



CALL NO. 314

CONTRACT ID. 251027

MCCRACKEN COUNTY

FED/STATE PROJECT NUMBER FD04 073 0045 012-013

DESCRIPTION IRVIN S. COBB BRIDGE(US-45)

WORK TYPE LIGHTING

PRIMARY COMPLETION DATE 2/27/2026

LETTING DATE: September 25,2025

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME September 25,2025. 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 - 01

CONTRACT ID - 251027

FD04 073 0045 012-013

COUNTY - MCCRACKEN

PCN - DE07300452527

FD04 073 0045 012-013

IRVIN S. COBB BRIDGE(US-45) (MP 12.9) UPGRADE NAVIGATIONAL LIGHTING FOR THE US-45 IRVIN S COBB
BRIDGE IN McCRACKEN COUNTY (MP 13.8), A DISTANCE OF 0.90 MILES.LIGHTING SYP NO. 01-04903.00.
GEOGRAPHIC COORDINATES LATITUDE 37:06:52.00 LONGITUDE 88:37:45.00
ADT

COMPLETION DATE(S):

COMPLETED BY 02/27/2026 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 [KRS 14A.9-010](#) to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under [KRS 14A.9-030](#) unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the

foreign entity is not required to obtain a certificate as provided in [KRS 14A.9-010](#), the foreign entity should identify the applicable exception. Foreign entity is defined within [KRS 14A.1-070](#).

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website (www.transportation.ky.gov/construction-procurement). 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 [KRS 45A.607](#), 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 [KRS 11A.236](#) 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 [KRS 45A.328](#), 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

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 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.

[Buy America - Construction Program Guide - Contract Administration - Construction - Federal Highway Administration \(dot.gov\)](#)

Effective - June 26, 2025, Letting

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:_____

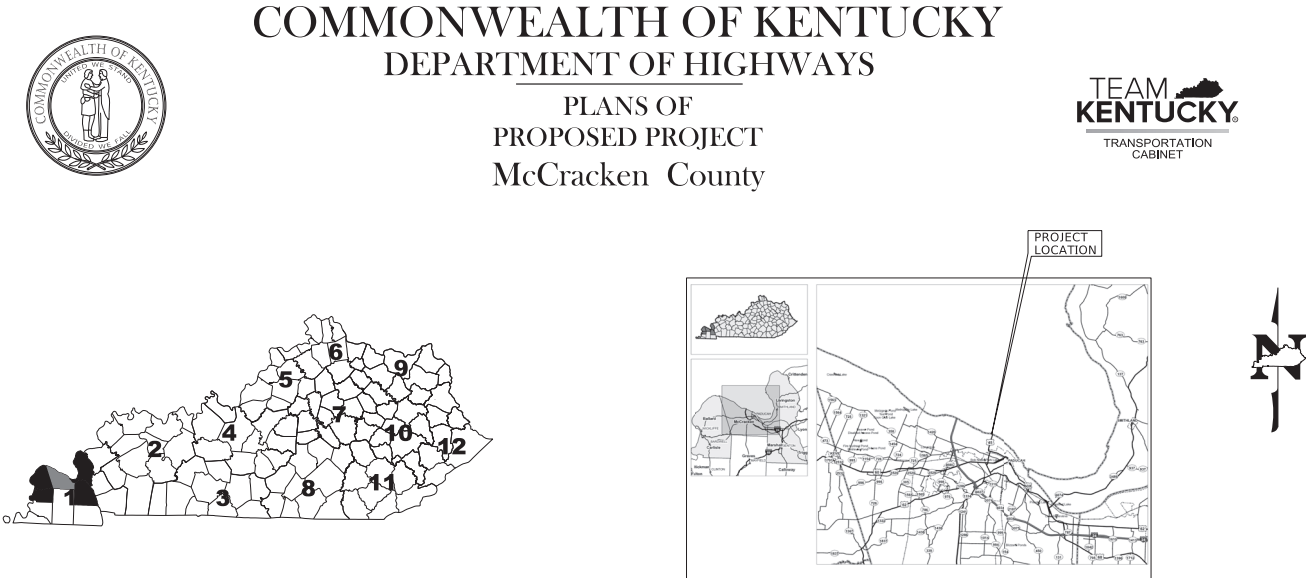
NOTE: THIS CERTIFICATION IS IN ADDITION TO ANY AND ALL REQUIREMENTS OUTLINED IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND/OR SPECIAL NOTES CONTAINED IN THE PROJECT PROPOSAL.

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




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ITEM NUMBER: 1-4903.00

PROJECT DESCRIPTION: US 45 OVER THE OHIO RIVER (IRVIN COBB BRIDGE) NAVIGATIONAL LIGHTING

	
LETTING DATE:	
RECOMMENDED BY: _____	PROJECT NUMBER: _____ DATE: _____
PLAN APPROVED BY: _____	STATE TECHNICAL ENGINEER: _____ DATE: _____
ITEM NO. 1-4903.00	COUNTY OF MCCRACKEN
SHEET NO. T1	

ROADWAY LIGHTING ESTIMATE OF QUANTITIES

TOTAL	UNITS	CODE	ITEM DESCRIPTION		
ITEM CODE	ITEM		UNIT	TOTAL	
2562	SIGNS		SQ FT	300	
2569	DEMobilIZATION (1.5%)		LP SUM	1	
2650	MAINTAIN & CONTROL TRAFFIC (5%)		LP SUM	1	
2671	PORTABLE CHANGEABLE MESSAGE SIGN		EACH	2	
4775	NAVIGATION LIGHT 360 DEG GREEN - LED		EACH	2	
4776	NAVIGATION LIGHT 180 DEG RED - LED		EACH	18	
4940	REMOVE LIGHTING		LP SUM	1	
6406	SBM ALUM SHEET SIGNS 0.080 IN		SQ FT	80	
20410ED	MAINTAIN LIGHTING		LP SUM	1	
21579EN	FLEX CONDUIT - 1 1/4 INCH		LIN FT	1,100	
23365EC	LIGHTING-NAV MONITORING SYSTEM		LP SUM	1	
24838EC	SOLAR POWERED NAV LIGHTING SYSTEM		EACH	20	

THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION, AND OTHER SPECIAL NOTES AND SPECIFICATIONS WILL APPLY ON THIS PROJECT. SEE SECTION 716 FOR MEASUREMENT AND OTHER DETAILS. SEE SECTION 602 FOR SPIRAL REINFORCEMENT SPLICING

THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE PROJECT SITE PRIOR TO SUBMITTING A BID AND SHALL BE THOROUGHLY FAMILIARIZED WITH EXISTING CONDITIONS. SUBMISSIONS OF A BID WILL BE CONSIDERED AN AFFIRMATION OF THIS INSPECTION HAVING BEEN COMPLETED.

NAVIGATIONAL LIGHTING SHALL BE MAINTAINED ON THE US 45 BRIDGE OVER THE OHIO RIVER THROUGHOUT THE ENTIRE PROJECT. ONCE THE NEW NAVIGATIONAL LIGHTING IS IN OPERATION, THE EXISTING NAVIGATIONAL LIGHTING SHALL BE REMOVED. THIS IS INCIDENTAL TO ITEM CODE 4940, REMOVE LIGHTING.

REMOVE CONDUIT, WIRING, AND ALL EQUIPMENT ASSOCIATED WITH THE EXISTING NAVIGATIONAL BRIDGE LIGHTING.

EXISTING LIGHTING CONTROLLER EQUIPMENT TO BE REMOVED SHALL BE RETURNED TO THE KYTC DISTRICT 1 OFFICE. THE CONTRACTOR SHALL CONTACT KYTC DISTRICT 1 TRAFFIC TO SCHEDULE EQUIPMENT DELIVERY TO THE ADDRESS LISTED BELOW, OR ADDRESS SPECIFIED BY THE DISTRICT 1 TRAFFIC ENGINEER:

DISTRICT 1 TRAFFIC
5501 KENTUCKY DAM ROAD
PADUCAH, KY 42003
(270) 898-2431

NAVIGATION LIGHTS SHALL NOT BE OUT OF OPERATION BETWEEN DUSK OR DAWN. IF LIGHTS ARE OUT, CONTRACTOR SHALL NOTIFY KYTC DISTRICT 1 TRAFFIC (270) 898-2431 AND THE UNITED STATES COAST GUARD (314) 269-2378. LIQUIDATION DAMAGES OF \$500 PER DAY SHALL BE ASSESSED IF KYTC AND USCG ARE NOT NOTIFIED OF AN OUTAGE.

