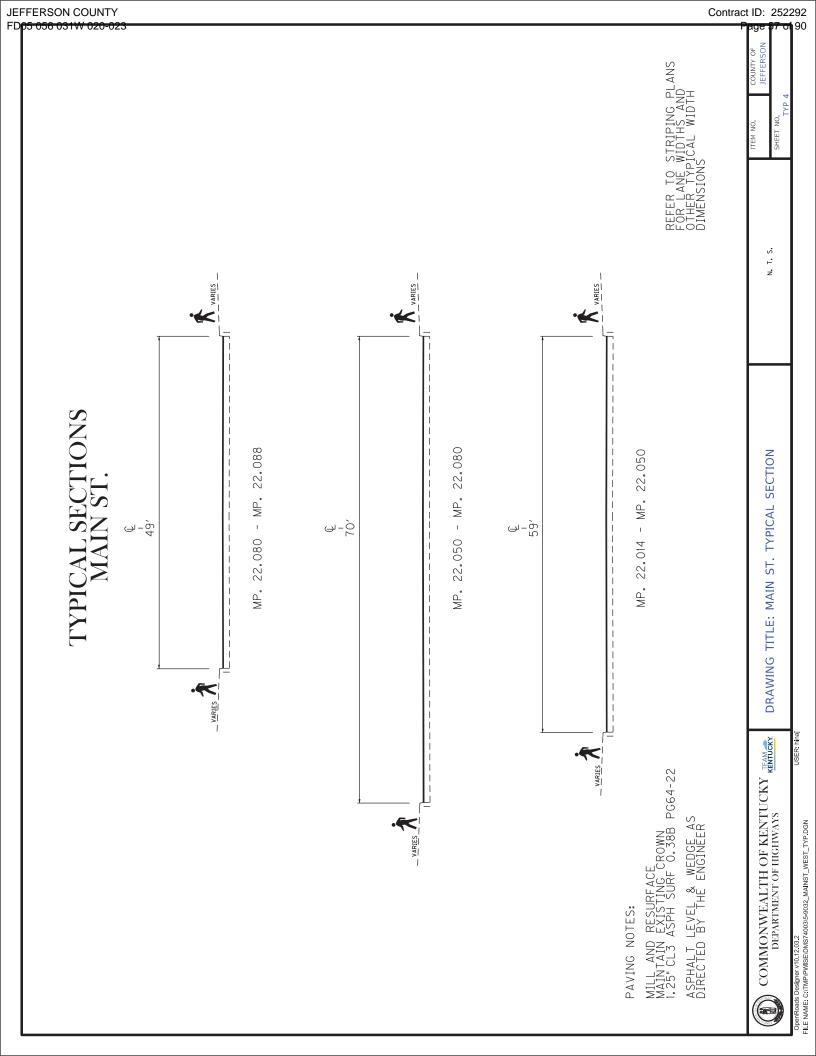
MP	INTERSECTION	S	IDEWALK F	RAMP	DETECTABL	E WARNING	NOTES
		TYPE	A	REA	QUA	YTITY	
			NEW	RETROFIT	NEW	RETROFIT	
			SQYD	SQYD	SQFT	SQFT	
20.572	19TH St.	3		10	25		NW CORNER
TOTAL			0	10	25	0	-

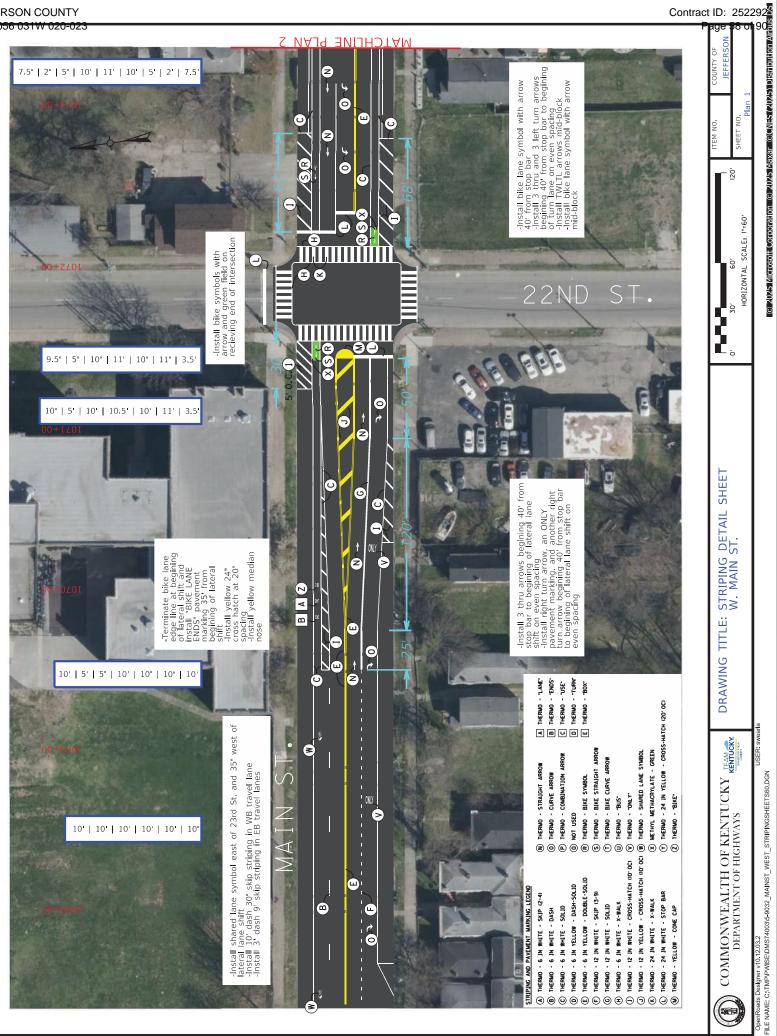
				Τ	Τ	Τ	Γ							Т	Τ															Τ							Τ	Τ	Γ					Τ	Т	Т	٦
NOTES				BIKE LANE ENDS																									BIKE LANE ENDS	IISE TURN ROX	BIKE LANE ENDS																
LETTERS	EA			12																									12	10	12																46
"ONLY"	EA			,	~									-		-		1											•	v										7		1				T	-
"BUS"	EA													-		-		٢																								1					4
GREEN	SY			1	8	22		22		22		22		44	18	33	31	22					52		22		22	1	30	9		4		8	19	4	20	19		31		20	7	33	2	18	546
SHARED	EA	-	-																										-	-																	~
(E APPOW	EA					4	5	4	2	4	2	4	2	22	-	5	7	4		2		2	4	2	4	2	4	5	•	~			÷		8	-	ء ר	- 2	-	7	۲	2	2	6	-	7	93
BIKE SVMROL AI	EA			,		4	2	4	2	4	2	4	2	22	-	2	2	4		2		2	4	2	4	2	4	5	•	~			-		7	- 0	× +	- 6	-	2	-	2	2	2	-	7	93
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ARROWS				'	2	4										4		4											•	•								~		e		3		-		2	30
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CONE CAP	SF -			1	26	99	8									56		56																													234
CROSS HATCHING w l v	- s			:	144	200										126		157																													627
	SF				300	148		117		155	55	138	38			134	32	57			187	40	149	49	113	75	109	197	120	420					332	111	305	22	156	220	153	263	24	205	131	209	4.766
STOP BARS					86	98		34		32		105		22		94		96					106		110		32		120	67					61		60	63		80		79		113		104	1.521
X-WALKS					460	420																							470	4/0					214		. 47	270		380		300		460		490	3.705
X-WALKS	LF				400	390		143		161		369		97		384		384					379		389		146		007	400					214		2/4	252		329		269		417		421	5.818
INTERSECTION					ZZND ST.	21ST ST.		20TH ST.		19TH ST.		18TH ST.		17TH ST.		16TH ST.		15TH ST.					13TH ST.		12TH ST.		11TH ST.		10TU ST	.16 1101					9TH ST.		81H 31.	TTH ST.		6TH ST.		5TH ST.		4TH ST.		3RD ST.	
STA		1067+50	1069+10	1069+90	1071+85	1076+60	1079+05	1081+45	1083+85	1086+20	1088+75	1091+00	1093+50	1095+80	1098+30	1100+60	1103+00	1105+40	1108+00	1108+80	1110+30	1111+95	1115+00	1117+00	1119+80	1122+30	1124+65	1127+00	1128+15	1130+30	1131+10	1131+40	1131+90	1133+30	1134+20	1136+90	1139+00	1143+80	1146+25	1148+65	1150+80	1153+40	1155+70	1158+15	1160+75	1163+05	TOTAL



