



CALL NO. 355

CONTRACT ID. 224440

BOURBON COUNTY

FED/STATE PROJECT NUMBER FD04 009 068X 000-001

DESCRIPTION MAIN STREET (US 68X)

WORK TYPE SIGNS-LIGHTING-SIGNALS

PRIMARY COMPLETION DATE 7/31/2023

LETTING DATE: June 23,2022

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME June 23,2022. 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 - 07

CONTRACT ID - 224440

FD04 009 068X 000-001

COUNTY - BOURBON

PCN - 07009068X2201

FD04 009 068X 000-001

MAIN STREET (US 68X) (MP 0.243) SIGNAL IMPROVEMENTS AT THE INTERSECTION OF US 68X AND KY 1678 (MP 0.343), A DISTANCE OF 0.10 MILES.SIGNS-LIGHTING-SIGNALS SYP NO. 07-09028.00.

GEOGRAPHIC COORDINATES LATITUDE 38:11:53.84 LONGITUDE 84:16:06.80

ADT 13,662

COMPLETION DATE(S):

COMPLETED BY 07/31/2023

APPLIES TO ENTIRE PROJECT

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

Bidder must use the Department's 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 fax (502) 564-7299 or email to kytc.projectquestions@ky.gov. The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially

disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

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

April 30, 2018

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

Special Notes Applicable to Project – General Notes & Description of Work

CAUTION

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

LIDAR

All survey information was obtained from available KYTC Aerial LIDAR data and should be field verified as appropriate during construction and prior to incorporating the various project work items. Refer to the Special Note for Staking concerning staking operations required to control and construct the work.

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 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.

General Notes & Description of Work
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DESCRIPTION OF WORK

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

Signal Work: Work at this intersection will consist of installing signal heads with reflective backplates, signal poles and mast arms, signal controllers, and pedestrian signals. Removal of existing signal heads will be paid under the bid item "Remove Signal Equipment."

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

TRAFFIC CONTROL PLAN

TRAFFIC CONTROL GENERAL

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

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

PROJECT PHASING & CONSTRUCTION PROCEDURES

At locations with three or more lanes, maintain one lane of traffic in each direction at all times during construction. At locations with two lanes, maintain alternating one-way traffic during construction and provide a minimum clear lane width of 9 feet. 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.

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:

Independence Day	7 am Saturday, July 2, 2022 – 11 pm Monday, July 4, 2022
Labor Day Weekend	3 pm Friday, September 2, 2022 – 8 pm Monday, September 5, 2022
Thanksgiving Holiday	3 pm Wednesday, November 23, 2022 – 8 pm Sunday, November 27, 2022
Christmas Holiday	3 pm Friday, December 23, 2022 – 8 pm Sunday, December 25, 2022
New Year's Day Holiday	7 am Saturday, December 31, 2022 – 8 pm Sunday, January 1, 2023
Easter Weekend	3 pm Friday, April 7, 2023 – 8 pm Sunday, April 9, 2023
Memorial Day Weekend	3 pm Friday, May 26, 2023 – 8 pm Monday, May 29, 2023
Independence Day	7 am Saturday, July 1, 2023 – 11 pm Tuesday, July 4, 2023

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

Normal Workday Rush Hours

Monday-Friday 7:00 AM – 9:00 AM, and 3:00 PM – 6:00 PM, daily

Unless otherwise approved by the Engineer, no lane closures shall be allowed before 9:00 AM during weekdays and no lane closures shall be allowed after dusk. The Contractor shall submit proposed days of lane closures to the Engineer at least 14 calendar days in advance for approval.

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

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The Department will provide public notification regarding approved 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 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 at locations determined by the Engineer. The Engineer may vary the designated locations as the work progresses. The Engineer will determine the messages to be displayed. In the event of damage or mechanical/electrical failure, repair or replace the Changeable Message Sign within 8 hours. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Changeable Message Signs only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure for payment any replacements for damaged Changeable Message Signs or any changeable message signs the Engineer directs to be replaced due to poor condition or readability. Retain possession of the Changeable Message Signs upon completion of the work.

BARRICADES

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

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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

TRAFFIC SIGNAL LOOPS

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

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

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

<u>Word</u>	<u>Abbrev</u>	<u>Example</u>
Access	ACCS	ACCIDENT AHEAD/ USE ACCS RD NEXT RIGHT
Alternate	ALT	ACCIDENT AHEAD/ USE ALT RTE NEXT RIGHT
Avenue	AVE	FIFTH AVE CLOSED/ DETOUR NEXT LEFT
Blocked	BLKD	FIFTH AVE BLKD/ MERGE LEFT
Boulevard	BLVD	MAIN BLVD CLOSED/ USE ALT RTE
Bridge	BRDG	SMITH BRDG CLOSED/ USE ALT RTE
Cardinal Directions	N, S, E, W	N I75 CLOSED/ DETOUR EXIT 30
Center	CNTR	CNTR LANE CLOSED/ MERGE LEFT
Commercial	COMM	OVRSZ COMM VEH/ USE I275
Condition	COND	ICY COND POSSIBLE
Congested	CONG	HVY CONG NEXT 3 MI
Construction	CONST	CONST WORK AHEAD/ EXPECT DELAYS
Downtown	DWNTN	DWNTN TRAF USE EX 40
Eastbound	E-BND	E-BND I64 CLOSED/ DETOUR EXIT 20
Emergency	EMER	EMER VEH AHEAD/ PREPARE TO STOP
Entrance, Enter	EX, EXT	DWNTN TRAF USE EX 40
Expressway	EXPWY	WTRSN EXPWY CLOSED/ DETOUR EXIT 10
Freeway	FRWY, FWY	GN SYNDR FWY CLOSED/ DETOUR EXIT 15
Hazardous Materials	HAZMAT	HAZMAT IN ROADWAY/ ALL TRAF EXIT 25
Highway	HWY	ACCIDENT ON AA HWY/ EXPECT DELAYS
Hour	HR	ACCIDENT ON AA HWY/ 2 HR DELAY
Information	INFO	TRAF INFO TUNE TO 1240 AM
Interstate	I	E-BND I64 CLOSED/ DETOUR EXIT 20
Lane	LN	LN CLOSED MERGE LEFT
Left	LFT	LANE CLOSED MERGE LFT
Local	LOC	LOC TRAF USE ALT RTE
Maintenance	MAINT	MAINT WRK ON BRDG/ SLOW
Major	MAJ	MAJ DELAYS I75/ USE ALT RTE
Mile	MI	ACCIDENT 3 MI AHEAD/ USE ALT RTE
Minor	MNR	ACCIDENT 3 MI MNR DELAY
Minutes	MIN	ACCIDENT 3 MI/ 30 MIN DELAY
Northbound	N-BND	N-BND I75 CLOSED/ DETOUR EXIT 50
Oversized	OVRSZ	OVRSZ COMM VEH/ USE I275 NEXT RIGHT
Parking	PKING	EVENT PKING NEXT RGT
Parkway	PKWY	CUM PKWAY TRAF/ DETOUR EXIT 60
Prepare	PREP	ACCIDENT 3 MI/ PREP TO STOP
Right	RGT	EVENT PKING NEXT RGT
Road	RD	HAZMAT IN RD/ ALL TRAF EXIT 25
Roadwork	RDWK	RDWK NEXT 4 MI/ POSSIBLE DELAYS
Route	RTE	MAJ DELAYS I75/ USE ALT RTE
Shoulder	SHLDR	SHLDR CLOSED NEXT 5 MI
Slippery	SLIP	SLIP COND POSSIBLE/ SLOW SPD
Southbound	S-BND	S-BND I75 CLOSED/ DETOUR EXIT 50
Speed	SPD	SLIP COND POSSIBLE/ SLOW SPD

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Standard Abbreviations (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 NO USE THESE ABBREVIATIONS:

<u>Abbrev</u>	<u>Intended Word</u>	<u>Word Erroneously Given</u>
ACC	Accident	Access (Road)
CLRS	Colors	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.

<u>Reason/Problem</u>	<u>Action</u>
ACCIDENT	ALL TRAFFIC EXIT RT
ACCIDENT/XX MILES	AVOID DELAY USE XX
XX ROAD CLOSED	CONSIDER ALT ROUTE
XX EXIT CLOSED	DETOUR
BRIDGE CLOSED	DETOUR XX MILES
BRIDGE/(SLIPPERY, ICE, ETC.)	DO NOT PASS
CENTER/LANE/CLOSED	EXPECT DELAYS
DELAY(S), MAJOR/DELAYS	FOLLOW ALT ROUTE
DEBRIS AHEAD	KEEP LEFT
DENSE FOG	KEEP RIGHT
DISABLED/VEHICLE	MERGE XX MILES
EMER/VEHICLES/ONLY	MERGE LEFT
EVENT PARKING	MERGE RIGHT
EXIT XX CLOSED	ONE-WAY TRAFFIC
FLAGGER XX MILES	PASS TO LEFT

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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
TRAFFIC SLOWS
TRUCK CROSSING
TRUCKS ENTERING
TOW TRUCK AHEAD
UNEVEN LANES
WATER ON ROAD
WET PAINT
WORK ZONE XX MILES
WORKERS AHEAD

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

SPECIAL NOTE FOR TRAFFIC SIGNAL LOOP DETECTORS

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

1.1 Pre-bid Requirements. Conform to Subsection 723.03.17

2.0 MATERIALS. Except as specified herein, furnish materials in accordance with Subsection 732.02 and Section 835. Provide for materials to be sampled and tested in accordance with the Department's Sampling Manual. Make materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing, unless otherwise specified in this Special Note.