MEASUREMENT NOTES THAT ARE IN ADDITION TO SECTION 716:

SOLAR POWERED NAVIGATION LIGHTING SYSTEM (24838EC): DEPARTMENT WILL MEASURE THE QUANTITY AS EACH INDIVIDUAL UNIT. THE DEPARTMENT WILL NOT MEASURE FURNISHING, INSTALLING AND DESIGN OF SPECIFIED UPSTREAM AND DOWNSTREAM LED LIGHTING UNITS, SOLAR ARRAYS, CONTROL EQUIPMENT, BATTERIES, CABINETS, MOUNTING HARDWARE, CONDUIT, WIRING, PLATFORMS, AND ALL OTHER NECESSARY EQUIPMENT TO COMPLETE A FULLY FUNCTIONING SOLAR POWERED NAVIGATIONAL LIGHTING SYSTEM. THIS SHALL COMPLY WITH UNITED STATES COAST GUARD AND ALL OTHER REGULATORY REQUIREMENTS.

LIGHTING-NAV MONITORING SYSTEM (23365EC): DEPARTMENT WILL MEASURE THE QUANTITY AS EACH UNIT. THE DEPARTMENT WILL NOT MEASURE FURNISHING, INSTALLING, AND DESIGN OF ALL NECESSARY EQUIPMENT INCLUDING HARDWARE AND SOFTWARE, RADIO TRANSMITTERS AND RECEIVERS, MODEMS, CURRENT TRANSFORMERS, CABINETS, WIRING, CONDUIT, AND ALL OTHER EQUIPMENT TO COMPLETE A FULLY FUNCTIONING MONITORING SYSTEM FOR THE NAVIGATION LIGHTING. ALSO INCLUDES COST FOR THE 10 YEAR SERVICE PLAN, SOFTWARE UPGRADES, AND TRAINING (IF APPLICABLE).

NAVIGATION LIGHT (360 DEGREE GREEN AND 180 DEGREE RED - LED)(4775 AND 4776): THE DEPARTMENT WILL MEASURE THE QUANTITY AS EACH INDIVIDUAL UNIT FURNISHED AND INSTALLED AS SPECIFIED IN THE PLANS. ALL REQUIRED EQUIPMENT SUCH AS BUT NOT LIMITED TO MOUNTING HARDWARE, STEMS, LATCHES, PULL CHAINS, HOUSING, LENSES, LAMPS, SPARE LAMPS, ETC. TO INSTALL THE FIXTURE AS INDICATED IN THE PLANS SHALL BE INCIDENTAL TO THE NAVIGATION LIGHT. CONTRACTOR SHALL VERIFY ALL MOUNTING HARDWARE AND STEM LENGTHS.

NOTES IN ADDITION TO SECTION 834

ADD SENTENCE TO SECTION 834.06: ALL WIRE SHALL HAVE WORDING ADDED TO THE OUTER JACKET THAT STATES : " PROPERTY OF KENTUCKY TRANSPORTATION CABINET 502 564 0501".

ADD SENTENCE TO SECTION 834.09: ALL WIRE SHALL HAVE WORDING ADDED TO THE OUTER JACKET THAT STATES: " PROPERTY OF KENTUCKY TRANSPORTATION CABINET 502 564 0501".

ADD SENTENCE TO SECTION 834.31.01 (G): ALL LIQUID-TIGHT FLEXIBLE METAL CONDUIT (LFMC) SHALL BE SUPPLIED WITH A WHITE OR LIGHT GREY PVC COATING. THE PVC COATING SHALL BE UL LISTED, SUNLIGHT RESISTANT, AND FLAME RETARDANT, OR AS APPROVED BY THE ENGINEER.

TRAFFIC CONTROL GENERAL:

TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE MOST RECENT EDITIONS OF THE KYTC STANDARD DRAWINGS AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (SECTION 112) AS WELL AS THE MOST CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

CONSTRUCTION WILL BE PERFORMED BEHIND BRIDGE CLOSURE AS DIRECTED BY THE ENGINEER.

CLOSURES WILL NOT BE MEASURED FOR PAYMENT BUT WILL BE INCIDENTAL TO THE ITEM MAINTAIN AND CONTROL TRAFFIC. ALL MAINTENANCE OF TRAFFIC PLANS ARE SUBJECT TO THE JUDGEMENT OF THE ENGINEER.

BRIDGE CLOSURES WILL NOT BE PERMITTED ON:
A. EASTER WEEKEND (THURSDAY - SUNDAY)
B. MEMORIAL DAY WEEKEND (FRIDAY - MONDAY)
C. INDEPENDENCE DAY WEEKEND (JULY 1 - 4)
D. LABOR DAY WEEKEND (FRIDAY - MONDAY)
E. THANKSGIVING DAY WEEKEND (THURSDAY - SUNDAY)
F. CHRISTMAS / NEW YEARS (DECEMBER 24 - JANUARY 3)

NAVIGATION LIGHTING SYSTEM SPECIFICATIONS

OVERVIEW

THIS INSTALLATION SHALL CONSIST OF ALL COMPONENTS NECESSARY FOR CONSTRUCTION OF A COMPLETE, 12-VOLT, SOLAR POWERED NAVIGATION/AVIATION LIGHTING SYSTEM AS FOLLOWS:

IRVIN S COBB (BROOKPORT) BRIDGE (US 45) - NAVIGATION

THE SYSTEMS SHALL CONFORM TO THE REQUIREMENTS THE US COAST GUARD AND ALL OTHER APPLICABLE REGULATORY AGENCIES. THIS PROJECT ALSO INCLUDES FURNISHING AND INSTALLING A WIRELESS SYSTEM DESIGNED TO MONITOR THE STATUS OF ALL NAVIGATION/AVIATION LIGHT LOCATIONS.

EACH LIGHTING FIXTURE SYSTEM SHALL BE A K&K SYSTEM, INC. SOLAR NAVIGATIONAL LIGHTING COMPLETE SYSTEM WITH SOLAR PANEL, ENCLOSURE, K&K COMMUNICATIONS SYSTEM, NAVIGATIONAL BEACONS, AND OTHER SPECIFICS AS DETAILED IN THIS PLAN SET.

SYSTEM DESIGN:

SYSTEM SHALL BE DESIGNED TO UTILIZE SOLAR ELECTRIC MODULES WITH STORAGE BATTERIES AS THE POWER SOURCES TO PROVIDE CONTINUOUS POWER FOR NAVIGATION/AVIATION LIGHTS AT THE SPECIFIED LOCATIONS ON EACH BRIDGE AS WELL AS SUFFICIENT POWER TO OPERATE THE WIRELESS MONITORING SYSTEM (APPROXIMATELY 10 WATTS PER LOCATION OF EACH MONITORING CONTROL PANEL). THE SYSTEM MUST BE DESIGNED FOR OPERATION AT AN AVERAGE MONTHLY INSULATION ON A HORIZONTAL SURFACE, INSULATION AT TILT, AND AVERAGE MONTHLY TEMPERATURES AT EACH SITE.

THE SYSTEM SHALL BE DESIGNED FOR OPERATION AT A 1.6 MONTHLY ISOLATION.

SOLAR MODULES AND MOUNTING STRUCTURE:

SOLAR ELECTRIC PANELS SHALL BE TRIPLE JUNCTION SOLAR CELLS WITH AN UNBREAKABLE CONSTRUCTION. PANEL SHALL BE POLYMER ENCAPSULATED (GLASS ENCAPSULATION IS NOT ACCEPTABLE). THE CELLS SHALL BE ENCAPSULATED TO PROTECT FROM AN ENVIRONMENT CONSISTENT WITH THIS SITE. EACH MODULE SHALL INCLUDE A WEATHER TIGHT JUNCTION BOX FOR CONNECTING THE ARRAY OUTPUT CABLES TO THE BATTERY TERMINALS. THE MODULES SHALL BE DESIGNED TO PROVIDE RATED POWER OUTPUT FOR A MINIMUM FOR FIFTEEN YEARS.