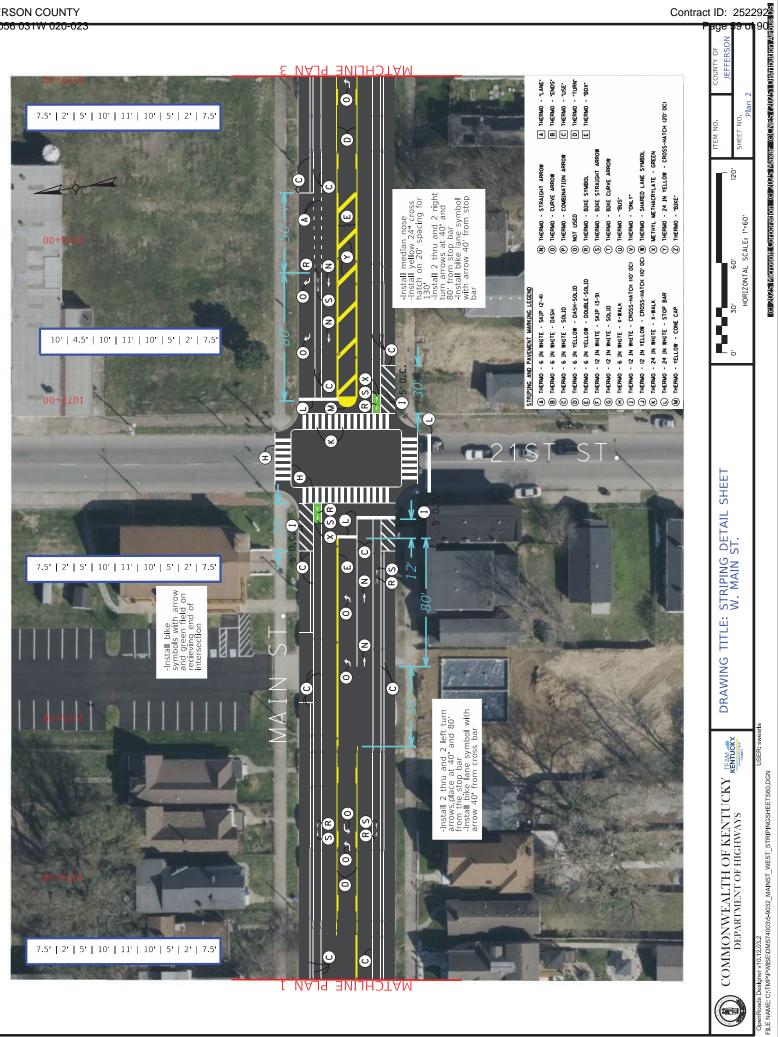


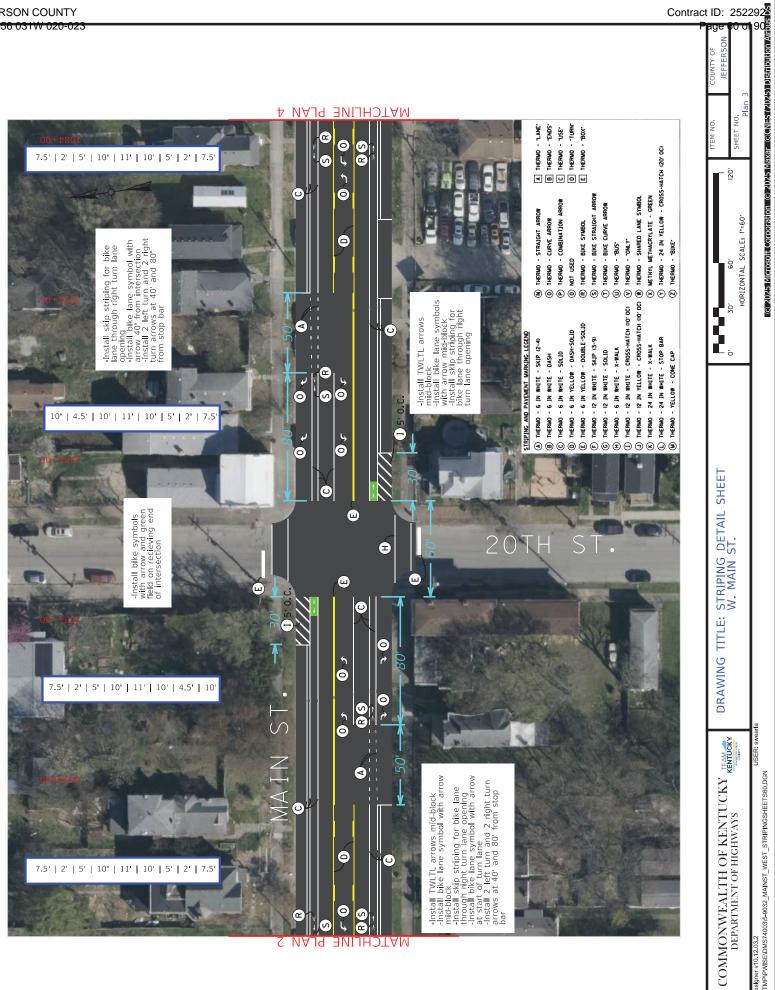


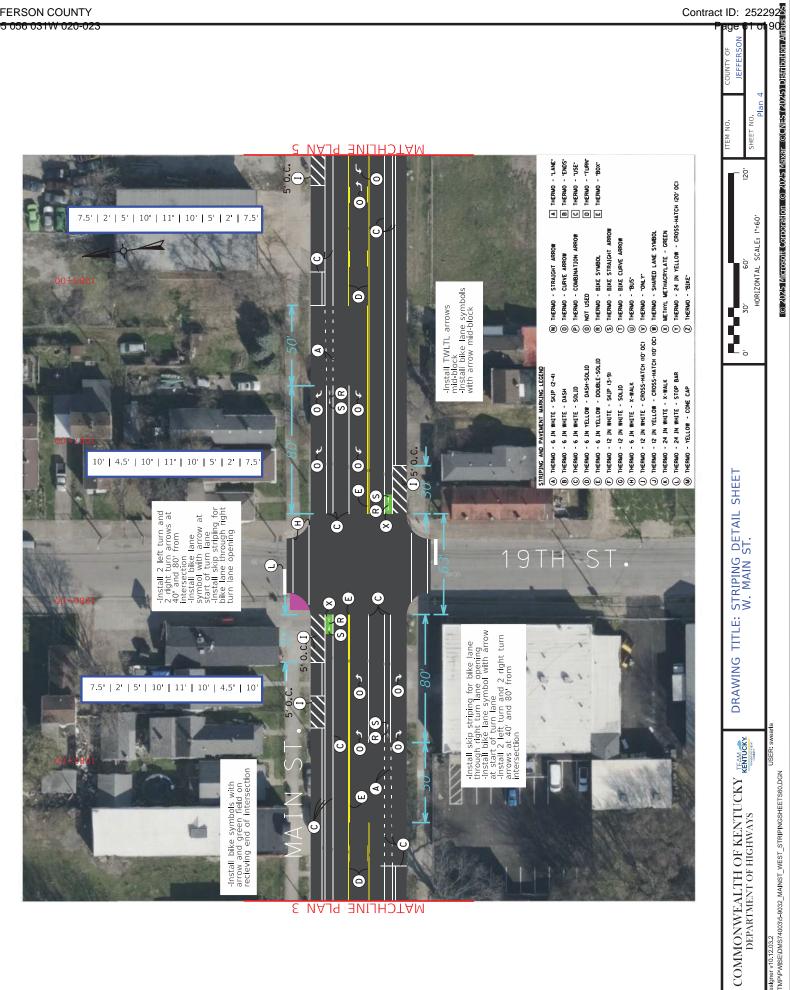


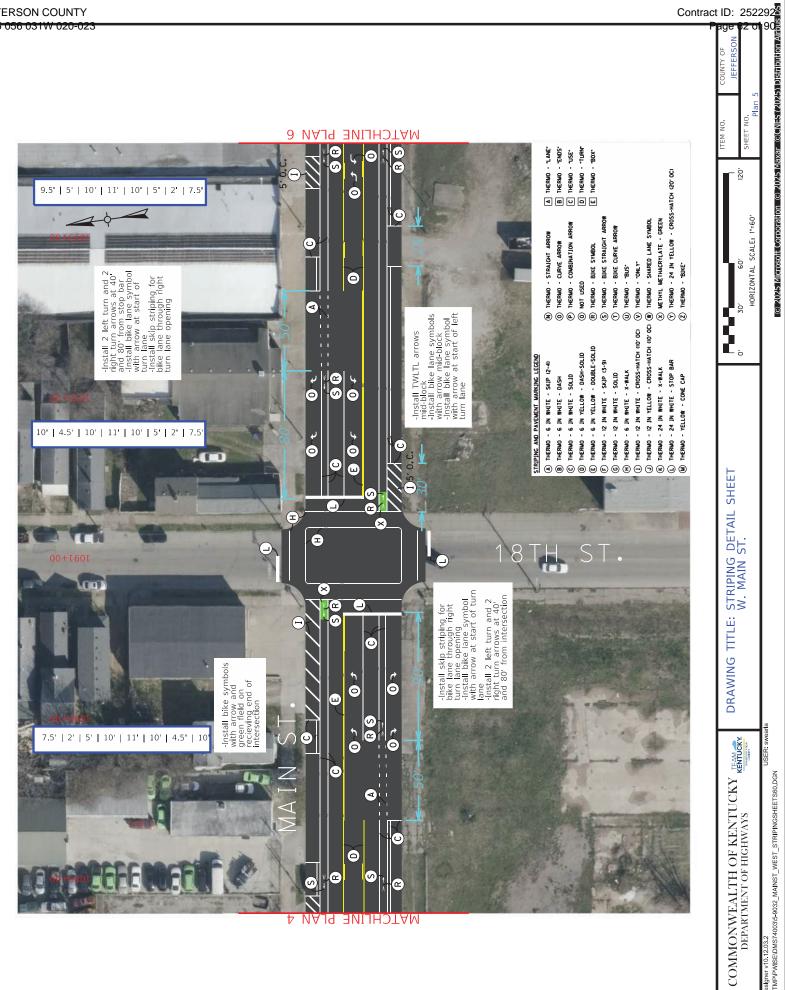