2.1 Maintain and Control Traffic. See Traffic Control Plan.

2.2 Sand. Furnish natural sand meeting the requirements of Subsection 804.04.01.

2.3 Seeding. Furnish Seed Mix Type I.

2.4 Loop Saw Slot and Fill. Furnish loop sealant, backer rod, and non-shrink grout according to the Saw Slot Detail.

2.5 Junction Boxes. Furnish junction box type B, #57 aggregate, and geotextile filter type IV according to junction box detail.

2.6 Cable No. 14/1 Pair (Lead-in). Furnish cable that is specified in Section 835. Cable shall be ran splice free. This shall include splice kits to connect to the loop wire.

2.7 Conduit. Furnish and install appropriate conduit from transitions to the roadway, junction boxes and poles. See details below.

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

3.1 Testing. Conform to Subsection 723.03.17 (A)

3.2 Coordination. Conform to Subsection 723.03.17 (B)

3.3 Connection. Conform to Subsection 723.03.17 (C)

3.4 Maintain and Control Traffic. See Traffic Control Plan.

3.5 Milling. Conform to Subsection 723.03.17 (F)

3.6 Loop Saw Slot and Fill. Conform to Subsection 723.03.13 (A).

Traffic Signal Loop Detectors
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3.7 Backfilling and Disturbed Areas. Conform to Subsection 723.03.11.

3.8 Removal. Conform to Subsection 723.03.16.

3.9 Property/Roadway Damage. Conform to Subsection 723.03.17 (J).

3.10 Right-of-Way Limits. Conform to Subsection 723.03.17 (K).

3.11 Utility Clearance. Conform to Subsection 716.03.01.

3.12 Control. 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 permit other contractors, state forces, 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 each other’s work will be reduced to a minimum. The Contractor agrees to make no claims against the Department for additional compensation due to delays or other conditions created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to ensure the completion of the work in general harmony and in a satisfactory manner, and the Engineer’s decision shall be final and binding upon the Contractor.

3.13 Bore and Jack. Conform to Subsection 723.03.06 (I).

3.14 Open Cut Roadway. Conform to Subsection 723.03.06 (I).

4.0 MEASUREMENT. See Subsection 723.04 for bid item notes. Additional bid items include the following:

4.1 Loop Test. The Department will measure the quantity as each individual unit loop tested. The Department will not measure disconnection, reconnection, traffic control, re-splicing per specifications, before and after testing per note above, and any associated hardware for payment and will consider them incidental to this item of work.

4.2 Remove Signal Equipment. The department will measure the quantity by each. The department will not measure backfilling and the disposal or transportation of equipment and materials associated with any structural or electrical component of the signal system including, but not limited to pole bases, poles, junction boxes, cabinets, and wood poles for payment and will consider them incidental to this item of work.

5.0 PAYMENT. The Department will make payment for the completed and accepted quantities of listed items according to Subsection 723.05 in addition to the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
Conduit 1”	4792	Linear Foot
PVC Conduit – 1 ¼ inch – sch 80	24900EC	Linear Foot

Traffic Signal Loop Detectors
Page 3 of 9

PVC Conduit – 2 inch – sch 80	24901EC	Linear Foot
Conduit 2”	4795	Linear Foot
Electrical Junction Box type B	4811	Each
Loop Test	24963ED	Each
Trenching and Backfilling	4820	Linear Foot
Loop Wire	4830	Linear Foot
Cable-No. 14/1 Pair	4850	Linear Foot ¹
Loop Saw Slot and Fill	4895	Linear Foot ¹
Bore and Jack Conduit	21543EN	Linear Foot ³
Open Cut Roadway	4821	Linear Foot ³
Remove Signal Equipment	24955ED	each

The Department will consider payment as full compensation for all work required under these notes and the Standard Specifications.

Contrary to section 723:

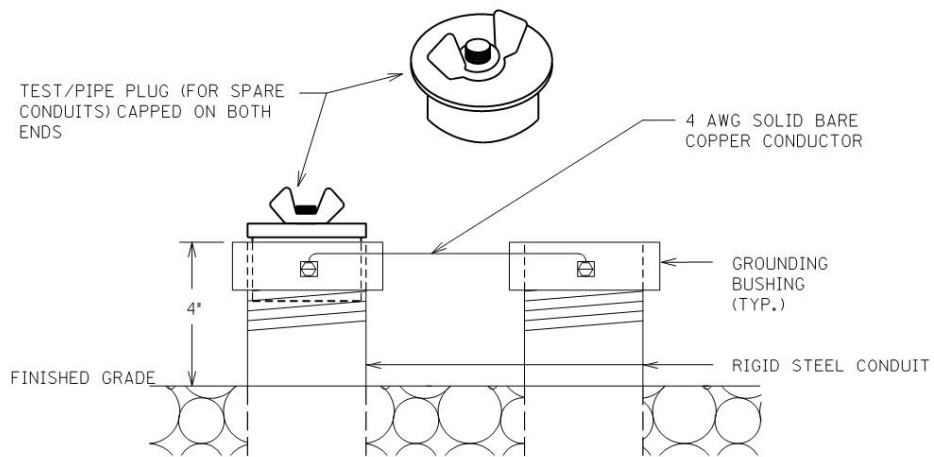
SUBSECTION: 03.13 Loop Installation.

REVISION: Replace first sentence note with the following:

twist unshielded loop wire (imsa 51-7) with 3 to 5 turns from the start of homerun to the inside conduit, junction box, cabinet, or pole. Twist unshielded loop wires (imsa 51-7) with 3 to 5 turns per foot from the start of the homerun to the junction box, cabinet, or pole. Slot can be widen to .5" to .625" to help with the installation of the twisted wire.

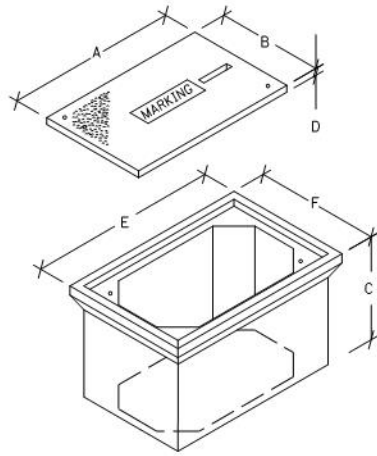
Traffic Signal Loop Detectors

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

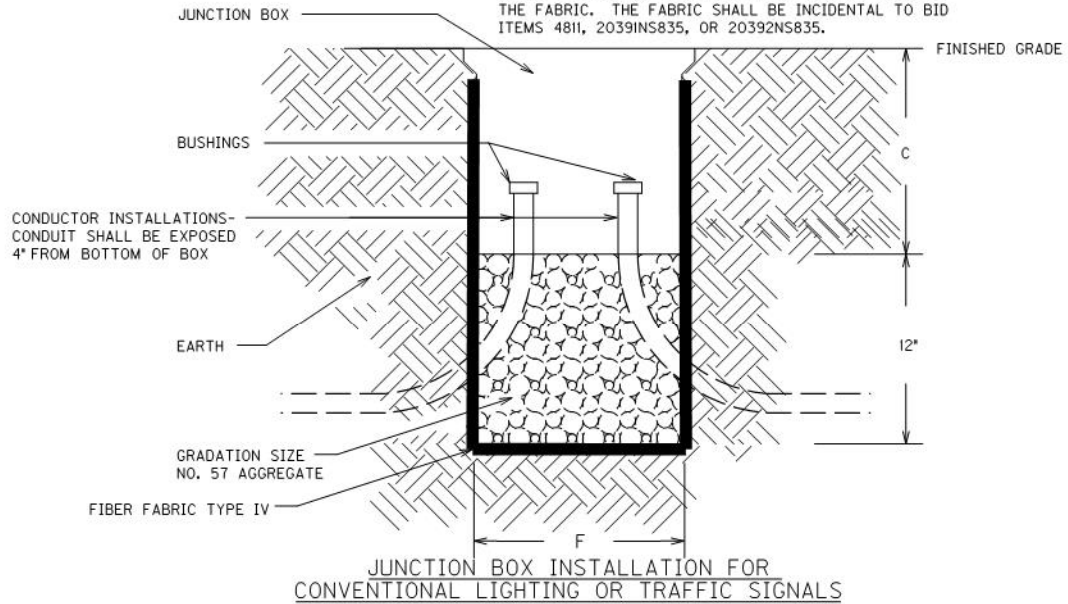
Traffic Signal Loop Detectors
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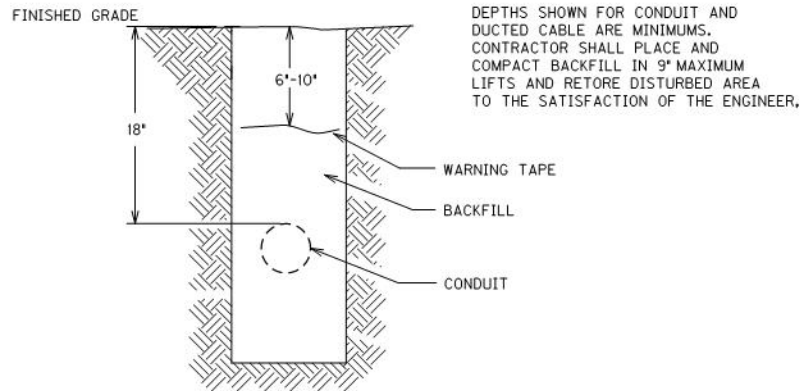
JUNCTION BOX DIMENSIONS (NOMINAL)						
	A	B	C	D	E	F
TYPE A	23"	14"	27"	2"	25"	15"
TYPE B	18"	11"	12"	1 3/4"	20"	13"
TYPE C	36"	24"	30"	3"	38"	26"