SEPARATE PANELS SHALL BE INSTALLED FOR THE UPSTREAM AND DOWNSTREAM LOCATIONS. EACH PANEL SHALL BE SIZED TO PROVIDE THE NECESSARY WATTAGE FOR THE LED LIGHTING FIXTURES. ALL CONTROL EQUIPMENT AND 10 ADDITIONAL WATTS AT 12 VOLTS D.C. TO POWER THE SEPARATE MONITORING SYSTEM. THERE ALSO SHOULD BE ENOUGH SOLAR POWER FOR THE WIRELESS ROUTER STATED LATER IN THESE SPECIFICATIONS.

THE SOLAR ELECTRIC MODULES SHALL BE DESIGNED TO BE SECURELY ATTACHED TO THE BRIDGE STRUCTURE. SCHEMATIC-ONLY DIAGRAMS ARE SHOWN DEPENDING ATTACHMENT TO THE SELECTED PORTION OF THE BRIDGE. MOUNTING BRACKETS AND ARMS SHALL BE FABRICATED FROM STAINLESS STEEL. STRUCTURE MATERIALS SUPPORTING TO PROVIDE NECESSARY STABILITY FOR THE PANEL ARRAYS. PANEL ORIENTATION SHALL BE ADJUSTABLE TO FACILITATE MAXIMUM SOLAR INPUT. ALL MOUNTING HARDWARE FOR ATTACHMENT TO THE BRIDGE SHALL BE STAINLESS STEEL.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL SHOP DRAWINGS FOR CABINETS, MOUNTING BRACKETS, AND OTHER STRUCTURAL ITEMS PRIOR TO THE FABRICATION OF THESE ITEMS.

SOLAR CONTROLS:

EACH SOLAR CONTROL SHALL UTILIZE A SOLID STATE INTEGRATED CONTROL UNIT CAPABLE OF MANAGING BATTERY CHARGING AND NAVIGATION/AVIATION LIGHT OUTPUT CONTROL. THESE FUNCTIONS SHALL BE ACCOMPLISHED WITHIN A SINGLE CABINET WITH MONITORING SYSTEM IN EACH OF THE SPECIFIED LOCATIONS.

THE CHARGE CONTROL PORTION OF THE CONTROL UNIT SHALL BE DESIGNED SUCH THAT IT DRAWS ITS POWER FROM THE SOLAR ARRAY ONLY WHEN POWER IS AVAILABLE SO AS TO REDUCE PARASITIC LOAD ON THE SYSTEM. UNITS SHALL USE AN AMBIENT TEMPERATURE SENSOR TO ADJUST THE CHARGE TERMINATION POINT (TEMPERATURE COMPENSATED CHARGING) TO PROLONG THE BATTERY LIFE. THE CHARGE CIRCUIT SHALL EMPLOY A PULSE-WIDTH MODULATION ALGORITHM FOR CHARGING THE BATTERIES AND SHALL BE OF SOLID STATE SERIES SWITCH TYPE CONFIGURATION.

ONBOARD, SHORT-CIRCUIT PROTECTION SHALL BE PROVIDED. THE CONTROLS SHALL HAVE THE ABILITY TO DETECT DAY AND NIGHT THROUGH A PHOTOVOLTAIC ARRAY (GROSS TILT DOWN ACTIVATOR). THE LOAD CONTROL FUNCTION SHALL INCORPORATE A LOW VOLTAGE DISCONNECT CIRCUIT TO DISCONNECT POWER TO THE CONTROL CIRCUIT IF THE BATTERY VOLTAGE FALLS TO A LOW STATE OF CHARGE (TYPICALLY 20%). WE RECOMMEND TO USE MORNINGSSTAR SUNSEAR 55-20L OR APPROVED EQUIAL.

SYSTEM ENCLOSURE:

THIS ENCLOSURE IS TO HOUSE BOTH THE SOLAR POWERED LIGHTING SYSTEM AS WELL AS THE WIRELESS MONITORING SYSTEM. THE ENCLOSURE SHALL BE FABRICATED FROM GRADE 316 STAINLESS STEEL WITH A MINIMUM THICKNESS OF 0.125" AND BE NEMA 3R RATED. THE ENCLOSURE SHALL BE INSULATED WITH A MINIMUM OF 1 1/2" INSULATION OR AS APPROVED BY THE ENGINEER. THE CABINET SHALL PROVIDE SCREENED LOUVERED VENTS ON EACH SIDE OF EACH COMPARTMENT. THE LOUVER SCREENING SHALL BE GRADE 316 STAINLESS STEEL FOR LONGEVITY. AN INTEGRAL RAIN UP SHALL ALSO BE PROVIDED AT THE TOP OF THE MAIN CABINET BODY TO MINIMIZE ENTRY OF RAIN. THE MAINTENANCE ENTRANCE SHALL BE HINGED AND DOUBLE-LOCKING. THE ENTRANCE SHALL BE UNED WITH A NEOPRENE CASKET AROUND THE ENTIRE EDGE. THE ENTRANCE SHALL BE SECURED WITH A CORBIN #3 LOCK. THE KEYHOLE FOR THIS LOCK SHALL HAVE A COVER ATTACHED TO THE DOOR WITH A SINGLE RIVET. IN ADDITION TO THE CABINET INSULATION, THE BATTERY COMPARTMENT SHALL PROVIDE A MINIMUM OF 1/2" OF INSULATING SHEETING AROUND THE BATTERY TO MINIMIZE HEAT TRANSFER BETWEEN THE BATTERY AND THE ENCLOSURE WALL. THE CABINET SHALL BE OF SUFFICIENT SIZE TO HOUSE THE BATTERY AND ALL CONTROL COMPONENTS (INCLUDING MONITORING SYSTEM) AND ALLOW SUFFICIENT ROOM FOR ROUTINE MAINTENANCE. MAXIMUM SIZE: 24" HIGH X 14" WIDE X 14" DEEP. ALL CONDUIT ATTACHMENTS TO THIS CABINET SHALL BE MADE IN THE BASE OR SIDE OF THE CABINET TO MINIMIZE MOISTURE PENETRATION.

BATTERIES:

BATTERIES SHALL BE ABSORBED GLASS MAT MAINTENANCE-FREE AND BE NON-SPILLABLE. BATTERIES SHALL BE DEEP CYCLE MARINE BATTERIES AND SHALL BE 12 VOLT MINIMUM 100 AMP HOUR. BATTERIES SHALL HAVE A FIVE-YEAR WARRANTY ON ALL PARTS AND MATERIALS. THE WARRANTY SHALL START ON THE DATE OF THE ACCEPTANCE OF THE INSTALLATION BY THE KENTUCKY TRANSPORTATION CABINET.

1-27-2022

SYSTEM WIRING:

THE SYSTEM SHALL FEATURE A COLOR CODED WIRING HARNESS FOR BOTH THE LAMPS AND SOLAR ARRAY OUTPUT. A REVEY LOCATED CONDUCTOR SHALL BE UTILIZED TO THE HARNESS TO ALLOW THE LAMPS TO BE QUICKLY AND EASILY DISCONNECTED FROM THE CONTROL ELECTRONICS. AN INTEGRAL FUSE ASSEMBLY SHALL BE INCLUDED IN THE LOAD POSITIVE WIRE OF THE HARNESS. ALL WIRING CONNECTIONS SHALL BE TERMINATED WITH CRIMPED SPACE TERMINALS. SPLICES SHALL ONLY OCCUR WHERE SHOWN IN THE PLANS OR AS NOTED IN SECTION 710.03.08 IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL SPLICES SHALL BE MADE IN BOXES ACCESSIBLE FROM THE ROADWAY.