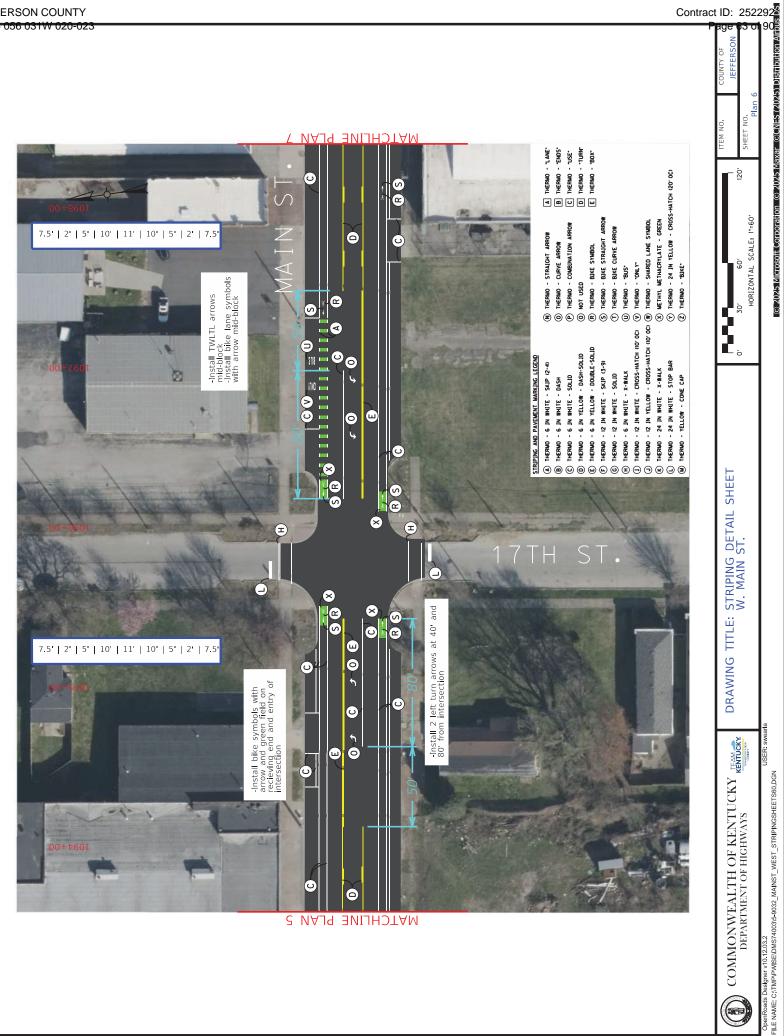
JEFFERSON COUNTY

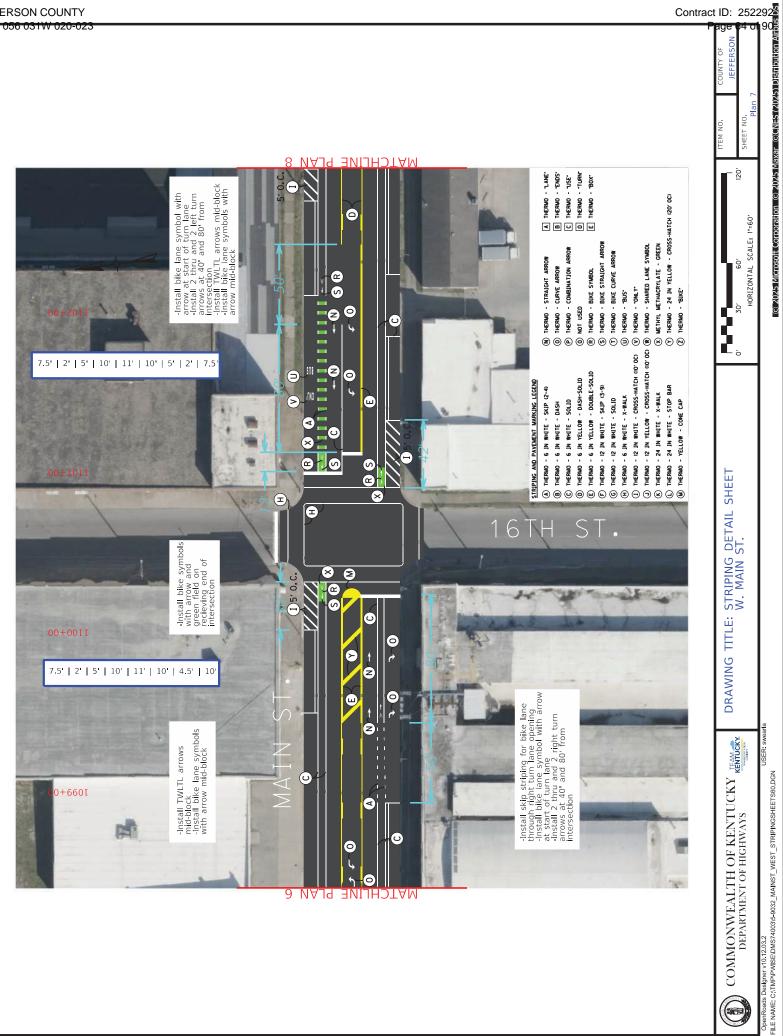




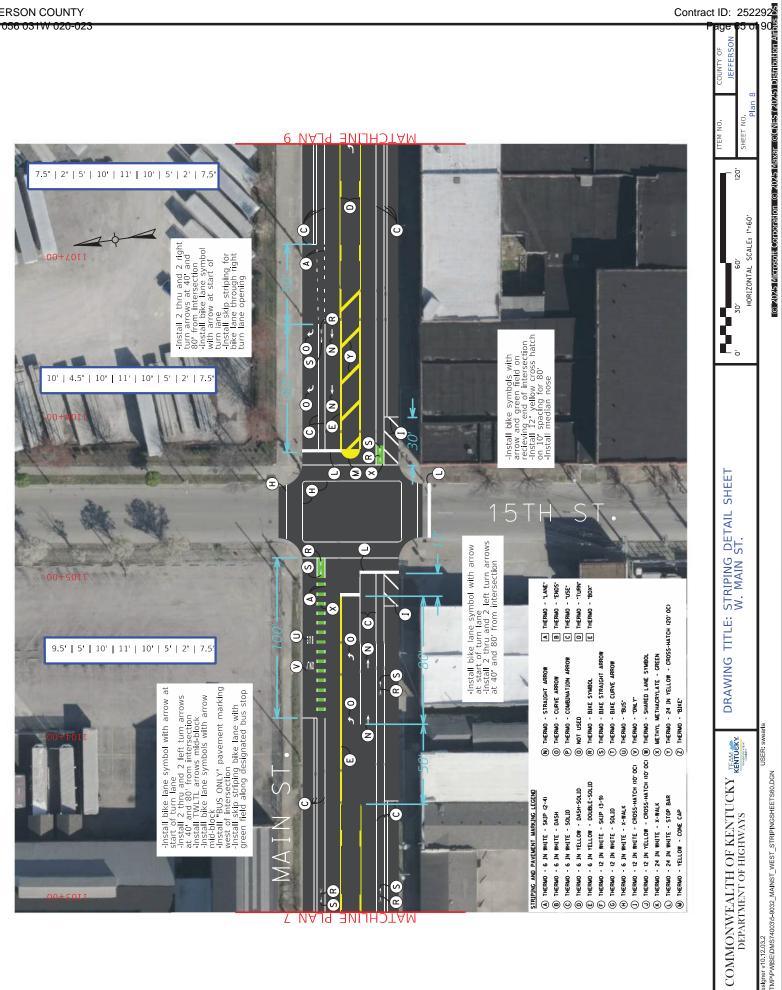