• MINIMUM
NOTE: STACKABLE BOXES ARE PERMITTED

BEFORE THE INSTALLATION OF THE #57 AGGREGATE AND JUNCTION BOX, THE CONTRACTOR SHALL INSTALL GEOTEXTILE FILTER FABRIC TYPE IV IN THE HOLE. THE FABRIC SHALL EXTEND TO JUST BELOW THE LIP OF THE JUNCTION BOX AND SHALL BE CONTINUOUSLY ADHERED TO THE EXTERIOR OF THE BOX WITH ADHESIVE. ANY LOCATIONS WHERE CONDUITS ENTER THE BOX, THE FABRIC SHALL BE 'X CUT' ONLY AS MUCH AS NECESSARY TO ALLOW PASSAGE OF EACH INDIVIDUAL CONDUIT THROUGH THE FABRIC. THE FABRIC SHALL BE INCIDENTAL TO BID ITEMS 481I, 2039INS835, OR 20392NS835.



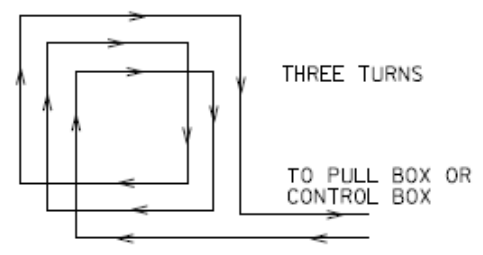
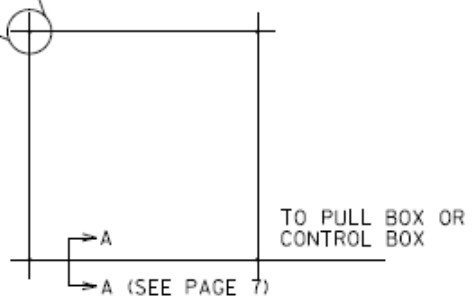
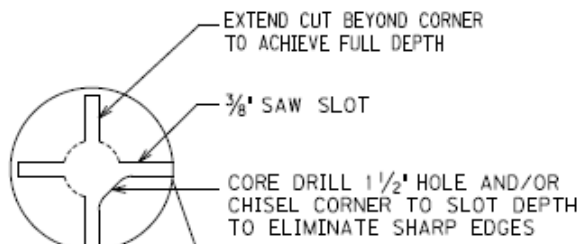
JUNCTION BOX INSTALLATION FOR CONVENTIONAL LIGHTING OR TRAFFIC SIGNALS



CONDUIT AND WARNING TAPE TRENCH

Traffic Signal Loop Detectors

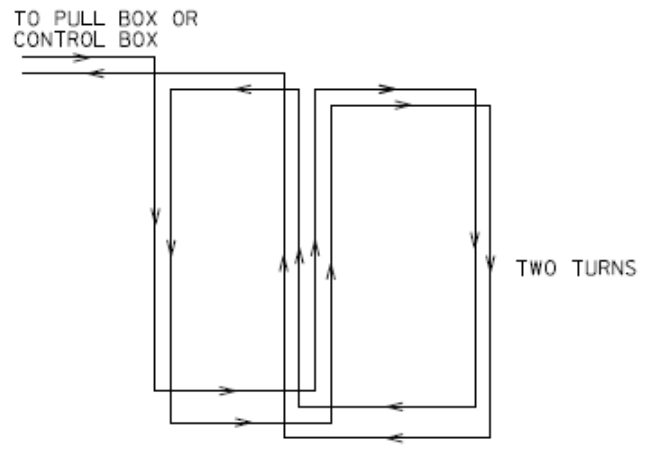
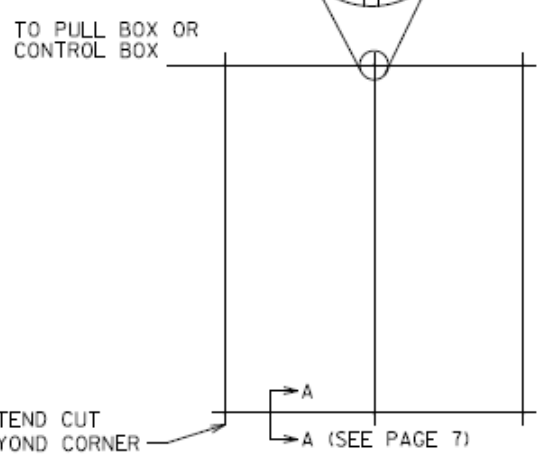
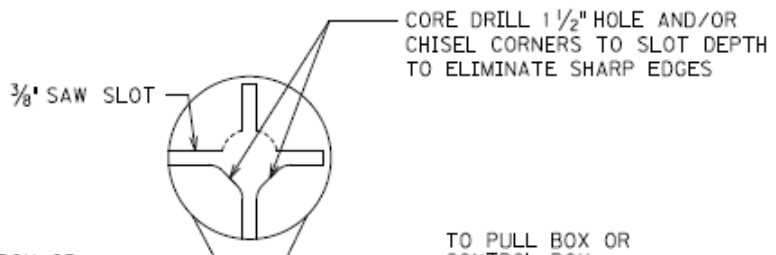
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SAW CUT PLAN