THE OUTPUT HARNESS FOR THE SOLAR ARRAY SHALL CONSIST OF A JACKETED PAIR OF CONDUCTORS. JACKETS SHALL BE OF UV RESISTANT PVC OR XLT MATERIAL. MARINE TERMINALS SHALL BE UTILIZED FOR INSTALLATION AND MAINTENANCE. ALL WIRING SHALL BE INCASED IN LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT. ALL CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, BE APPROPRIATE TO THE SOLAR ARRAY OUTPUT CURRENT, AND SHALL BE TYPE THHN OR THHN, AND BE A MINIMUM OF #10 AWG.

CONDUIT: ALL CONDUIT SHALL BE MINIMUM 1-1/4" LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LMFC) OR RIGID ALUMINUM CONDUIT (RAC). WHERE CONDUIT CROSSES AN EXPANSION OR OPEN JOINT, LMFC WITH A CONDUIT ON EACH END SHALL BE USED TO COMPENSATE FOR MOVEMENT IN ANY DIRECTION BETWEEN THE TWO CONDUIT ENDS WHICH IT CONNECTS. CONDUITS SHALL BE APPLIED TO THE BRIDGE MEMBERS BY USING STAINLESS STEEL CLAMPS OR STRAPS WITH STAINLESS STEEL NUTS, BOLTS AND LOCKING WASHERS.

WIRELESS MONITORING SYSTEM SPECIFICATIONS

MONITORING SYSTEMS:

A K&K SYSTEMS' CROSSSTALK CONTROLLER SHALL BE INSTALLED TO MONITOR THE STATUS OF THE INDIVIDUAL NAVIGATION/AVIATION LIGHTING UNITS AND INCLUDE A 10-YEAR DATA SERVICES PLAN. THE PURPOSE OF THE MONITORING SYSTEM IS TO PROVIDE A COMPLETE, PROGRAMMABLE, INTELLIGENT, NETWORKABLE AND EXPANDABLE LOW VOLTAGE MONITORING SYSTEM FOR THE NAVIGATION/AVIATION LIGHTING AS DESCRIBED HEREIN AND AS SHOWN ON THE SCHEMATIC DRAWINGS AND SCHEDULES. EACH INDIVIDUAL FIXTURE/CONTROLLER LOCATION WILL COMMUNICATE DIRECTLY BACK TO K&K VIA EMAIL AND/OR TEXT TO SELECT K&K EMPLOYEES FOR ANY "BUILD" OR POWER/BATTERY FAILURE.

THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE, MICROPROCESSOR BASED, ADDRESSABLE, NETWORKABLE DISTRIBUTED INTELLIGENT LOW VOLTAGE LIGHTING COMMUNICATION SYSTEM FOR CENTRALIZED MONITORING. SYSTEM SHALL INCLUDE BUT NOT BE LIMITED TO: RELAYS, CONTROLLERS, LIGHT LEVEL SENSORS, RADIO FREQUENCY TRANSCEIVERS, LOW VOLTAGE CONTROL POWER AND DATA LINE WIRING, SOFTWARE, PROGRAMMING, CUSTOM GRAPHICAL SCREENS AND MISCELLANEOUS COMPONENTS AS REQUIRED FOR A COMPLETE, OPERABLE NAVIGATION/AVIATION MONITORING SYSTEM. ALL SYSTEM COMPONENTS SHALL ARRIVE AT THE JOB SITE COMPLETELY FACTORY PRE-WIRED AND READY FOR FIELD INSTALLATION. ALL CONNECTIONS SHALL BE CLEARLY AND PERMANENTLY LABELLED TO FACILITATE CORRECT AND EASY IDENTIFICATION AND INSTALLATION OF EQUIPMENT.

EACH MONITORING SYSTEM SHALL BE WIRELESS AND WILL BE POWERED BY THE 12 VOLT FEED. INSIDE THE NAVIGATION/AVIATION CONTROL CABINET, THE MONITORING SYSTEM SHALL BE CAPABLE OF SENSING CURRENT FLOW, VOLTAGE, AND FAULT CONDITIONS FOR THE NAVIGATION/AVIATION LIGHTING UNITS. THE CENTRAL PROCESSING UNIT CABINET SHALL HAVE THE NECESSARY COMMUNICATIONS EQUIPMENT TO RELAY INFORMATION TO THE DISTRICT 1 OFFICE BY WIRELESS MODEM COMPATIBLE WITH THE AT&T NETWORK.

CONTRACTOR SHALL FURNISH AND INSTALL CROSSSTALK CONTROL UNIT, POWER SUPPLY, DATA CABLES, ALL CONNECTORS, AND HARDWARE REQUIRED FOR COMMUNICATION IN EACH OF THE INDIVIDUAL CONTROL CABINETS.

ALL SYSTEM COMPONENTS SHALL ARRIVE AT THE JOB SITE COMPLETELY FACTORY PRE-WIRED AND READY FOR FIELD INSTALLATION. ALL CONNECTIONS SHALL BE CLEARLY AND PERMANENTLY LABELLED TO FACILITATE CORRECT AND EASY IDENTIFICATION OF EQUIPMENT. THE ROUTERS AND ANTENNAS WILL BE INCIDENTAL TO THE MONITORING SYSTEM BID ITEM.

THE MONITORING SYSTEM SHALL HAVE A TWO YEAR WARRANTY ON ALL PARTS AND MATERIALS. THE WARRANTY SHALL START ON THE DATE OF THE ACCEPTANCE OF THE INSTALLATION BY THE KENTUCKY TRANSPORTATION CABINET. WIRELESS MONITORING SHALL BE POSSIBLE FROM UP TO 1 MILE LINE OF SIGHT DISTANCE TO OR FROM THE CLOSEST TRANSCEIVER IN AN URBAN ENVIRONMENT OR WITH WIRELESS REPEATERS. FULLY PROGRAMMABLE CIRCUIT DIAGNOSTIC CAPABILITY AND ALARMING VIA PERSONAL COMPUTER (PC) SHALL BE POSSIBLE FOR ALL FIXTURES.

RADIO NETWORK SHALL OPERATE WITHIN AN UNLICENSED FCC BAND, UTILIZING SPREAD SPECTRUM AND FREQUENCY HOPPING TECHNOLOGY. RADIO NETWORK SHALL BE TRANSPARENT ACROSS ETHERNET (LAN PLATFORM, ALL OF THE DATA ACCUMULATION TRANSFERRED OVER THE WIRELESS RF NETWORK SHALL BE AUTOMATICALLY ERROR CHECKED. SYSTEMS THAT DO NOT PROVIDE SEND/ACKNOWLEDGE ERROR CHECKING ARE NOT ACCEPTABLE.

PASSWORD PROTECTED ACCESS VIA THE MODEM SHALL BE POSSIBLE FOR INTEROPERABLE CONNECTION FROM AN OFF-SITE BASED PC FOR FACTORY PROGRAMMING AND SUPPORT AND OWNER ACCESS. SYSTEM COMMUNICATIONS SHALL INCLUDE THE MODEM AND BRIDGE TO THE MONITORING SYSTEM. FACTORY PROGRAMMING AND TROUBLESHOOTING ASSISTANCE SHALL BE AVAILABLE VIA THE WIRELESS MODEM. THE SYSTEM SHALL BE CAPABLE OF ACCEPTING ANY NUMBER OF COMMANDS OR COMMAND SEQUENCES ALLOWING PROGRAMS TO RUN CONTINUOUSLY.

THE MONITORING SYSTEM SHALL BE ABLE TO EMAIL ALERTS FOR EACH NODE VALUES AND NO CELL MODEM CONNECTION FOR A MINIMUM OF 1 MINUTE INCREMENTS. THE EMAILS SHALL BE ASSIGNED TO A LOGGING ADDRESS OF 30 EMAILS. THE ALERTS SHALL BE LABEL FOR EACH NODE INCLUDING MINIMUM THRESHOLDS, MAXIMUM THRESHOLDS, ACTUAL CURRENT READING, AND LOCATION OF SYSTEM. THE MONITORING SYSTEM SHALL INCLUDE WEB BASED INTERNET BROWSER/ CONTROL. THE WEB BASED CONTROL APPLICATION SHALL RESIDE WITHIN THE OWNERS SECURE SERVER NETWORK AND PROVIDE THE CAPABILITY TO RESET THE ALERT/NOTIFICATION SYSTEM VIA THE INTERNET TO A USER-DEFINED DEFAULT CONDITION. THIS WEB BASED CONTROL APPLICATION SHALL NOT HAVE ANY RECURRING MAINTENANCE COSTS BY THE CABINET.