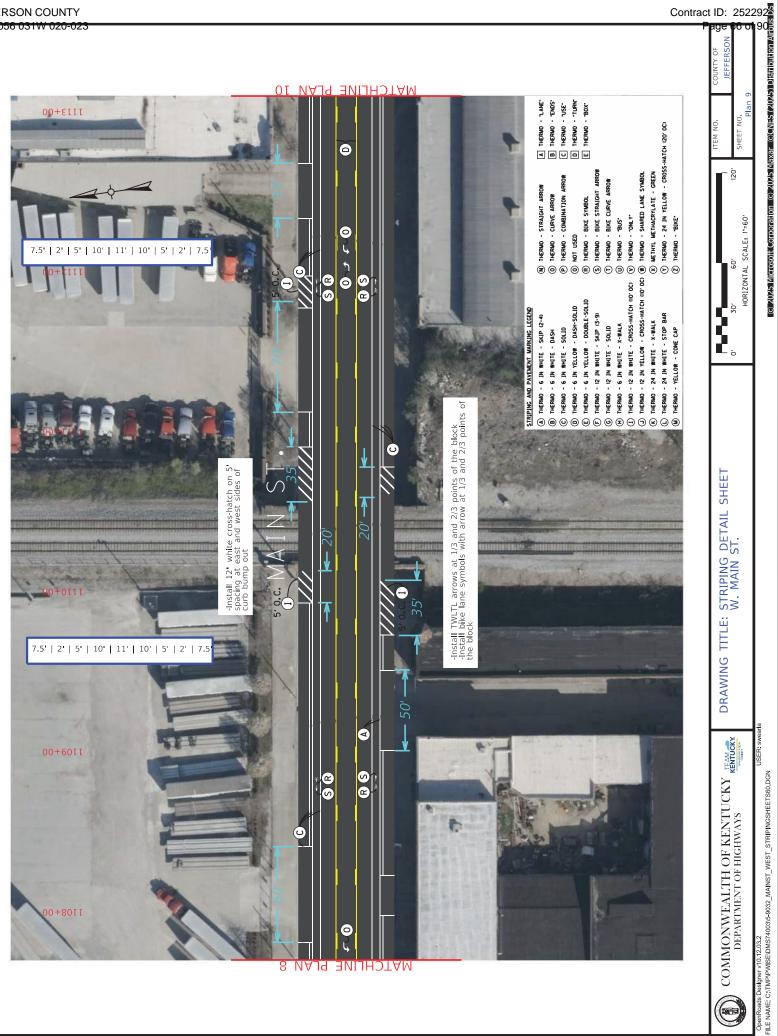


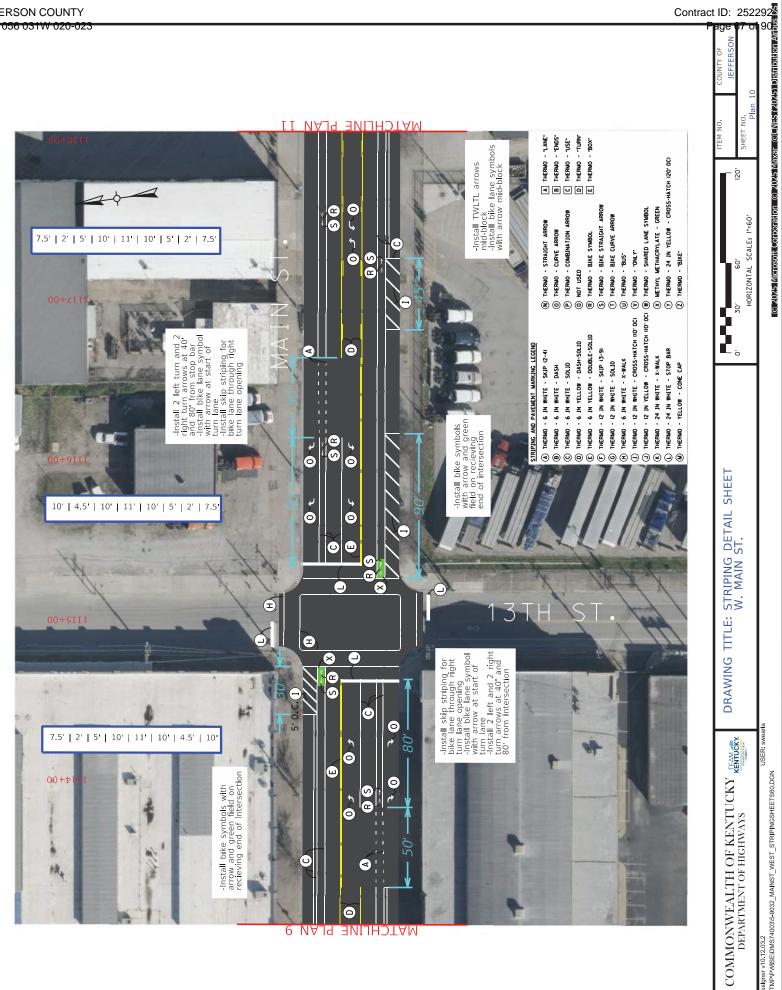


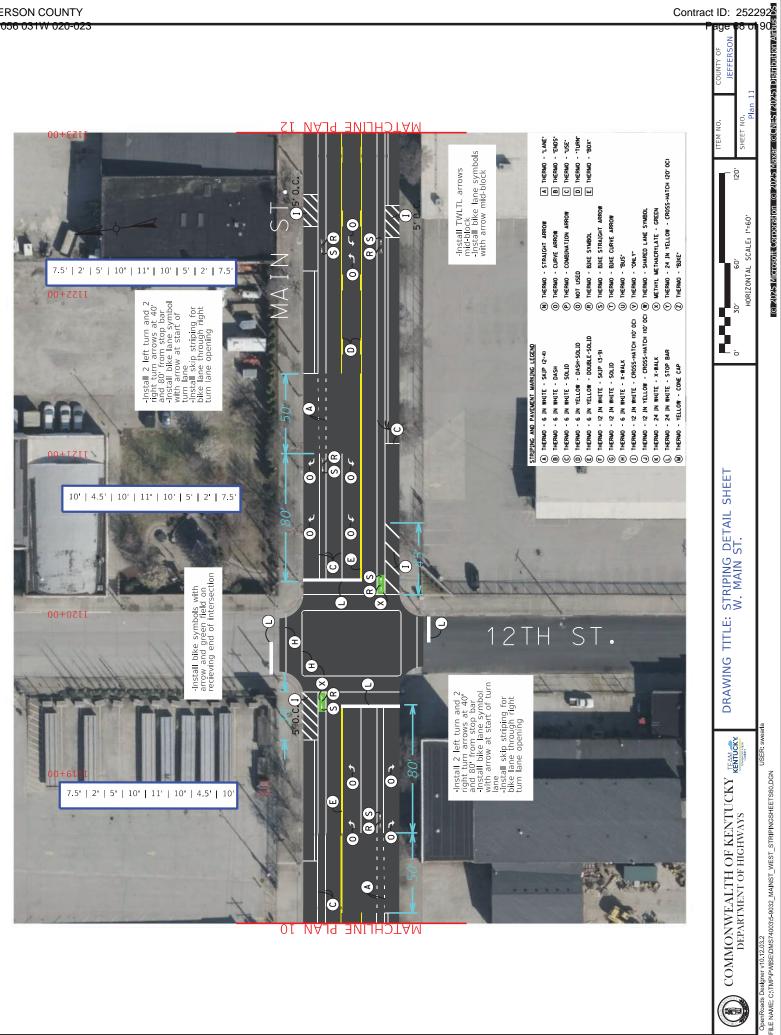


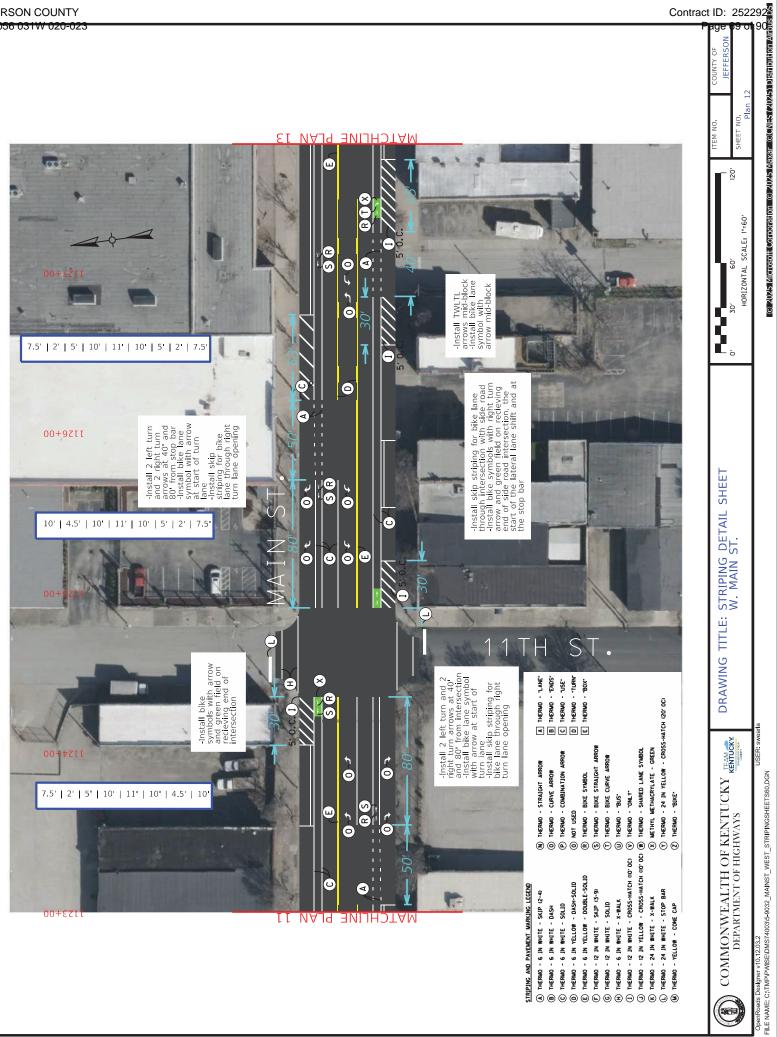