WIRING PLAN

6'X6' LOOP

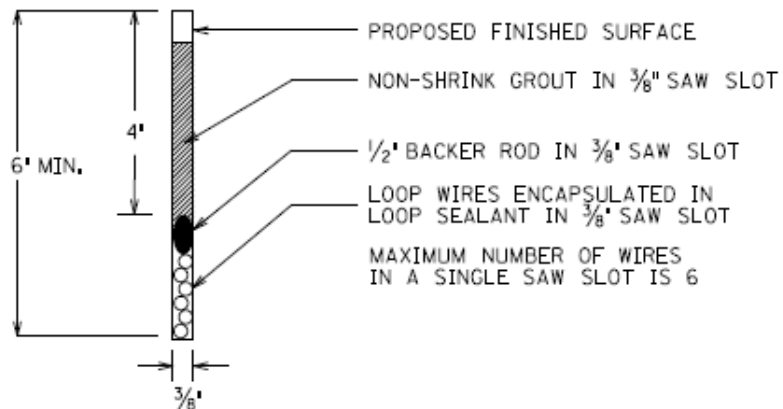


SAW CUT PLAN

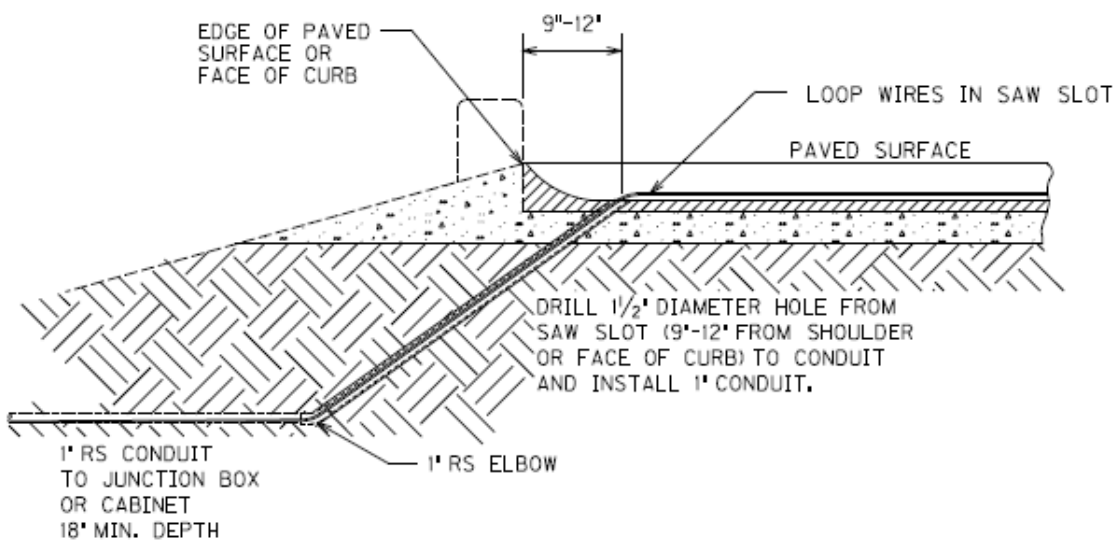
WIRING PLAN

6'X30' QUADRAPOLE LOOP

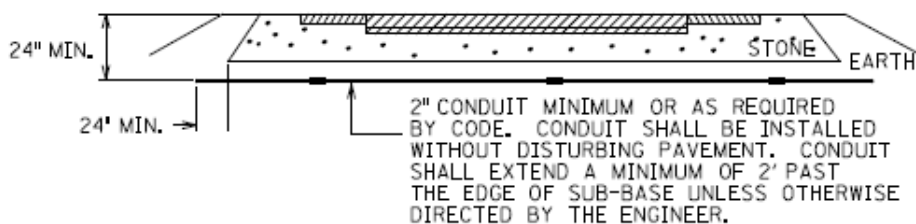
Traffic Signal Loop Detectors
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SECTION A-A (SAW SLOT DETAIL)



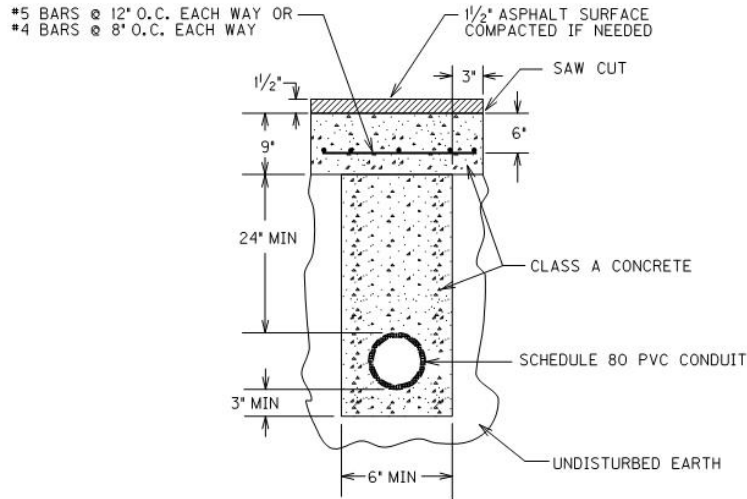
SAW SLOT EDGE OF PAVEMENT TRANSITION



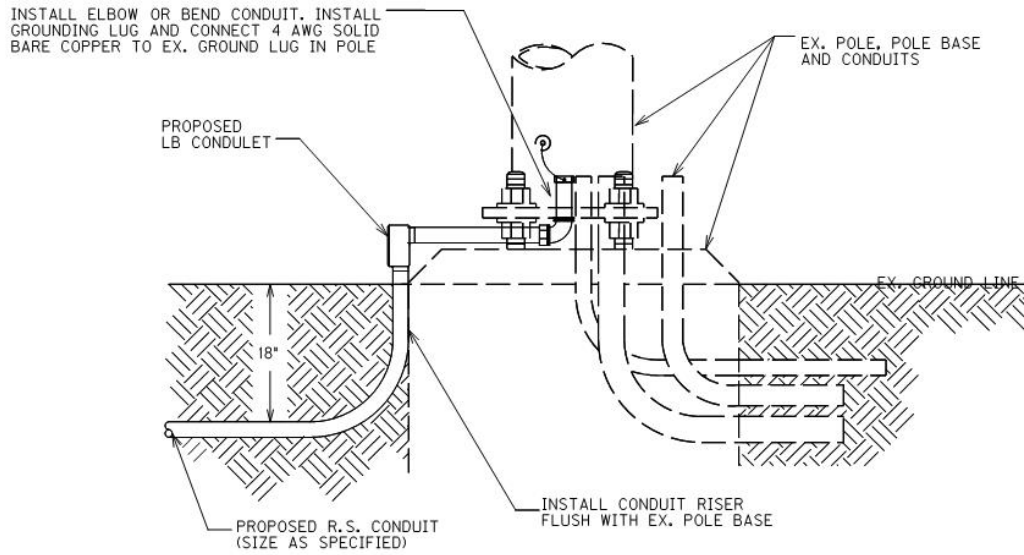
CONDUIT UNDER EXISTING PAVEMENT DETAIL

Traffic Signal Loop Detectors

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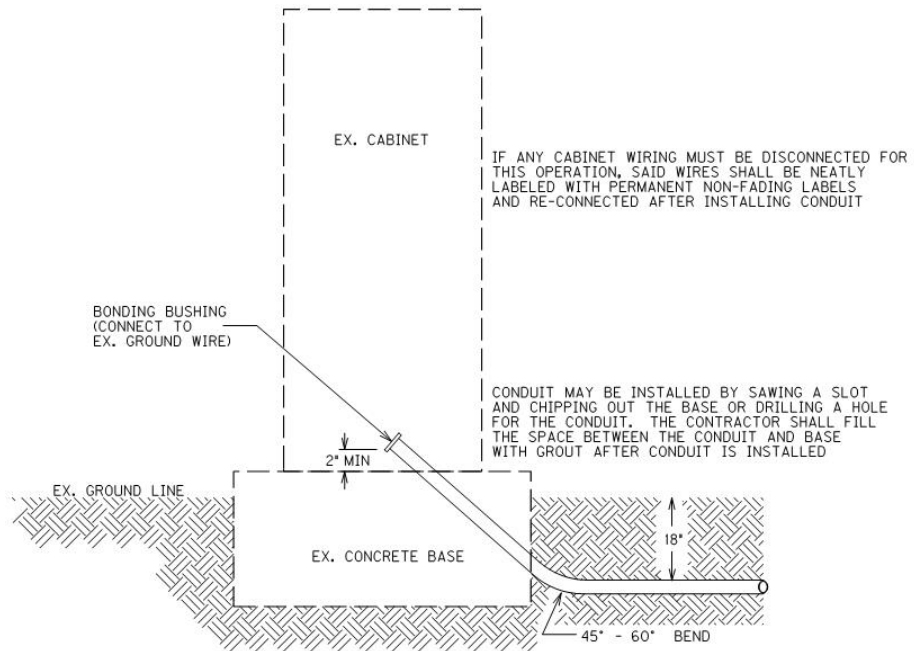
OPEN CUT PAVEMENT DETAIL



CONDUIT INSTALLATION IN EX. POLE BASE

Traffic Signal Loop Detectors

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CONDUIT INSTALLATION IN EX. CABINET BASE

Update: 4-5-2022

	KENTUCKY TRANSPORTATION CABINET Department of Highways DIVISION OF RIGHT OF WAY & UTILITIES	TC 62-226 Rev. 01/2016 Page 1 of 1
RIGHT OF WAY CERTIFICATION		

<input checked="" type="checkbox"/>	Original	<input type="checkbox"/>	Re-Certification	RIGHT OF WAY CERTIFICATION			
ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)				
7-9028.00	Bourbon	FD04 009 068X 000-001	N/A				
PROJECT DESCRIPTION							

Safety improvements on US 68X @ KY-1678 at Bourbon County Schools

<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)
--------------------------	--

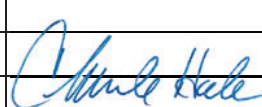
The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, 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	0	EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Number of Parcels That Have Been Acquired			
Signed Deed	0		
Condemnation	0		
Signed ROE	0		

Notes/ Comments (Use Additional Sheet if necessary)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Cecil Smith
Signature		Signature	Cecil D. Smith <small>Digitally signed by Cecil D. Smith Date: 2022.03.21 08:56:18 -04'00'</small>
Date		Date	3/21/2022
Right of Way Director		FHWA	
Printed Name	2022.03.22	Printed Name	
Signature	 23:05:36	Signature	
Date	-04'00'	Date	

UTILITIES AND RAIL CERTIFICATION NOTE

Bourbon County
FD04 009 068X 000-001
Safety Improvements on US 68X at KY 1678 School Safety Project
Item No. 7-9028.00

GENERAL PROJECT NOTES ON UTILITIES

For all projects over 2000 linear feet, which are defined as a "Large Project" in KRS 367.4903(18), the awarded contractor shall initially mark the first 2000 linear feet minimally of proposed excavation or construction boundaries of the project to be worked using the procedure set forth in KRS 367.4909(9)(k). This temporary field locating of the project excavation boundary shall take place prior to submitting an excavation location request to the underground utility protection Kentucky Contact Center. For large projects, the awarded contractor shall work with the impacted utilities to determine when additional white lining of the remainder of the project site will take place. This provision shall not alter or relieve the awarded contractor from complying with requirements of KRS 367.4905 to 367.4917 in their entirety.