CENTRAL CONTROL UNIT SHALL SUPPORT UP TO 64,000 CONTROLLERS NETWORKED ON WIRELESS SYSTEMS.

PROGRAMMED DATA BEING STORED IN STATIC RAM SHALL BE PROTECTED FROM LOSS DURING POWER FAILURE. THE CPU BASED REAL TIME CLOCK SHALL BE PROTECTED BY A RECHARGEABLE NICAD OR LITHIUM BATTERY CAPABLE OF WITHSTANDING UP TO A 30-DAY POWER LOSS.

RECHARGEABLE WIRELESS BE LIGHTING

PROVIDE WIRELESS LIGHTING EXPLANATION WITH A WIRELESS CARD SLOT IN COMMUNICATION HUB. WIRELESS LINK SHALL PROVIDE FULL FUNCTION ZONE CONTROL AND DATA ACCUMULATION. DIAGNOSTICS, INCLUDING CURRENT SENSING AND VOLTAGE SENSING.

WIRELESS COMMUNICATIONS SHALL BE BIDIRECTIONAL. RF TRANSCEIVER SHALL OPERATE IN AN UNLICENSED FCC ISM BAND, FCCID CERTIFIED. RF RANGE SHALL BE A MINIMUM 1/2 MILE LINE OF SIGHT. MAXIMUM DISTANCES OF UP TO 20 MILES ARE SUBJECT TO URBAN ENVIRONMENTAL CONDITIONS AND OBSTRUCTIONS. SURGE PROTECTION SHALL BE A MINIMUM 2500 VOLTS TO GROUND. EQUIPMENT SHALL OPERATE AT A VOLTAGE OF 12 VDC. EQUIPMENT SHALL BE CAPABLE OF OPERATING AT TEMPERATURES RANGING FROM -40°C TO 65°C @ 95% RELATIVE HUMIDITY AND AT A RELATIVE HUMIDITY RANGING FROM 45%- NON-CONDENSING.

PROVIDE REDUNDANT RF LINK WHERE SPECIFIED, ONE FOR EACH TRANSCEIVER USED.

CUSTOM GRAPHICAL SCREENS:

PROVIDE CUSTOM GRAPHICAL SITE SCREENS USING CAD DRAWINGS OF THE SITE PROVIDED BY THE KENTUCKY TRANSPORTATION CABINET TO SERVE AS BACKGROUNDS FOR THE SITE ZOOM SCREENS. PROVIDE A CUSTOM GRAPHICAL SCREEN FOR EACH MONITORING SYSTEM. FROM THERE THE USER SHALL BE ABLE TO ACCESS EACH FIXTURE INDIVIDUALLY, VIEW FIXTURE STATUS, DIAGNOSTIC FILES, AND DATA LOGS.

DATA ACUMULATION AND ARCHIVE:

THE LIGHTING MONITOR SYSTEM SOFTWARE SHALL ALLOW ALL TYPES OF DATA FROM THE SYSTEM TO BE LOGGED AND ARCHIVED. DATA SHALL BE ACCESSIBLE VIA SPREADSHEET OR DATABASE, AND CONTAIN THE FOLLOWING:

NAVIGATION/AVIATION LIGHTING

VOLTAGE LEVELS FOR EACH VOLTAGE SENSOR
CURRENT DRAWN PER FIXTURE
TRUE AND REAL POWER
TIME AND DATE STAMPING AS REQUIRED BY USER

FACTORY SERVICE, SUPPORT AND START-UP:

THE MANUFACTURER SHALL PROVIDE FACTORY ASSEMBLY AND TESTING OF ALL MONITOR STATIONS AND ASSOCIATED APPARATUS. MONITOR MODULES SHALL BE FACTORY PROGRAMMED PER PROJECT SPECIFICATIONS. ALL REQUIRED SOFTWARE SHALL BE INSTALLED PRIOR TO FACTORY SHIPMENT OR UNLOADED FROM THE FACTORY VIA MODEM LINK.

AN ON SITE FACTORY START-UP BY A QUALIFIED TECHNICIAN SHALL BE PROVIDED AS A PART OF THE SYSTEM PACKAGE. START-UP WILL NOT BE PERFORMED UNTIL THE SYSTEM INSTALLATION IS COMPLETE AND A WIRELESS MODEM HAS BEEN INSTALLED FOR THE SYSTEM. START-UP SHALL INCLUDE A SYSTEM INSPECTION, ADDITIONAL SOFTWARE INSTALLATION IF NECESSARY, PROGRAM TESTING, TRAINING AND TROUBLESHOOTING ASSISTANCE. SUPPORT VIA MODEM FROM FACTORY FOR DIRECT SYSTEM DIAGNOSIS AND PROGRAMMING ASSISTANCE SHALL BE PROVIDED AT NO CHARGE UNTIL SUCH TIME AS FINAL ACCEPTANCE OF THE COMPLETE SYSTEM HAS BEEN GRANTED. THE MANUFACTURER SHALL PROVIDE A COMPLETE SUBMITTAL PACKAGE FOR APPROVAL PRIOR TO SHIPMENT. THE PACKAGE SHALL CONSIST OF PRODUCT CUT SHEETS AND SPECIFICATIONS, A BILL OF MATERIALS, WARRANTY INFORMATION, WIRE RESER DIAGRAMS, AND FIELD WIRING INSTRUCTIONS. IN ADDITION TO THE SUBMITTALS, A SET OF INSTALLATION, OPERATOR, AND MAINTENANCE MANUALS SHALL BE SHIPPED WITH THE EQUIPMENT.



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



DRAWING TITLE: NAVIGATION LIGHTING & MONITORING
SPECIFICATIONS

HORIZONTAL SCALE: 1"=4'

ITEM NO.
1-1903.09
COUNTY OF
MCCRACKEN
SHEET NO.
73

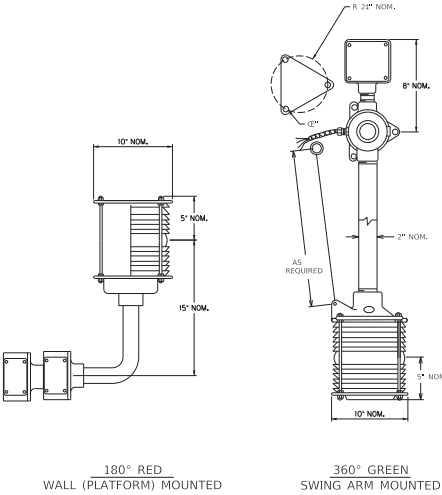
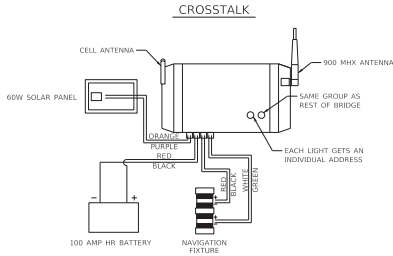
Geometrics Designer v10.12.02.4