DpenRoads Designer v10.12.03.2



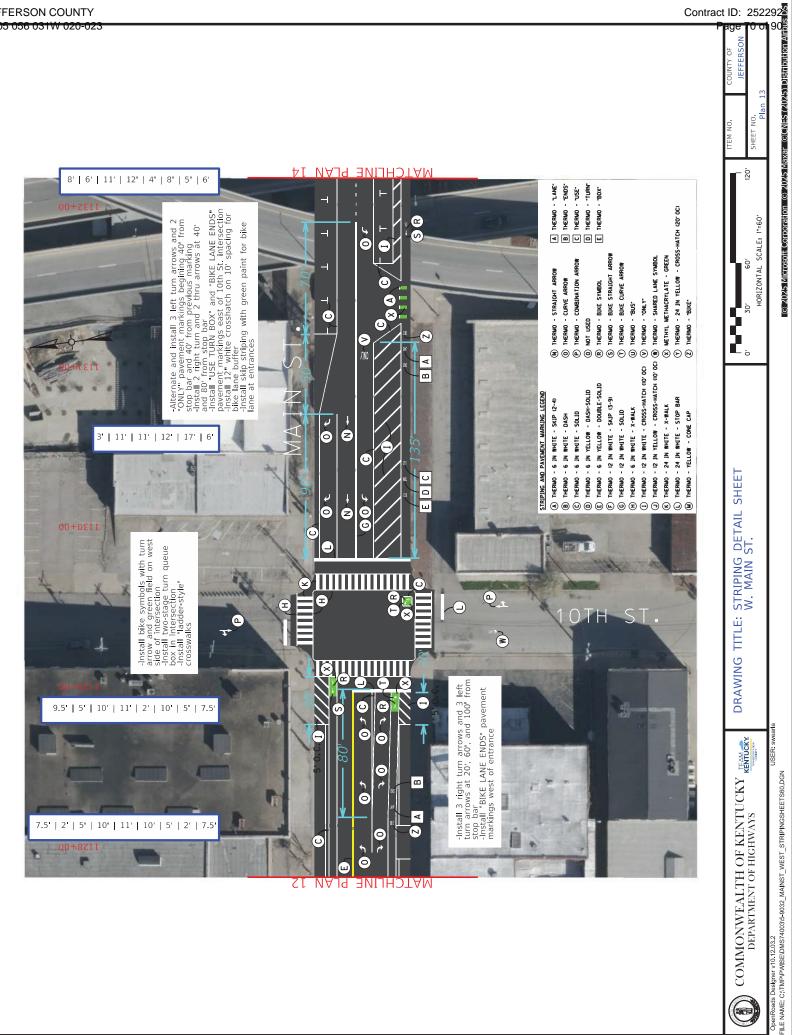


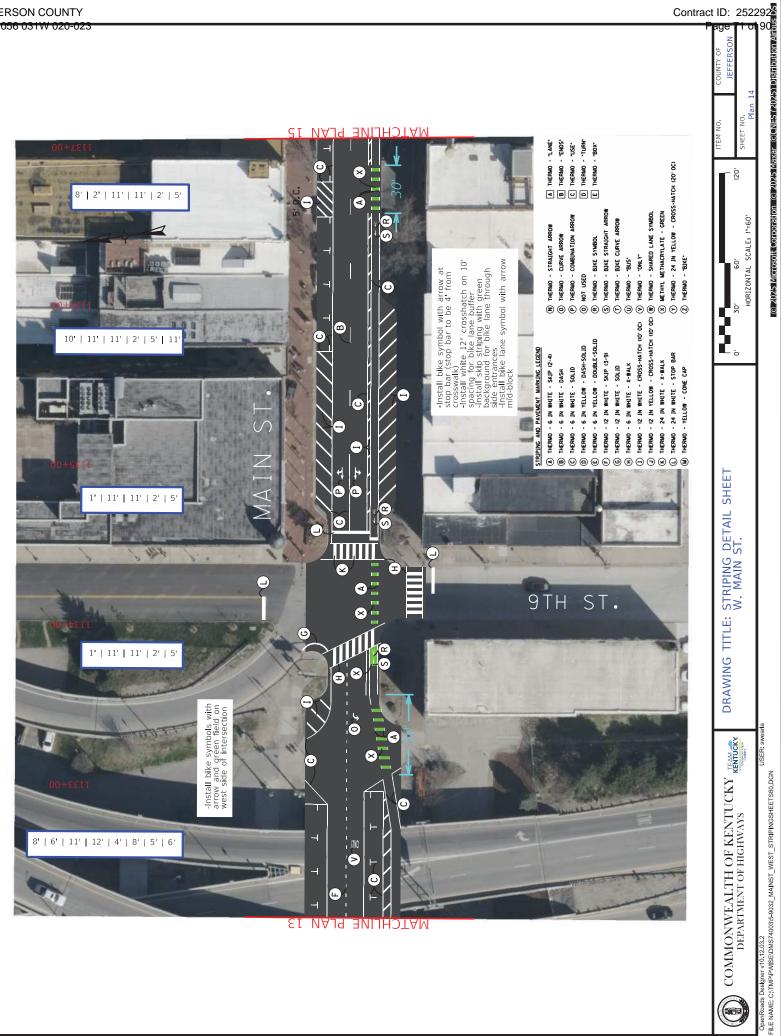


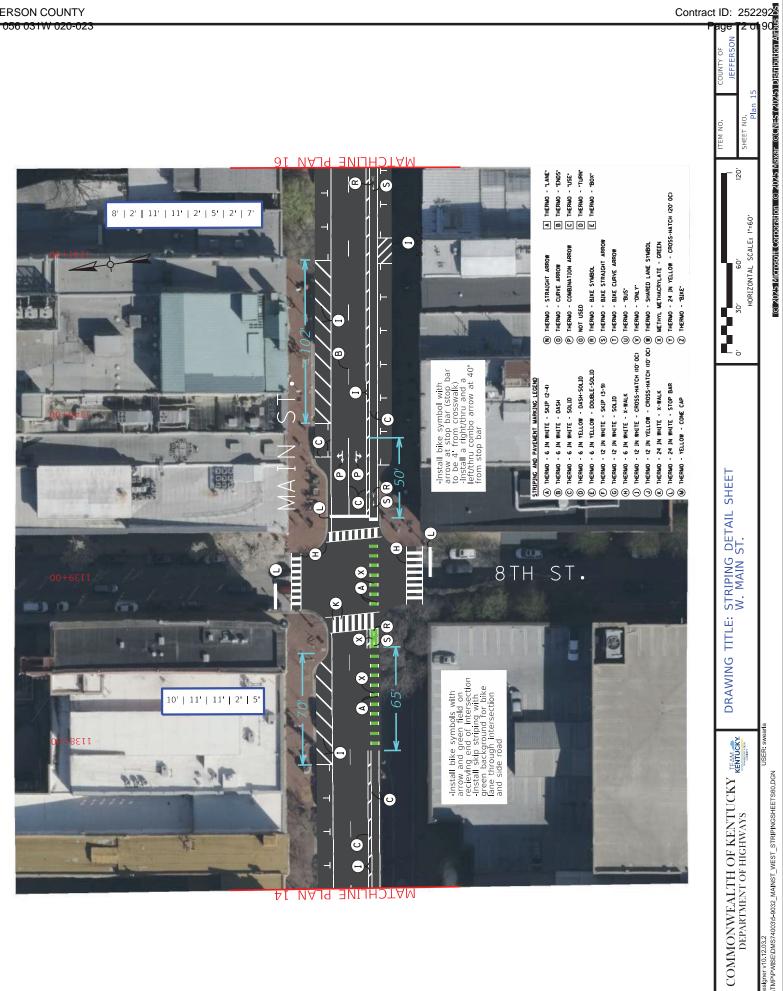