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/her activities. The contractor will coordinate his/her 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-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.

UTILITIES AND RAIL CERTIFICATION NOTE

Bourbon County
FD04 009 068X 000-001
Safety Improvements on US 68X at KY 1678 School Safety Project
Item No. 7-9028.00

NOTE: DO NOT DISTURB THE FOLLOWING UTILITIES LOCATED WITHIN THE PROJECT DISTURB LIMITS

There are no known utility relocations within the project limits. If an unknown utility is encountered, the contractor will be responsible for arranging an on-site meeting with the utility owner/representative(s) and the Engineer to discuss potential impacts and solutions to either avoid the utility or relocate the utility. Depending on the solution selected, the Engineer will determine whether or not additional contract time is appropriate.

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

THE FOLLOWING COMPANIES ARE RELOCATING/ADJUSTING THEIR UTILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

None

THE FOLLOWING COMPANIES HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE COMPANY OR THE COMPANY'S SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT

None

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

None

RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

No Rail Involvement **Rail Involved** **Rail Adjacent**

UTILITIES AND RAIL CERTIFICATION NOTE

Bourbon County
FD04 009 068X 000-001
Safety Improvements on US 68X at KY 1678 School Safety Project
Item No. 7-9028.00

AREA UTILITIES CONTACT LIST

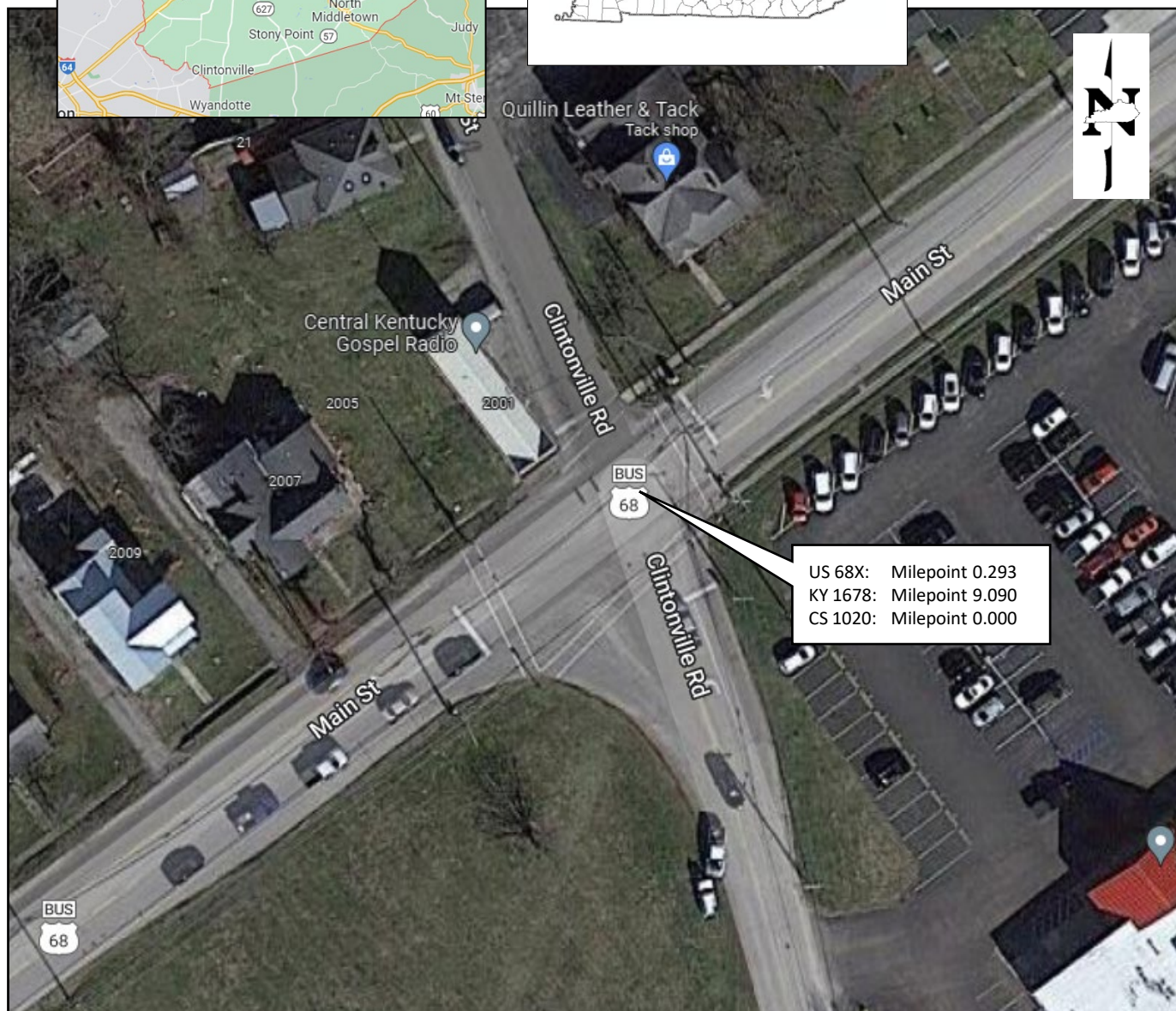
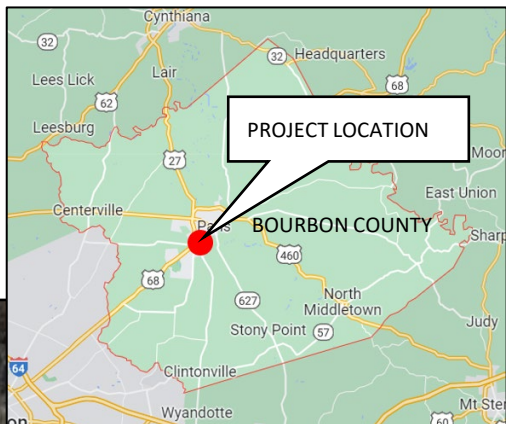
<u>Utility Company/Agency</u>	<u>Contact Name</u>	<u>Contact Information</u>
1. AT&T KY	Frank Ambrose	502 867 8240
2. Kentucky Utilities	Caroline Justice	502 627 3708
3. Columbia Gas of KY	David Lemmons	859 288 0249
4. City of Paris	Mike Asalon	859 987 2110
5. Kentucky Wired	Roger Castle	859 229 5403
6.		
7.		

NOTE: The Utilities Contact List is provided as informational only, and may not be a complete list of all Utility Companies with facilities in the project area.

COUNTY OF	ITEM NO.
BOURBON	7-9028.00

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS BOURBON COUNTY

US 68X AT KY 1678
7-9028.00



VICINITY MAP

SHEET NO.	ITEM NO.
1	7-9028-00
COUNTY OF	BOURBON

CONSTRUCTION AND MEASUREMENT NOTES THAT ARE CONTRARY TO SECTION T23
 SUBSECTION 03.02 POLES AND BASES INSTALLATION, B)
 REVISION: REPLACE ENTIRE TABLE WITH THE FOLLOWING:

MAXIMUM SERVICE FORCES	DRILLED SHAFT DATA						VERTICAL BARS TOTAL	TIES OR SPIRAL BAR SIZE	SPACING OR PITCH (IN.)
	DIAMETER (IN.)	DEPTH (FEET)		ROCK	SOIL	ROCK			
		< 21'	21' - 42'						
10-18.9	16	6	6.5	6	6	8	4	4	
20-37.8	16	6	6.5	6	6	8	4	4	
30-56.7	16	6	6.5	6	6	8	4	4	
40-75.6	16	6	6.5	6	6	8	4	4	
50-94.5	16	6	6.5	6	6	8	4	4	
60-113.4	16	6	6.5	6	6	8	4	4	
70-132.3	16	6	6.5	6	6	8	4	4	
80-151.2	16	6	6.5	6	6	8	4	4	
90-170.1	16	6	6.5	6	6	8	4	4	
100-189	16	6	6.5	6	6	8	4	4	
110-207.9	16	6	6.5	6	6	8	4	4	
120-226.8	16	6	6.5	6	6	8	4	4	
130-245.7	16	6	6.5	6	6	8	4	4	
140-264.6	16	6	6.5	6	6	8	4	4	
150-283.5	16	6	6.5	6	6	8	4	4	
160-302.4	16	6	6.5	6	6	8	4	4	
170-321.3	16	6	6.5	6	6	8	4	4	
180-340.2	16	6	6.5	6	6	8	4	4	
190-359.1	16	6	6.5	6	6	8	4	4	
200-378	16	6	6.5	6	6	8	4	4	
210-396.9	16	6	6.5	6	6	8	4	4	
220-415.8	16	6	6.5	6	6	8	4	4	
230-434.7	16	6	6.5	6	6	8	4	4	
240-453.6	16	6	6.5	6	6	8	4	4	
250-472.5	16	6	6.5	6	6	8	4	4	
260-491.4	16	6	6.5	6	6	8	4	4	
270-510.3	16	6	6.5	6	6	8	4	4	
280-529.2	16	6	6.5	6	6	8	4	4	
290-548.1	16	6	6.5	6	6	8	4	4	
300-567	16	6	6.5	6	6	8	4	4	

SUBSECTION: 03.15 LOOP INSTALLATION.
 REPLACE FIRST SENTENCE WITH THE FOLLOWING:
 THIS UNSHIELDED LOOP WIRE (MESA 51-71) WITH 3 TO 5 TURNS PER FOOT FROM THE POINT OF ATTACHMENT TO THE POINT OF INSTALLATION OF THE TWISTED WIRE.
 CAN BE WIDEN TO 1/2" TO 5/8" TO HELP WITH THE INSTALLATION OF THE TWISTED WIRE.