USER: 090810469

FILE NAME: C:\B869\WP-45-PM42\0091151300\0267670_TT_05-41 LIGHTING AND MONITORING SPECS.DGN

NAVIGATION LIGHT FIXTURES

- 1) NAVIGATION LIGHTS SHALL MEET ALL REQUIREMENTS OF THE UNITED STATES COAST GUARD AND OTHER REGULATORY AGENCIES.
- 2) DUAL LAMP HOUSING, MOUNTING, AND SWIVELS SHALL BE CAST SILICON BRONZE. STEMS AND PULL CHAINS SHALL BE STAINLESS STEEL. ALL CONNECTIONS SHALL BE SEALED WITH WATERPROOF GASKETS AND THE ASSEMBLY SHALL BE RAIN TIGHT.
- 3) LENS SHALL BE OF PERMANENT, RIGID, HEAT RESISTANT GLASS, 8" NOMINAL OUTSIDE DIAMETER, STANDARD MARINE FRESNEL TYPE 180° OR 360° AND RED OR GREEN AS SPECIFIED.
- 4) AN INDEPENDENT 12V SOLAR-POWERED SYSTEM SHALL BE USED TO POWER EACH INDIVIDUAL LIGHTING SYSTEM UNDER NORMAL OPERATION. A 40-WATT SOLAR PANEL AND 10 AMP HR BATTERY SHALL BE PROVIDED AS THE PRIME POWER SOURCE FOR EACH FIXTURE OR A 60-WATT (MIN.) SOLAR PANEL AND 100 AMP HR BATTERY FOR EACH FIXTURES AS INDICATED.
- 5) THE LED SHALL UTILIZE ALINGAP (ALUMINUM INDIUM GALLIUM PHOSPHORUS) TECHNOLOGY FOR RED AND INGAN (INDIUM GALLIUM NITRIDE) FOR GREEN INDICATIONS. AND SHALL BE RATED FOR 100,000 HOURS OF CONTINUOUS OPERATION OVER A TEMPERATURE RANGE OF -40° C TO + 74° C. THE LED MODULES SHALL BE RATED FOR A MINIMUM LIFE OF 60 MONTHS AND SHALL MEET ALL PARAMETERS OF THIS SPECIFICATION THROUGHOUT THE 60 MONTH PERIOD. ONE SPARE LAMP OF EACH TYPE SHALL BE PROVIDED FOR EACH FIXTURE.
- 6) PIVOTING FIXTURES SHALL BE SUSPENDED FROM THE SWIVEL ON A STEM MADE OF 1 1/2" (I.D.) SCHEDULE 40 STAINLESS STEEL PIPE OF REQUIRED LENGTH TO MEET USCG REQUIREMENTS AS NOTED ON THE PLANS. STEMS OVER 5 FEET LONG SHALL REQUIRE A 60% COUNTERWEIGHT.
- 7) SWIVEL AND PIPE STEM SHALL PROVIDE FOR ALL WIRING TO BE COMPLETELY CONTAINED INSIDE THE LIGHT ASSEMBLY. GASKETS AND O-RINGS SHALL BE USED TO PROVIDE A WEATHER TIGHT ASSEMBLY. THE SWIVEL SHALL BE OF CAST SILICON BRONZE AND SPINDLE SHALL BE OF STAINLESS STEEL.
- 8) AN AUTOMATIC LATCH SHALL HOLD THE LIGHT SECURELY IN NORMAL OPERATING AND SERVICE POSITIONS. A FIRM PULL ON THE STAINLESS STEEL PULL CHAIN SHALL AUTOMATICALLY RELEASE THE LATCH, ALLOWING THE FIXTURE TO PIVOT. AS THE LIGHT IS RAISED, LATCH SHALL AUTOMATICALLY ENGAGE TO HOLD LIGHT IN SERVICE POSITION. SERVICE POSITION SHALL BE AT MOST ONE FOOT FROM THE CATWALK PLATFORM RAILING OR THE BRIDGE WALL STRUCTURE. THE SERVICE POSITION SHALL BE AT LEAST ONE FOOT ABOVE THE BRIDGE WALL OR CATWALK RAILING. FIXTURE SHALL BE DESIGNED SO THAT LIGHT MAY BE PULLED FROM EITHER SIDE.
- 9) ASSEMBLY MOUNTING SHALL BE ACCOMPLISHED BY USING 1/2" DIAMETER STAINLESS STEEL BOLTS, NUTS, AND LOCKING WASHERS.
- 10) ALL ATTACHMENTS TO BRIDGE STEEL MEMBERS SHALL BE SEPARATED FROM DIRECT CONTACT WITH STEEL MEMBERS BY A MINIMUM 1/8" NEOPRENE OR NYLAR GASKETING MATERIAL TO PREVENT CORROSION CAUSED BY CONTACT BETWEEN DISSIMILAR METALS. THIS INCLUDES NAVIGATION FIXTURES, CONTROL CABINETS, AND ALL MOUNTING BRACKETS.



NOTE:
STEM FOR GREEN NAVIGATION LIGHT SHALL BE THE LENGTH NECESSARY FOR THE NAVIGATION LIGHT TO HANG BELOW THE LOWEST BRIDGE MEMBER IN THE NAVIGATION SPAN SO AS TO BE VISIBLE FROM AN APPROACHING VESSEL.

NOTES:

THE 180° RED PIER LIGHTS SHALL BE SECURELY MOUNTED AS CLOSE AS POSSIBLE TO THE CENTER OF THE PIER SUCH THAT THE LIGHT CAN BE MAINTAINED FROM THE BRIDGE DECK. EACH 180° RED LIGHT SHALL SHOWN THROUGH A HOUSING AND OF 180° AND SHALL BE MOUNTED TO SHOW 90 DEGREES ON EITHER SIDE OF A LINE PARALLEL TO THE AXIS OF THE CHANNEL SO AS TO BE VISIBLE FROM AN APPROACHING VESSEL.

RED RETRO-REFLECTIVE PANELS, MEASURING 2'x2', SHALL BE INSTALLED ON THE UPSTREAM SIDE OF THE PIERS ADJACENT TO THE CHANNEL. ONLY THE RED RETRO-REFLECTIVE PANELS SHALL BE INSTALLED WITHIN 2' OF THE CORRESPONDING 180° RED LIGHT.

THE CHANNELWAY FACE ON THE LEFT DESCENDING MAIN CHANNEL. PIER SHALL BE MARKED WITH ONE SQUARE YELLOW, HIGH INTENSITY GRADE RETRO-REFLECTIVE PANE THAT MEASURES 2 FEET PER SIDE. THE RETRO-REFLECTIVE PANE SHALL BE ATTACHED TO THE EXISTING SIGN SO AS TO EFFECTIVELY REFLECT THE SEARCHLIGHT OF AN APPROACHING, DOWNBOUND VESSEL.

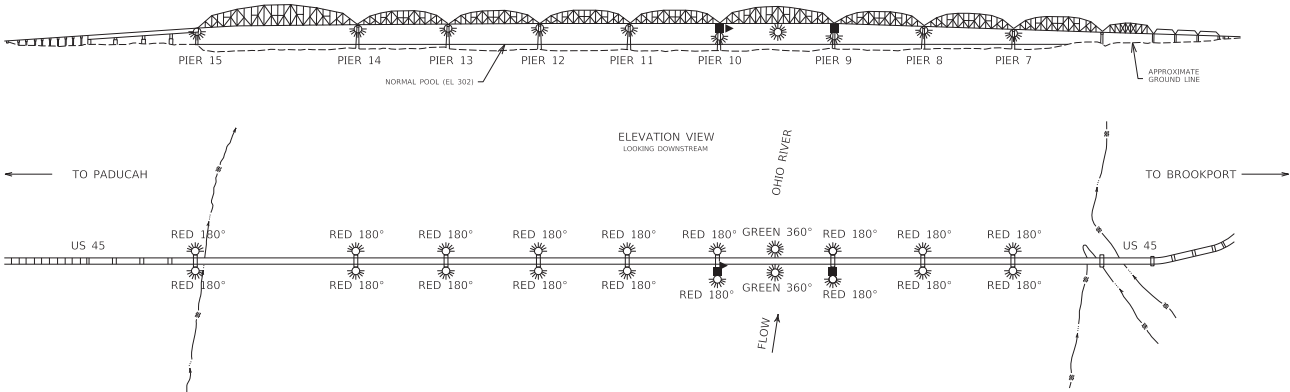
THE 360° GREEN LIGHTS SHALL BE REPLACED IN THEIR CURRENT LOCATION ON THE PLATFORM. THE SOLAR PANEL AND BATTERY BOX SHALL BE MOUNTED TO A NEW PLATFORM ADJACENT TO THE EXISTING PLATFORM. ONE GREEN LIGHT SHALL BE ON THE DOWNSTREAM SIDE OF THE BRIDGE AND THE OTHER SHALL BE ON THE UPSTREAM SIDE OF THE BRIDGE. EACH GREEN LIGHT SHALL BE SECURELY MOUNTED JUST BELOW THE LOWEST BRIDGE MEMBER AND IN LINE WITH THE AXIS OF THE CHANNEL. THE GREEN LIGHT SHALL BE MOUNTED SO THAT THE LIGHT CAN BE MAINTAINED FROM THE BRIDGE DECK.