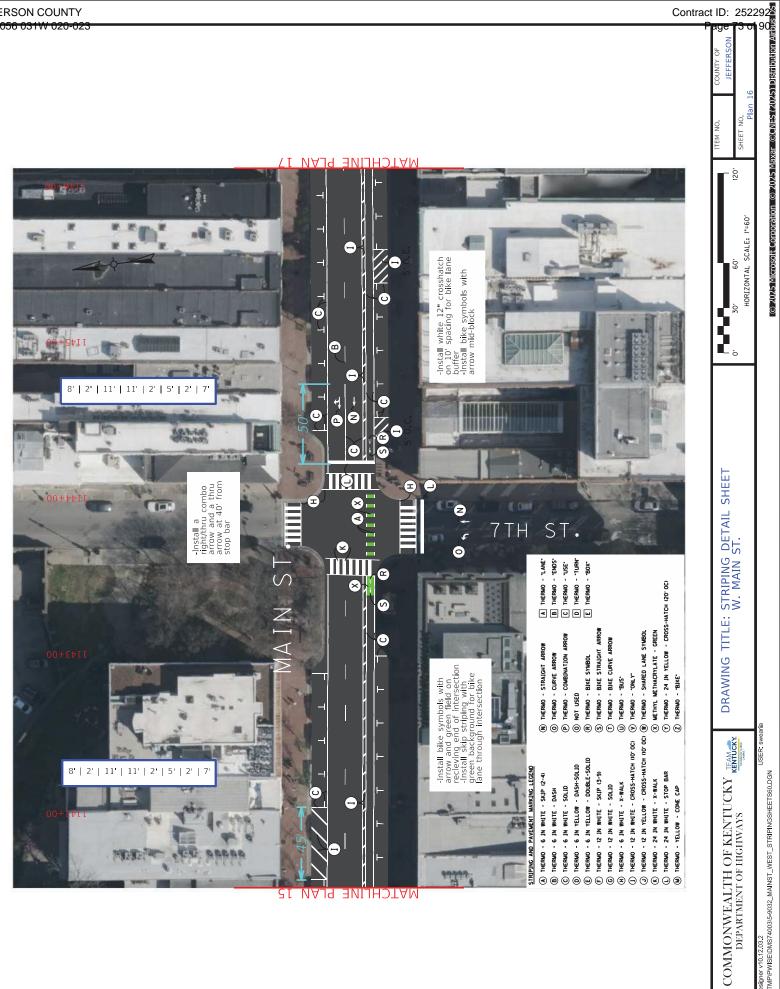
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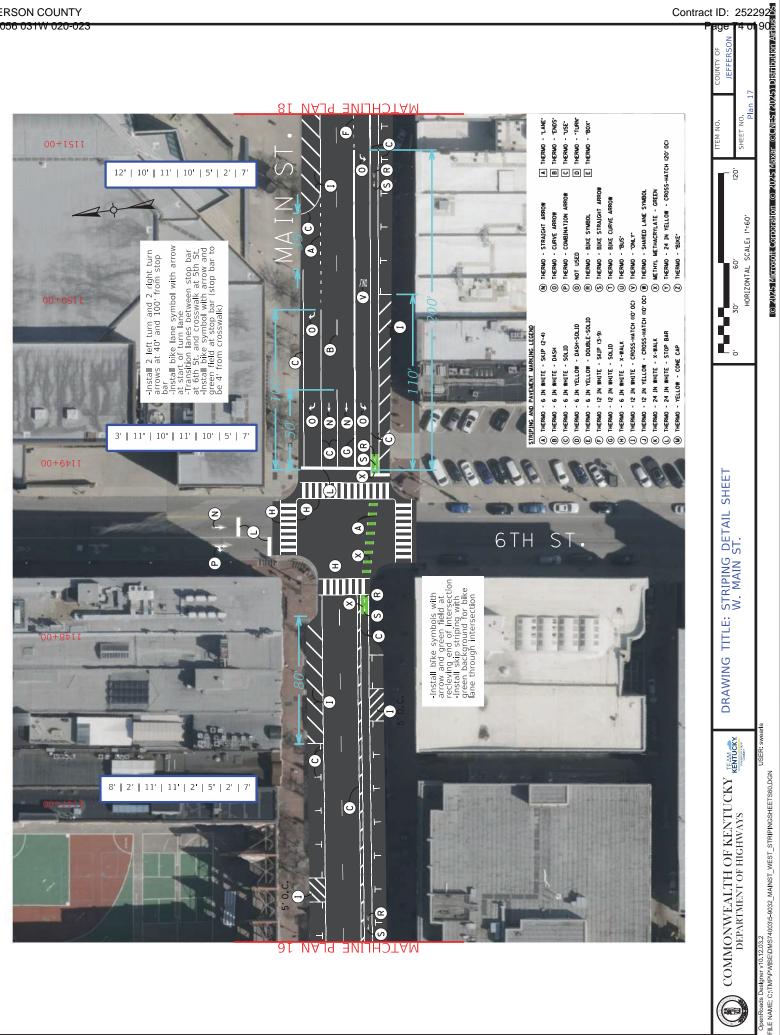