SUBSECTION: 04.22 REMOVE SIGNAL EQUIPMENT (CONSTRUCTION ONLY)
 REPLACE ENTIRE TABLE WITH THE FOLLOWING:
 THE DEPARTMENT WILL MEASURE THE QUANTITY BY EACH. THE DEPARTMENT WILL NOT MEASURE BACKFILLING AND THE DISPOSAL OR TRANSPORTATION OF EQUIPMENT AND MATERIALS ASSOCIATED WITH ANY STRUCTURAL OR ELECTRICAL COMPONENT OF THE ROSES, CABINETS, JUNCTION BOXES, AND WOOD POLES FOR PAYMENT AND WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK.

THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION, AND OTHER SPECIAL NOTES AND SPECIFICATIONS WILL APPLY ON THIS PROJECT. SEE SECTION 706, 723, AND 112 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. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PICKING UP MATERIALS FOR INSTALL ITEMS AT KYTC'S DIVISION OF EQUIPMENT WAREHOUSE (1239 WILKINSON BOULEVARD, FRANKFORT, KY 40622). THE FOLLOWING PROCEDURES SHALL BE FOLLOWED FOR MATERIAL RELEASE. FAILURE TO FOLLOW THESE PROCEDURES MAY RESULT IN LONG DELAYS OR REFUSAL TO DISTRIBUTE MATERIALS UPON ARRIVAL.

1. CONTRACTOR SHALL SECURE THE SIGNATURES OF KYTC'S PROJECT ENGINEER AND THE ELECTRICAL CONTRACTOR'S FOREMAN ON THE PROJECT MATERIALS RELEASE FORM. IF THE RELEASE FORM IS NOT IN THE PROPOSAL, CONTACT TED SWANSEGAR OR KERRY ROBERTS WITH THE DIVISION OF TRAFFIC OPERATIONS BY PHONE (502-782-5540/502-782-5536) OR EMAIL (TED.SWANSEGAR@KYTC.GOV/KERRY.ROBERTS@KYTC.GOV).
2. CONTRACTOR SHALL CONTACT THE WAREHOUSE TO PREARRANGE PICK UP OF MATERIALS. CONTRACTOR SHALL EMAIL THE PROJECT MATERIALS RELEASE FORM WITH REQUIRED SIGNATURES TO THE WAREHOUSE AT KIM.STAMPER@KYTC.GOV AND SHALL NOTIFY THE WAREHOUSE BY PHONE (502-782-5540/502-782-5536) OR EMAIL (KIM.STAMPER@KYTC.GOV).
3. CONTRACTOR SHALL ALSO CONTACT THE SIGNAL SYSTEM BRANCH OF THE DIVISION OF TRAFFIC OPERATIONS BY PHONE (502-782-5543/502-782-5547) OR EMAIL (JOE.THOMPSON@KYTC.GOV/LARRY.IRISH@KYTC.GOV) AT LEAST TWO (2) WORKING DAYS PRIOR TO ARRIVAL TO FACILITATE PROGRAMMING OF ROUTERS.
4. CONTRACTOR SHALL ARRIVE AT THE KYTC'S DIVISION OF EQUIPMENT WAREHOUSE (1239 WILKINSON BOULEVARD, FRANKFORT, KY 40622) AT THE PREARRANGED DATE/TIME FOR MATERIAL PICK UP. TO FACILITATE THIS PROCESS, ENSURE CONTRACTOR'S DELIVERY DRIVER HAS A COPY OF THE PROJECT MATERIALS RELEASE FORM WITH THE REQUIRED SIGNATURES.

ADD SENTENCE TO SECTION 835.17: ALL WIRE SHALL HAVE WORDING ADDED TO THE OUTER JACKET THAT STATES: "PROPERTY OF KENTUCKY TRANSPORTATION CABINET 502 564 0500".

MEASUREMENT NOTES THAT ARE IN ADDITION TO SECTION T23

INSTALL SIGNAL CONTROLLER TYPE ATC. THE DEPARTMENT WILL MEASURE THE QUANTITY AS EACH INDIVIDUAL UNIT INSTALLED. THE DEPARTMENT WILL NOT MEASURE THE CONCRETE BASE, MOUNTING THE CABINET, CONNECTING THE SIGNAL AND DETECTORS, EXCAVATION, BACKFILLING, RESTORATION, ANY NECESSARY POLE MOUNTING HARDWARE, ELECTRICAL SERVICE, ELECTRICAL INSPECTION FEES, AND PAYMENT FOR THE PROJECT MATERIALS RELEASE FORM. THE DEPARTMENT WILL ALSO NOT MEASURE CONNECTING THE INDUCTION LOOP AMPLIFIERS, PEDESTRIAN ISOLATORS, LOAD SWITCHES, MODEL 400 MODEM CARD FOR PAYMENT AND WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK. THE DEPARTMENT WILL ALSO NOT MEASURE FURNISHING AND INSTALLING ELECTRICAL SERVICE CONDUCTORS, CONDUITS, ANCHORS, METER BASE, FUSED CUTOFF, FUSES, GROUND RODS, GROUND LUGS, AND GROUND WIRES FOR PAYMENT AND WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK.

TRAFFIC SIGNAL ESTIMATE OF QUANTITIES

TOTAL UNITS	CODE	ITEM DESCRIPTION
15	LIN FT 4792	CONDUIT 1 INCH
120	LIN FT 4793	CONDUIT 1 1/4 INCH
365	LIN FT 4795	CONDUIT 2 INCH
230	LIN FT 4820	TRENCHING AND BACKFILLING
1,425	LIN FT 4830	LOOP WIRE
1,370	LIN FT 4844	CABLE-NO. 14/2C
500	LIN FT 4850	CABLE-NO. 14/7 PAIR
590	LIN FT 4895	LOOP SAW SLOT AND FILL
1	EACH 2495ed	REMOVE SIGNAL EQUIPMENT
8	EACH 2008NSB35	INSTALL PEDESTRIAN HEAD LED
8	EACH 2018NSB35	INSTALL SIGNAL-3 SECTION LED
2	EACH 2026ESB35	INSTALL SIGNAL-4 SECTION LED
1	EACH 2039NSB35	INSTALL COORDINATING UNIT
4	EACH 4811	ELECTRICAL JUNCTION BOX TYPE B
300	LIN FT 21543EN	BORE AND JACK CONDUIT
8	LIN FT 21743NN	INSTALL PEDESTRIAN DETECTOR
3	EACH 4881	MAST ARM POLE
8.77	CU TD 2325TEN	TRAFFIC SIGNAL POLE BASE
3	EACH 2322EC	INSTALL SIGNAL PEDESTAL
1	EACH 2490BEC	INSTALL SIGNAL CONTROLLER-TY ATC

MATERIAL NOTES THAT ARE CONTRARY TO SECTION 835

SUBSECTION: 835.21 WARNING TAPE.
 REPLACE FIRST SENTENCE WITH THE FOLLOWING IN 834.33:
 REPLACE TABLE TYPE TAPE THAT IS 6 INCHES WIDE AND 7.0 MILS NOMINAL THICK.