ALL ATTACHMENTS SHALL BE MADE BY GRADE 316 STAINLESS STEEL CLAMPING DEVICES. DRILLING AND/OR WELDING STRUCTURAL BRIDGE MEMBERS SHALL NOT BE ALLOWED.

ALL STAINLESS STEEL SHALL BE GRADE 316 STAINLESS STEEL.

CONDUIT SHALL BE SECURED EVERY 4 FEET.

ALL CONDUIT SHALL BE 1-1/4" LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LFMC).

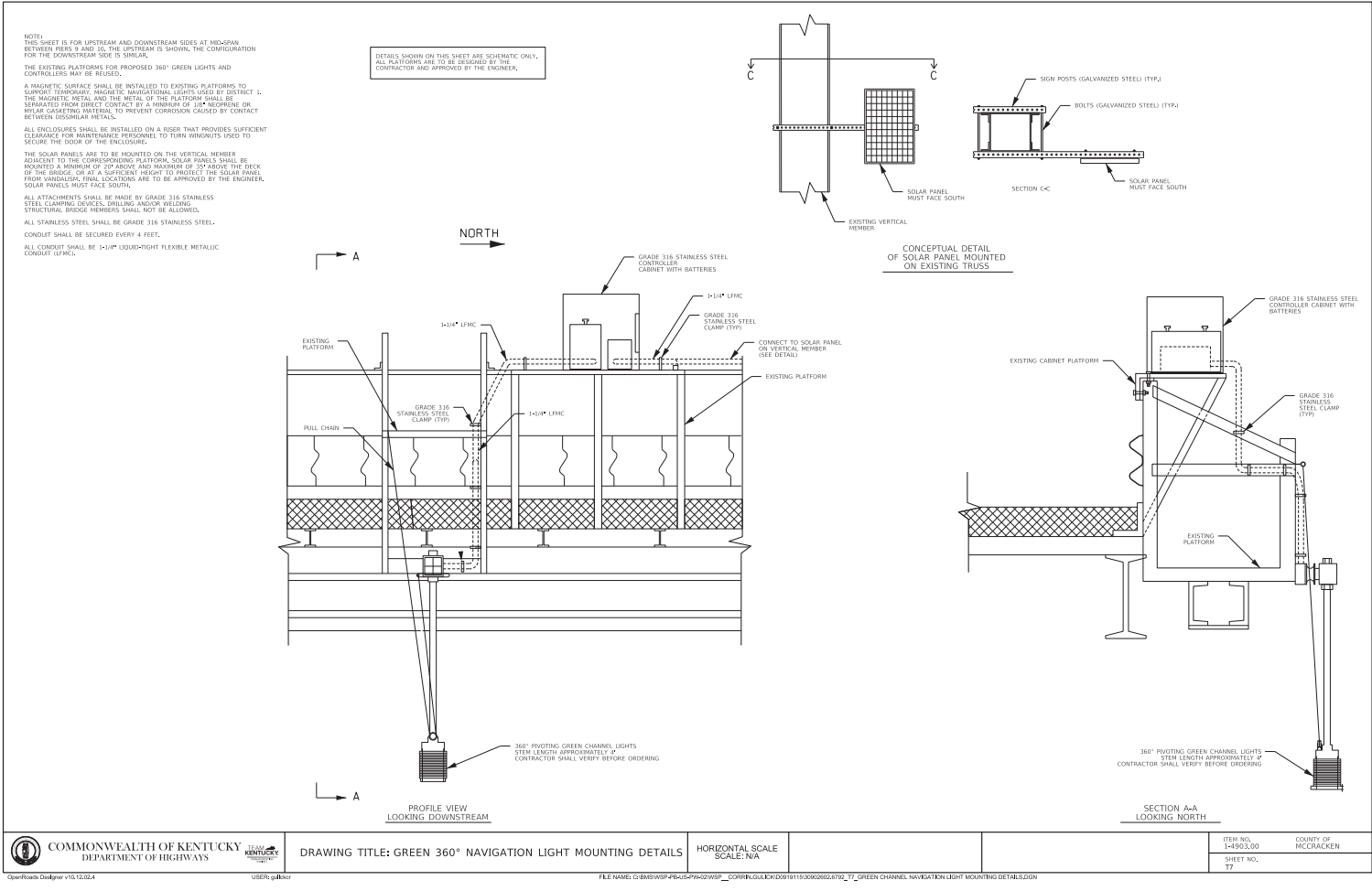


 COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	DRAWING TITLE: NAVIGATION LIGHTING SCHEMATIC	HORIZONTAL SCALE SCALE: N/A		ITEM NO. 1-4903.00 COUNTY OF MCCRACKEN
USER: USR010409				SHEET NO. TS

OpenRoads Designer v10.12.02.4

USER: USR010409

FILE NAME: C:\BRIWSP-45-PM4200\9115\NAVIGATION LIGHTING SCHEMATIC LAYOUT.DGN





Kentucky Transportation Cabinet

Division of Highway Design

TRAFFIC MANAGEMENT PLAN

12/2010

Page 1 of 6

County:

McCracken

Item No.:

1-4903

Federal Project No.:

n/a

Project Description:

UPGRADE NAVIGATIONAL LIGHTING FOR THE US 45 (IRVIN S COBB) BRIDGE.
073B00001N

Roadway Classification:

☒ Urban

☐ Rural

☐ Local

☐ Collector

☒ Arterial

☐ Interstate

ADT (2023) 4520

AM Peak Current _____

PM Peak Current _____

% Trucks 3.76

Project Designation:

☐ Significant

☒ Other: _____

Traffic Control Plan Design:

Taper and Diversion Design Speeds 25 mph

Minimum Lane Width 10'

Minimum Shoulder Width 2 with curb

Minimum Bridge Width 12'

Minimum Radius N/A

Maximum Grade N/A

Minimum Taper Length 104'

Minimum Intersection Level of Service N/A

Existing Traffic Queue Lengths N/A

Projected Traffic Queue Lengths N/A

Comments:

The route is off the NHS and is a AAA truck weight class.

Construction of the upgraded navigational lighting will be performed behind bridge closure as directed by engineer. Traffic shall be maintained in accordance with the most recent editions of the MUTCD and KYTC standard drawings.

Given this route is also the detour for the I-24 bridge construction, bridge closure is only allowed between November 15, 2025 and February 27, 2026 and as directed by the engineer. No other lane closures will be allowed.



Kentucky Transportation Cabinet
Division of Highway Design
TRAFFIC MANAGEMENT PLAN

Item No. 1-4903

Discussion:

1) Public Information Plan			
a) Prepare with assistance from <input checked="" type="checkbox"/> KYTC or <input type="checkbox"/> _____			
b) Identify Trip Generators		N/A	
f) Railroad Involvement			N/A
c) Identify Types of Road Users		N/A	
g) Address Pedestrians, Bikes Mass Transit			N/A
d) Public Information Message		N/A	
h) Address Timing, Frequency, Updates, Effectiveness of Plan			Referenced
e) Public Information Strategies to be used		Referenced	
i) Police & Other Emergency Services			Referenced