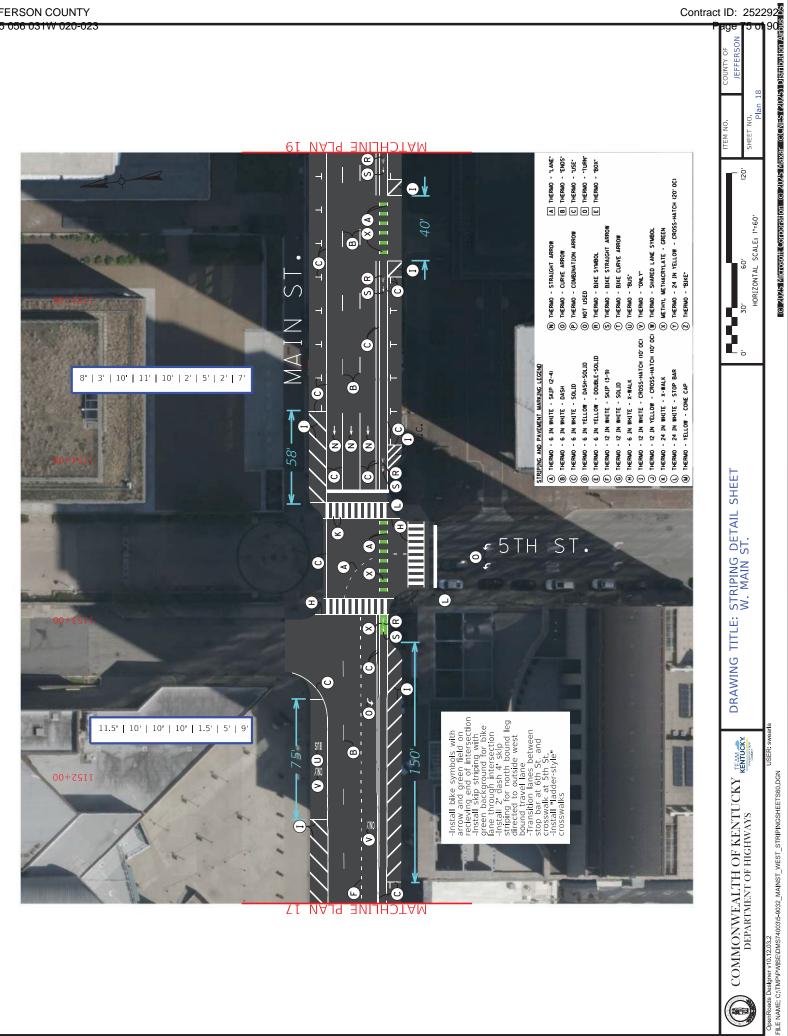


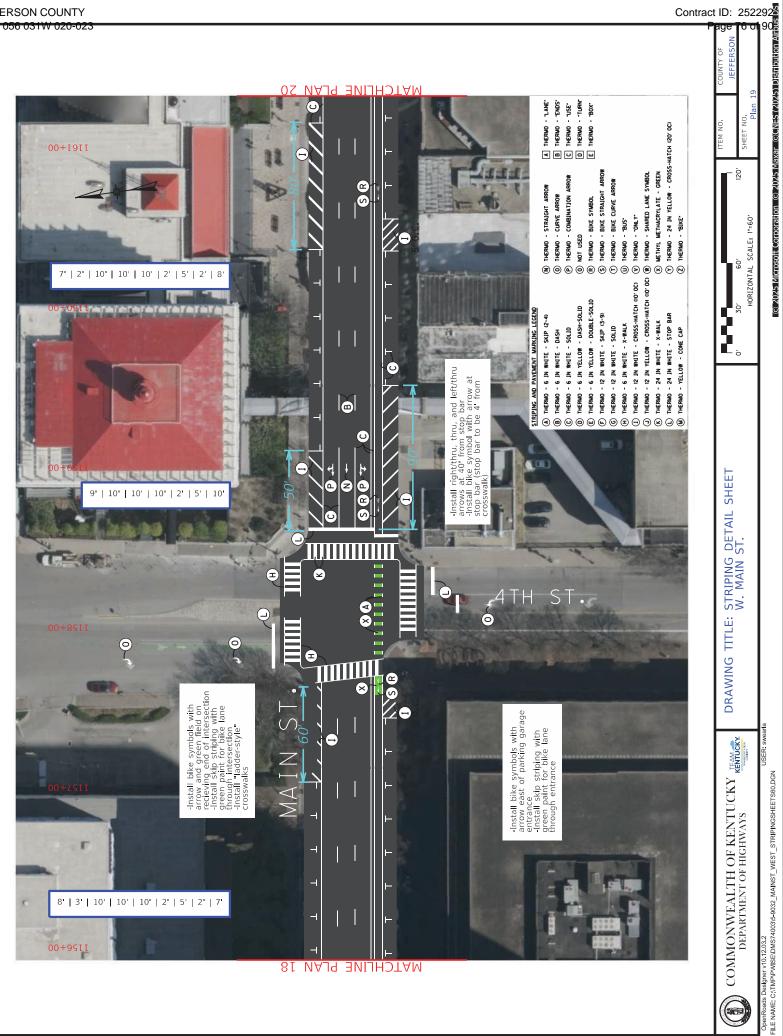


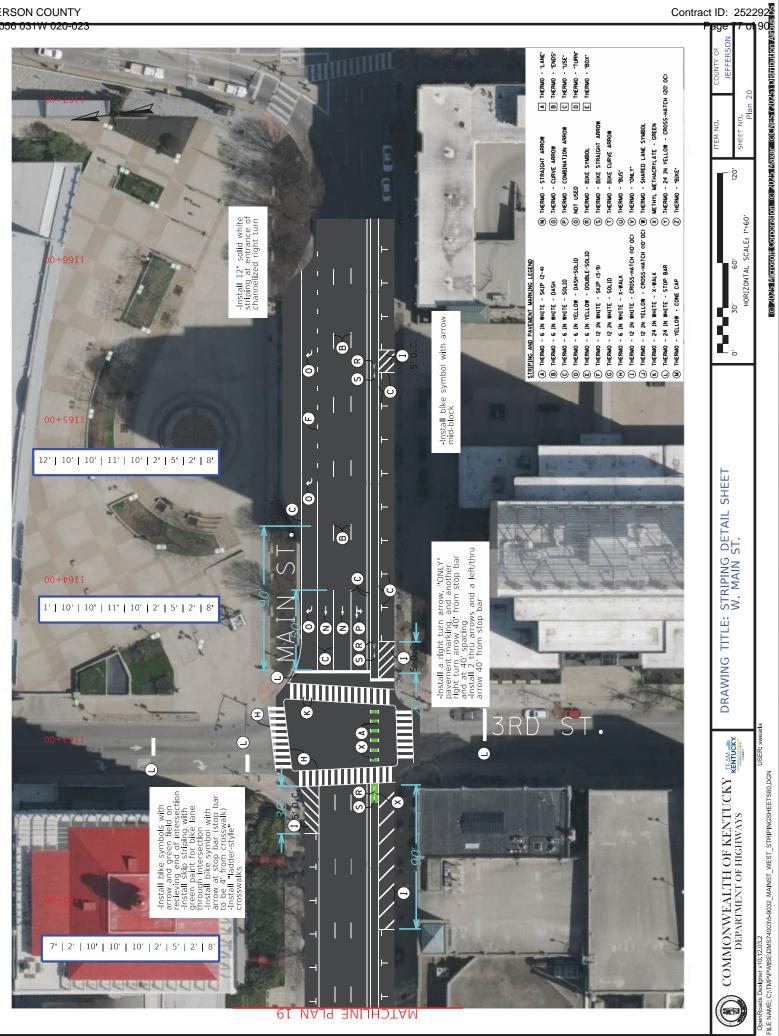
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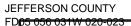


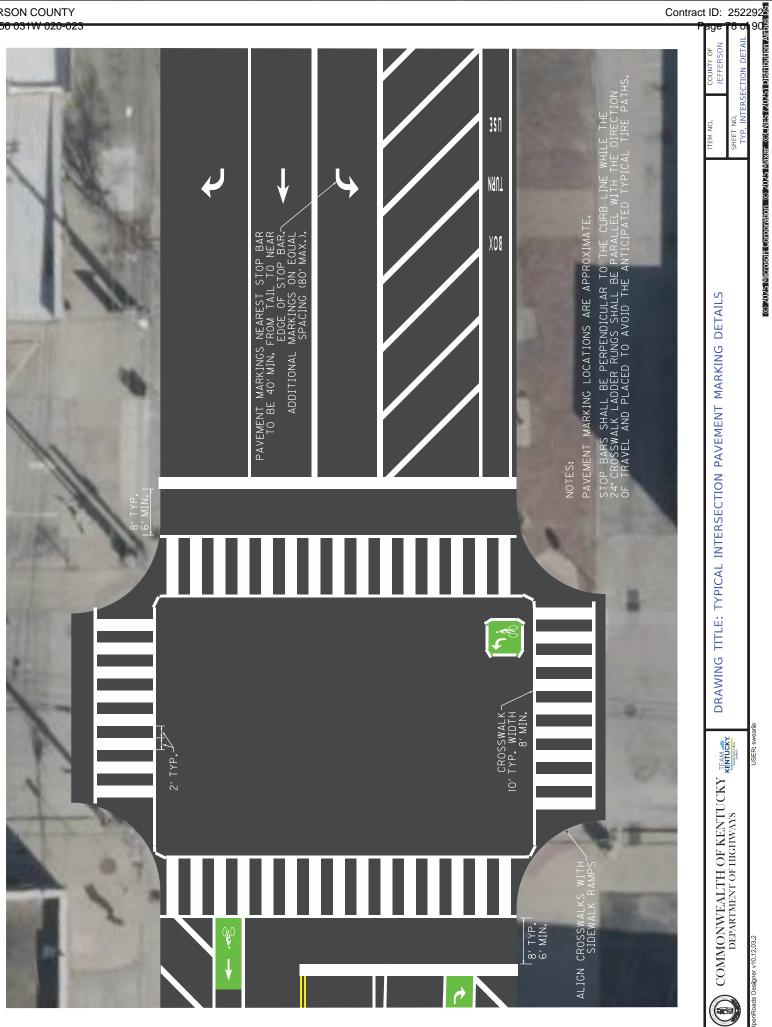




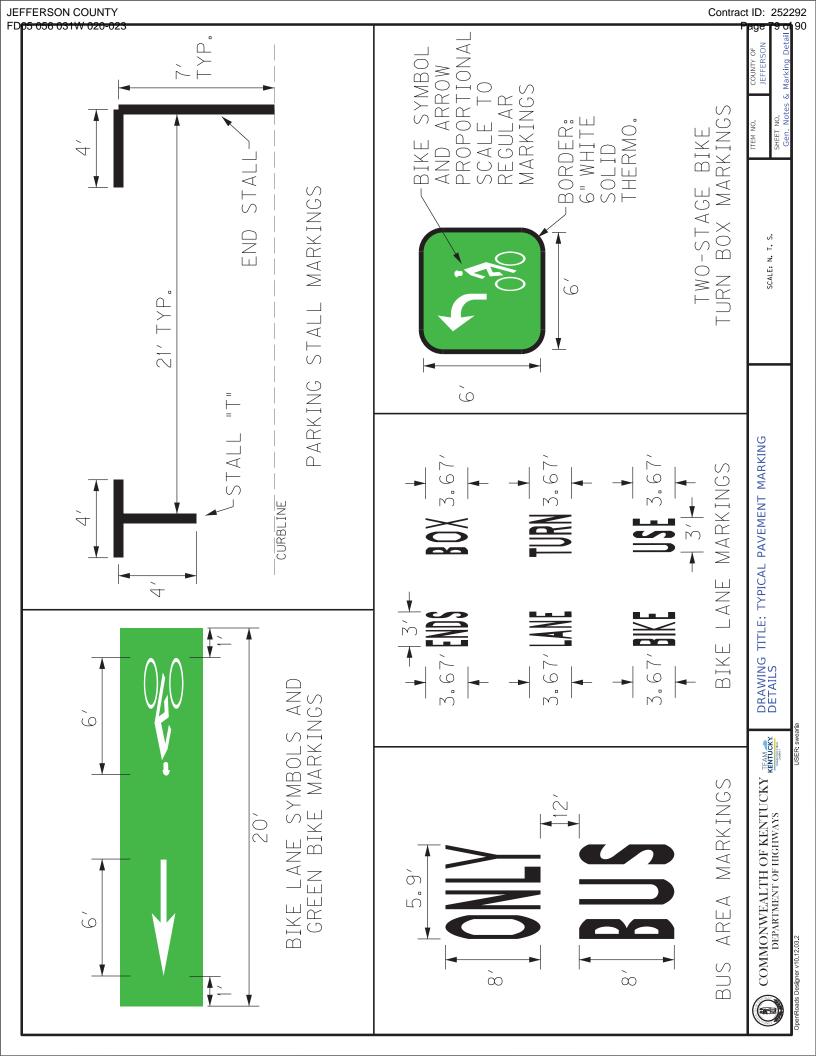








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PART II

SPECIFICATIONS AND STANDARD DRAWINGS

STANDARD SPECIFICATIONS

Any reference in the plans or proposal to previous editions of the *Standard Specifications* for Road and Bridge Construction and Standard Drawings are superseded by Standard Specifications for Road and Bridge Construction, Edition of 2019 and Standard Drawings, Edition of 2020.