DESIGNED BY: ADAM PROCTOR
 DATE SUBMITTED: 3/9/2022

Commonwealth of Kentucky
 DEPARTMENT OF HIGHWAYS
 COUNTY OF
BOURBON

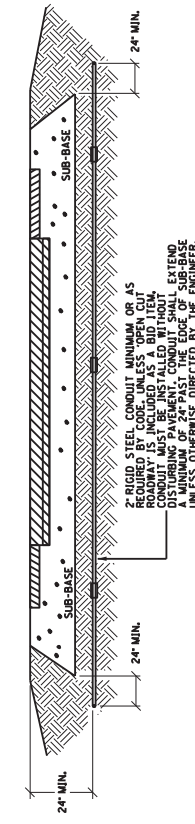
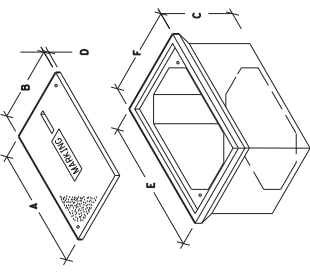
PROJECT NUMBER: FD04 009 068X 000-001

TRAFFIC SIGNAL
 ESTIMATE OF QUANTITIES
 MEASUREMENT, CONST., AND MISC NOTES

SHEET	ITEM NO.	COUNTY OF
15	7-9028-00	BOURBON

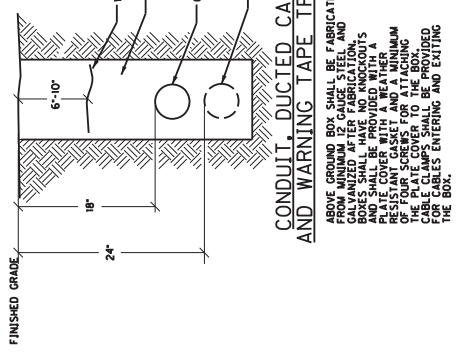
JUNCTION BOX DIMENSIONS (MINIMUM)						
	A	B	C	D	E	F
TYPE A	23"	14"	27"	2"	25"	15"
TYPE B	18"	11"	12"	1 1/4"	20"	13"
TYPE C	36"	24"	30"	3"	38"	26"

* MINIMUM
NOTE: STACKABLE BOXES ARE PERMITTED
JUNCTION BOX



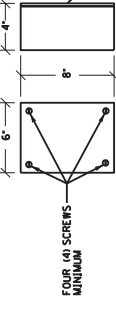
CONDUIT INSTALLATION UNDER EXISTING PAVEMENT DETAIL

DEPTHS SHOWN FOR CONDUIT AND CONDUIT INSTALLATION SHALL BE AS SHOWN. CONTRACTOR SHALL PLACE AND COMPLETE BACKFILL IN 9" MAXIMUM LIFT TO THE SATISFACTION OF THE ENGINEER.

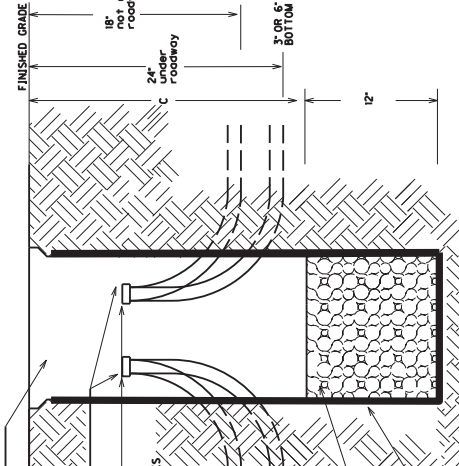
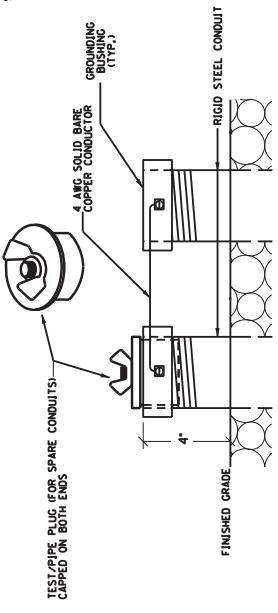


CONDUIT, DUCTED CABLE, AND WARNING TAPE TRENCH

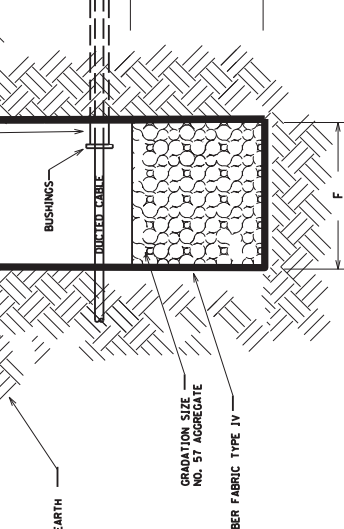
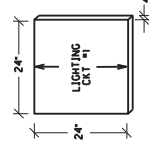
ABOVE GROUND BOX SHALL BE FABRICATED FROM MINIMUM 1/2 GAUGE STEEL AND BOXES SHALL HAVE NO ANKERCUTS AND SHALL BE PROVIDED WITH A RESISTANT GASKET AND A MINIMUM OF FOUR SCREWS FOR ATTACHING TO THE SURFACE. CABLE CLAMPS SHALL BE PROVIDED FOR CABLES ENTERING AND EXITING THE BOX.



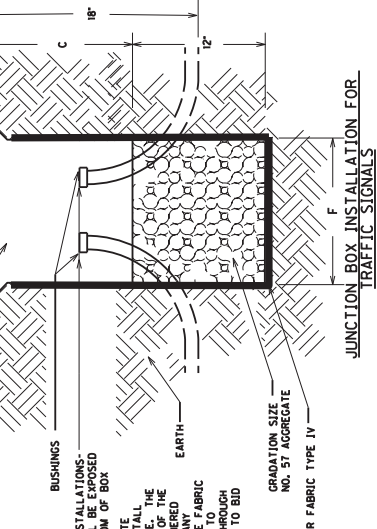
ABOVE GROUND BOX



JUNCTION BOX INSTALLATION FOR CONVENTIONAL LIGHTING



JUNCTION BOX INSTALLATION FOR HIGHMAST LIGHTING

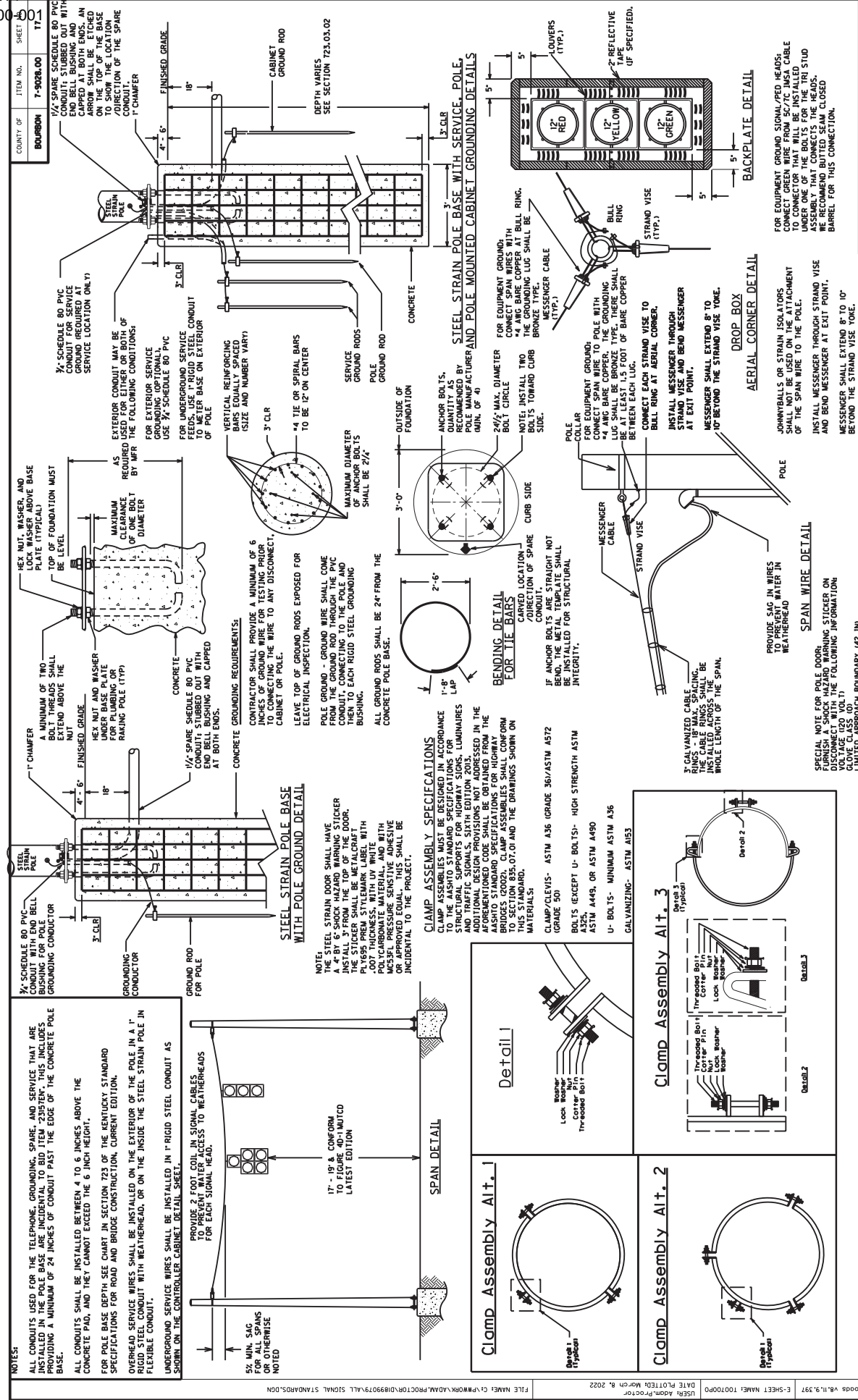


JUNCTION BOX INSTALLATION FOR TRAFFIC SIGNALS

TEST PIPE PLUS FOUR SPARE CONDUITS AND GROUNDING DETAIL CONCRETE CABLE MARKERS

3/13/2017

TRAFFIC SIGNAL AND ROADWAY LIGHTING JUNCTION BOX AND CONDUIT DETAILS



NOTES:

ALL CONDUITS USED FOR THE TELEPHONE, GROUNDING, SPARE, AND SERVICE THAT ARE INSTALLED IN THE POLE BASE ARE INCIDENTAL TO BID ITEM 2315REV. THIS INCLUDES PROVIDING A MINIMUM OF 24 INCHES OF CONDUIT PAST THE EDGE OF THE CONCRETE POLE BASE.