Kentucky Transportation Cabinet

Division of Highway Design

TRAFFIC MANAGEMENT PLAN

12/2010

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Item No. 1-4903.00

2) Temporary Traffic Control Plan (For Each Phase of Construction)			
Phase I			
Exposure Control Measures		Positive Protection Measures	
a) Is Road Closure Allowed Type:	Referenced	a) Address Drop Off Protection Criteria	N/A
b) Detour Conditions	Referenced	b) Temporary Barrier Requirements	Referenced
c) Working Hour Restrictions	Referenced	c) Evaluation of Existing Guardrail Conditions	N/A
d) Holiday or Special Event Work Restrictions	Referenced	d) Address Temporary Drainage	N/A
e) Evaluation of Intersection LOS	N/A	Uniformed Law Enforcement Officers	N/A
f) Evaluation of Queue Lengths	N/A	Payment for Traffic Control*	
g) Evaluation of User Costs and Incentives/Disincentives	N/A	a) Method of Project Bidding	Referenced
h) Address Pedestrians, Bikes, Mass Transit	N/A	b) Special Notes	Referenced
Work Vehicles and Equipment	Referenced	*Payment for traffic control items shall be in accordance with the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction	
Comments:			
<p>Contractor is to relay all public information through the District 1 PIO, Carrie Dillard (270) 898-2431. The District 1 PIO has a list of police and emergency services.</p> <p>Construction of the upgraded navigational lighting will be performed behind bridge closure as directed by engineer. Traffic shall be maintained in accordance with the most recent editions of the MUTCD and KYTC standard drawings.</p> <p>This route is the detour for the I-24 bridge construction, bridge closure is only allowed between November 15, 2025 and February 27, 2026 and as directed by the engineer. No other lane closures will be allowed.</p>			



Kentucky Transportation Cabinet
Division of Highway Design
TRAFFIC MANAGEMENT PLAN

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Item No. 1-4903.00

APPROVAL:

Project ManagerDate

Project Delivery and Preservation ManagerDate

Engineering Support ManagerDate

FHWA RepresentativeDate

Revisions to the TMP require review/approval by the signatories.



KENTUCKY TRANSPORTATION CABINET

Department of Highways



DIVISION OF RIGHT OF WAY & UTILITIES

RIGHT OF WAY CERTIFICATION

TC 62-226

Rev. 01/2016

Page 1 of 1

<input checked="" type="checkbox"/>	Original	<input type="checkbox"/>	Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #		COUNTY		PROJECT # (STATE)	PROJECT # (FEDERAL)
1-4903.00		McCracken		FD04 073 0045 012-013	
PROJECT DESCRIPTION					
Upgrade Navigational Lighting For The US 45 (Irvin S Cobb) Bridge - 073B0001N					
<input checked="" type="checkbox"/>	No Additional Right of Way Required				
Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.					
<input type="checkbox"/>	Condition # 1 (Additional Right of Way Required and Cleared)				
All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.					
<input type="checkbox"/>	Condition # 2 (Additional Right of Way Required with Exception)				
The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract					
<input type="checkbox"/>	Condition # 3 (Additional Right of Way Required with Exception)				
The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.					
Total Number of Parcels on Project		EXCEPTION (S) Parcel #		ANTICIPATED DATE OF POSSESSION WITH EXPLANATION	
Number of Parcels That Have Been Acquired					
Signed Deed					
Condemnation					
Signed ROE					
Notes/ Comments (Text is limited. Use additional sheet if necessary.)					
LPA RW Project Manager			Right of Way Supervisor		
Printed Name				Printed Name Austin Hart	
Signature				Signature 	
Date				Date 8/19/2025	
Right of Way Director			FHWA		
Printed Name				Printed Name	
Signature 		Digitally signed by Kelly Divine Date: 2025.08.20 06:54:24 -05'00'		Signature	
Date				Date	

UTILITIES AND RAIL CERTIFICATION NOTE

McCracken County
FD04 073 0045 012-013
Mile point: 12.900 TO 13.800
Upgrade Navigational Lighting For The US 45 (Irvin S Cobb) Bridge
ITEM NUMBER: 01-4903.00

PROJECT NOTES ON UTILITIES

Please Note: The information presented in this Utility Note is informational in nature and the information contained herein is not guaranteed.

The contractor will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs. The utility facilities as noted in the previous section(s) have been determined using data garnered by varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities defined may not be inclusive of all utilities in the project scope and are not Level A quality, unless specified as such. It is the contractor’s responsibility to verify all utilities and their respective locations before excavating.

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. The contractor is instructed to contact KY 811 for the location of existing underground utilities. Contact shall be made a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY 811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-

UTILITIES AND RAIL CERTIFICATION NOTE

<p>McCracken County FD04 073 0045 012-013 Mile point: 12.900 TO 13.800 Upgrade Navigational Lighting For The US 45 (Irvin S Cobb) Bridge ITEM NUMBER: 01-4903.00</p>

member facility owners, whom are to be contacted through their individual Protection Notification Center. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area. Non-compliance with these directives can result in the enforcement of penalties.

Utility coordination efforts determined that no significant utility relocation work is required to complete the project. Any work pertaining to these utility facilities is defined in the bid package and is to be carried out as instructed by the Kentucky Transportation Cabinet. The contractor will be responsible for any coordination or adjustments that are discussed or quantified in the proposal.

**NOTE: DO NOT DISTURB THE FOLLOWING FACILITIES LOCATED WITHIN THE PROJECT
DISTURB LIMITS**

Paducah Power System Fibernet – Communication

Comcast – CATV

Windstream Communications, LLC - Communication

The Contractor is fully responsible for protection of all utilities listed above

UTILITIES AND RAIL CERTIFICATION NOTE

McCracken County
FD04 073 0045 012-013
Mile point: 12.900 TO 13.800
Upgrade Navigational Lighting For The US 45 (Irvin S Cobb) Bridge
ITEM NUMBER: 01-4903.00

THE FOLLOWING FACILITY OWNERS ARE RELOCATING/ADJUSTING THEIR FACILITIES
WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

Not Applicable

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED
BY THE OWNER OR THEIR SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE
ROAD CONTRACT

Not Applicable

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED
BY THE ROAD CONTRACTOR AS INCLUDED IN THIS CONTRACT

Not Applicable

UTILITIES AND RAIL CERTIFICATION NOTE

<p>McCracken County FD04 073 0045 012-013 Mile point: 12.900 TO 13.800 Upgrade Navigational Lighting For The US 45 (Irvin S Cobb) Bridge ITEM NUMBER: 01-4903.00</p>
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RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☒ No Rail Involvement ☐ Rail Involved ☐ Rail Adjacent

UTILITIES AND RAIL CERTIFICATION NOTE

McCracken County
FD04 073 0045 012-013
Mile point: 12.900 TO 13.800
Upgrade Navigational Lighting For The US 45 (Irvin S Cobb) Bridge
ITEM NUMBER: 01-4903.00

AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact Name	Phone	Email
Paducah Power System FiberNet	1500 Broadway St, Paducah, KY 42001	Brent Shelton	(270) 575 4004	bshelton@paducahpower.com
Comcast	3620 James Sanders Blvd, Paducah, KY 42001	Christopher Seig	(270) 210 3499	christopher_seig@comcast.com
Windstream Communications, LLC	328 US-51, Bardwell, KY 42023	James Galvin	(270) 765 1818	james.galvin@windstream.net

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>

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.

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 administering agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

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.

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:
<https://www.eProcurement.ky.gov>.

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

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

EMPLOYEE RIGHTS UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

FEDERAL MINIMUM WAGE

\$7.25 PER HOUR

BEGINNING JULY 24, 2009

- OVERTIME PAY

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

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

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

No more than

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

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

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

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

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

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

For additional information:



1-866-4-USWAGE

(1-866-487-9243)

TTY: 1-877-889-5627



WWW.WAGEHOUR.DOL.GOV

PART IV

BID ITEMS

251027

Section: 0001 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	

Section: 0002 - SIGNING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0020	02562		TEMPORARY SIGNS	300.00	SQFT		\$	
0030	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		\$	
0040	06406		SBM ALUM SHEET SIGNS .080 IN	80.00	SQFT		\$	

Section: 0003 - LIGHTING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0050	04775		NAVIGATION LIGHT 360 DEG GREEN	2.00	EACH		\$	
0060	04776		NAVIGATION LIGHT 180 DEG RED	18.00	EACH		\$	
0070	04940		REMOVE LIGHTING	1.00	LS		\$	
0080	20410ED		MAINTAIN LIGHTING	1.00	LS		\$	
0090	21579EN		FLEX CONDUIT-1 1/4 IN	1,100.00	LF		\$	
0100	23365EC		LIGHTING-NAV MONITORING SYSTEM	1.00	LS		\$	
0110	24838EC		SOLAR POWERED NAV LIGHTING SYSTEM	20.00	EACH		\$	

Section: 0004 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0120	02569		DEMOBILIZATION	1.00	LS		\$	