SUPPLEMENTAL SPECIFICATIONS

The contractor shall use the Supplemental Specifications that are effective at the time of letting. The Supplemental Specifications can be found at the following link: http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx

2020 STANDARD DRAWINGS THAT APPLY

ROADWAY ~ *GENERAL* ~

MISCELLANEOUS STANDARDS

DETECTABLE WARNINGS R	≀GX-	04(0-0	0	3
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~ PAVEMENT ~

MEDIANS, CURBS, APPROACHES, ENTRANCES, ETC.

SIDEWALK RAMPS	RPM-170-09
SIDEWALK RAMP WITH HANDRAIL	RPM-172-07

TRAFFIC

~ PERMANENT ~

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INLAID PAVEMENT MARKER ARRANGEMENTS MULTI-LANE ROADWAYS	Sepia 006
INLAID PAVEMENT MARKER ARRANGEMENTS TWO-WAY, LEFT-TURN LANE	Sepia 015
TYPICAL MARKINGS AT SIGNALIZED INTERSECTIONS	TPM-203
TYPICAL MARKINGS FOR TURN LANES PAGE 1	TPM-206
TYPICAL MARKINGS FOR TURN LANES PAGE 2	TPM-207

~ TEMPORARY ~

TRAFFIC CONTROL

LANE CLOSURE MULTI-LANE HIGHWAY CASE I	TTC-115-04
DOUBLE LANE CLOSURE	TTC-125-04
SHOULDER CLOSURE	TTC-135-03

STRIPING OPERATIONS

MOBILE OPERATION FOR PAINT STRIPING CASE II	TTS-105-02
MOBILE OPERATION FOR PAINT STRIPING CASE IV	TTS-115-02
MOBILE OPERATION FOR DURABLE STRIPING CASE I	TTS-120-02
MOBILE OPERATION FOR DURABLE STRIPING CASE II	TTS-125-02
MOBILE OPERATION FOR DURABLE STRIPING CASE IV	TTS-135-02

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

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

I. Application

II. Nondiscrimination of Employees (KRS 344)

I. APPLICATION

1. These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work or by subcontract. The contractor's organization shall be construed to include only workmen employed and paid directly by the contractor and equipment owned or rented by him, with or without operators.

2. The contractor shall insert in each of his subcontracts all of the stipulations contained in these Required Provisions and such other stipulations as may be required.

3. A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

II. NONDISCRIMINATION OF EMPLOYEES

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

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

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

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment. 3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

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

Revised: January 25, 2017

EXECUTIVE BRANCH CODE OF ETHICS

The Executive Branch Code of Ethics created by Kentucky Revised Statutes (KRS) Chapter 11A, effective July 14, 1992, establishes the ethical standards that govern the conduct of all executive branch employees. The Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

A present or former public servant listed in KRS 11A.010(9)(a) to (g) shall not, within one (1) year following termination of his or her office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of one (1) year, he or she personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his or her tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

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

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

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

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

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

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 1025 Capital Center Drive, Suite 105, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: March 11, 2025

Kentucky Equal Employment Opportunity Act of 1978

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

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

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

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

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

	\$7.25 PER HOUR
	BEGINNING JULY 24, 2009
OVERTIME PAY	At least $1\frac{1}{2}$ times your regular rate of pay for all hours worked over 40 in a workweek.
CHILD LABOR	An employee must be at least 16 years old to work in most non-farm jobs and at least 18 to work in non-farm jobs declared hazardous by the Secretary of Labor.
	Youths 14 and 15 years old may work outside school hours in various non-manufactur- ing, non-mining, non-hazardous jobs under the following conditions:
	 No more than 3 hours on a school day or 18 hours in a school week; 8 hours on a non-school day or 40 hours in a non-school week.
	Also, work may not begin before 7 a.m. or end after 7 p.m. , except from June 1 through Labor Day, when evening hours are extended to 9 p.m. Different rules apply in agricultural employment.
TIP CREDIT	Employers of "tipped employees" must pay a cash wage of at least \$2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee's tips combined with the employer's cash wage of at least \$2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.
ENFORCEMENT	The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.
	Employers may be assessed civil money penalties of up to \$1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to \$11,000 for each employee who is the subject of a violation of the Act's child labor provisions. In addition, a civil money penalty of up to \$50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to \$100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.
ADDITIONAL INFORMATION	 Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions. Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands. Some state laws provide greater employee protections; employers must comply with both The law requires employers to display this poster where employees can readily see it. Employees under 20 years of age may be paid \$4.25 per hour during their first 90 consecutive calendar days of employment with an employer. Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.

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

PART IV

BID ITEMS

252292

PROPOSAL BID ITEMS

Page 1 of 2

Report Date 6/18/25

252292

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00190		LEVELING & WEDGING PG64-22	470.00	TON		\$	
0020	00388		CL3 ASPH SURF 0.38B PG64-22	4,697.00	TON		\$	
0030	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		\$	
0040	02677		ASPHALT PAVE MILLING & TEXTURING	4,697.00	TON		\$	
0050	24970EC		ASPHALT MATERIAL FOR TACK NON- TRACKING	26.00	TON		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0060	02650	MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0070	02671	PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		\$	
0080	02720	SIDEWALK-4 IN CONCRETE	10.00	SQYD		\$	
0090	02775	ARROW PANEL	2.00	EACH		\$	
0100	06511	PAVE STRIPING-TEMP PAINT-6 IN	2,474.00	LF		\$	
0110	06542	PAVE STRIPING-THERMO-6 IN W	54,953.00	LF		\$	
0120	06543	PAVE STRIPING-THERMO-6 IN Y	12,678.00	LF		\$	
0130	06546	PAVE STRIPING-THERMO-12 IN W	774.00	LF		\$	
0140	06565	PAVE MARKING-THERMO X-WALK-6 IN	5,818.00	LF		\$	
0150	06568	PAVE MARKING-THERMO STOP BAR-24IN	1,521.00	LF		\$	
0160	06569	PAVE MARKING-THERMO CROSS-HATCH	5,393.00	SQFT		\$	
0170	06573	PAVE MARKING-THERMO STR ARROW	30.00	EACH		\$	
0180	06574	PAVE MARKING-THERMO CURV ARROW	116.00	EACH		\$	
0190	06575	PAVE MARKING-THERMO COMB ARROW	11.00	EACH		\$	
0200	06576	PAVE MARKING-THERMO ONLY	10.00	EACH		\$	
0210	06610	INLAID PAVEMENT MARKER-MW	130.00	EACH		\$	
0220	06612	INLAID PAVEMENT MARKER-BY	183.00	EACH		\$	
0230	10020NS	FUEL ADJUSTMENT	8,083.00	DOLL	\$1.00	\$	\$8,083.00
0240	10030NS	ASPHALT ADJUSTMENT	20,303.00	DOLL	\$1.00	\$	\$20,303.00
0250	20782NS714	PAVE MARKING THERMO-BIKE	93.00	EACH		\$	
0260	21417ES717	PAVE MARK THERMO CONE CAP-SOLID YELLOW	234.00	SQFT		\$	
0270	22692NS714	PAVEMENT MARKING-THERMO LETTERS	46.00	EACH		\$	
0280	23158ES505	DETECTABLE WARNINGS (NEW)	25.00	SQFT		\$	
0290	23261EC	PAVE MARK-THERMO-X-WALK-24 IN	3,705.00	LF		\$	
0300	23928EC	PAVE MARK-THERMO "BUS" 8 FT	4.00	EACH		\$	
0310	23974EC	BIKE PATH	546.00	SQYD		\$	
0320	24386EC	PAVE MARKING THERMO-BIKE LANE ARROW	95.00	EACH		\$	
0330	26192EC	PAVE MARKING-THERMO SHARED LANE MARKING	3.00	EACH		\$	

PROPOSAL BID ITEMS

252292

Report Date 6/18/25

Page 2 of 2

Section: 0003 - SIGNING

LINE	BID CODE	ALT DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0340	02562	TEMPORARY SIGNS	500.00	SQFT		\$	

Section: 0005 - DEMOBILIZATION

LINE	BID CODE	ALT DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0350	02569	DEMOBILIZATION	1.00	LS		\$	