ALL CONDUITS SHALL BE INSTALLED BETWEEN 4 TO 6 INCHES ABOVE THE CONCRETE PAD, AND THEY CANNOT EXCEED THE 6 INCH HEIGHT.

FOR POLE BASE DEPTH SEE CHART IN SECTION 723 OF THE KENTUCKY STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

OVERHEAD SERVICE WIRES SHALL BE INSTALLED ON THE EXTERIOR OF THE POLE IN A RIGID STEEL CONDUIT WITH WEATHERHEAD, OR ON THE INSIDE THE STEEL STRAIN POLE IN FLEXIBLE CONDUIT.

UNDERGROUND SERVICE WIRES SHALL BE INSTALLED IN T-RIGID STEEL CONDUIT AS SHOWN ON THE CONTROLLER CABINET DETAIL SHEET.

PROVIDE 2 FOOT COILS IN SIGNAL CABLES FOR EACH SIGNAL HEAD.

FOR ALL GAS FOR ALL SPANS OR OTHERWISE NOTED

17" x 19" CONFORM FIT TO BE PROVIDED LATEST EDITION

CLAMP ASSEMBLY Airt. 1: Detail 1 (Typical)

CLAMP ASSEMBLY Airt. 2: Detail 2 (Typical)

CLAMP ASSEMBLY Airt. 3: Detail 3 (Typical)

DETAILS: Detail 1, Detail 2, Detail 3

CLAMP SPECIFICATIONS:

CLAMP ASSEMBLIES MUST BE DESIGNED IN ACCORDANCE TO THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND ADDITIONAL DESIGN PROVISIONS NOT ADDRESSED IN THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY STRUCTURAL SUPPORTS AND THE DRAWINGS SHOWN ON THIS STANDARD.

CLAMP/CLEVIS- ASTM A36 (GRADE 36)/ASTM A572 (GRADE 50)

BOLTS (EXCEPT U-BOLTS)- HIGH STRENGTH ASTM A449, OR ASTM A490

U-BOLTS- MINIMUM ASTM A36

GALVANIZING- ASTM A153

SPAN WIRE DETAIL: PROVIDE GAS IN WIRES TO PREVENT WATER IN WEATHERHEAD

BENDING DETAIL FOR TIE BARS: IF ANCHOR BOLTS STRAIGHT NOT BEND, THE METAL TEMPLATE SHALL BE INSTALLED FOR STRUCTURAL INTEGRITY.

SPAN WIRE DETAIL: SPECIAL NOTE FOR POLE DOORS: DISCONNECT THE CABLES FROM THE DISCONNECT WITH THE FOLLOWING INFORMATION: VOLTAGE (250 VOLTS) LIMITED APPROACH BOUNDARY (42 IN) RESTRICTED APPROACH BOUNDARY (CONTACT) USED FOR ADDITIONAL PPE REQUIRED SEE NFPA FOR ADDITIONAL PPE REQUIRED

BACKPLATE DETAIL: FOR EQUIPMENT GROUND SIGNAL/PEL HEADS: CONNECT GREEN WIRE FROM 5C/7C INSA CABLE TO CONNECTOR THAT WILL BE INSTALLED IN THE HEAD ASSEMBLY. THE STRAIN STUD ASSEMBLY THAT CONNECTS THE HEADS WE RECOMMEND BUTTED SEAM CLOSED BARREL FOR THIS CONNECTION.

AERIAL CORNER DETAIL: FOR EQUIPMENT GROUNDING: CONNECT SPAN WIRES WITH 1/4 ANG BARE COPPER AT BULL RING. NOTE: INSTALL TWO GROUNDING LUG SHALL BE BOLTS TOWARD CURB SIDE.

SPAN WIRE DETAIL: FOR EQUIPMENT GROUNDING: CONNECT EACH STRAND WIRE TO BULL RING AT AERIAL CORNER. INSTALL MESSENGER THROUGH STRAND WIRE AND BEND MESSENGER AT EXIT POINT. MESSENGER SHALL EXTEND 8" TO 10" BEYOND THE STRAND WIRE YOME.

CLAMP ASSEMBLY Airt. 1: FOR EQUIPMENT GROUNDING: CONNECT SPAN WIRES WITH 1/4 ANG BARE COPPER AT BULL RING. NOTE: INSTALL TWO GROUNDING LUG SHALL BE BOLTS TOWARD CURB SIDE.

CLAMP ASSEMBLY Airt. 2: FOR EQUIPMENT GROUNDING: CONNECT SPAN WIRES WITH 1/4 ANG BARE COPPER AT BULL RING. NOTE: INSTALL TWO GROUNDING LUG SHALL BE BOLTS TOWARD CURB SIDE.

CLAMP ASSEMBLY Airt. 3: FOR EQUIPMENT GROUNDING: CONNECT SPAN WIRES WITH 1/4 ANG BARE COPPER AT BULL RING. NOTE: INSTALL TWO GROUNDING LUG SHALL BE BOLTS TOWARD CURB SIDE.

SPAN WIRE DETAIL: PROVIDE GAS IN WIRES TO PREVENT WATER IN WEATHERHEAD

CLAMP ASSEMBLY Airt. 1: FOR EQUIPMENT GROUNDING: CONNECT SPAN WIRES WITH 1/4 ANG BARE COPPER AT BULL RING. NOTE: INSTALL TWO GROUNDING LUG SHALL BE BOLTS TOWARD CURB SIDE.

CLAMP ASSEMBLY Airt. 2: FOR EQUIPMENT GROUNDING: CONNECT SPAN WIRES WITH 1/4 ANG BARE COPPER AT BULL RING. NOTE: INSTALL TWO GROUNDING LUG SHALL BE BOLTS TOWARD CURB SIDE.

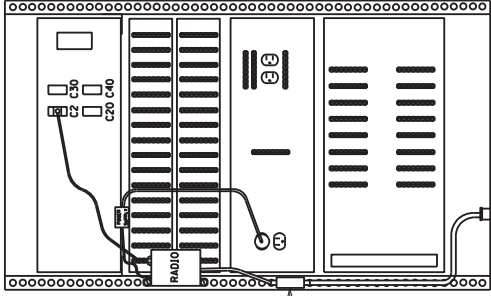
CLAMP ASSEMBLY Airt. 3: FOR EQUIPMENT GROUNDING: CONNECT SPAN WIRES WITH 1/4 ANG BARE COPPER AT BULL RING. NOTE: INSTALL TWO GROUNDING LUG SHALL BE BOLTS TOWARD CURB SIDE.

SPAN WIRE DETAIL: PROVIDE GAS IN WIRES TO PREVENT WATER IN WEATHERHEAD

BOURBON COUNTY, KY
 Contract ID: 224440
 Page 39 of 57

4/15/2021

COUNTY OF	BOURBON
ITEM NO.	7-9028-00
SHEET	12

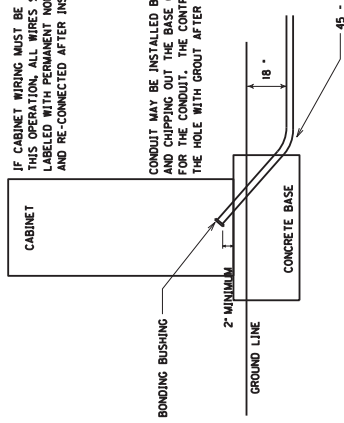


**RADIO INSTALLATION
(REAR OF CABINET)**

Surge protector shall be mounted to cabinet. There shall be no sharp bends in the coaxial cable.

IF CABINET WIRING MUST BE DISCONNECTED FOR THIS OPERATION, ALL WIRES SHALL BE NEATLY LABELED WITH PERMANENT NON-FADING LABELS AND RE-CONNECTED AFTER INSTALLING CONDUIT

CONDUIT MAY BE INSTALLED BY SAWING A SLOT AND CHIPPING OUT THE BASE OR DRILLING A HOLE FOR THE CONDUIT. THE CONDUIT SHALL FILL THE HOLE WITH GROUT AFTER CONDUIT IS INSTALLED

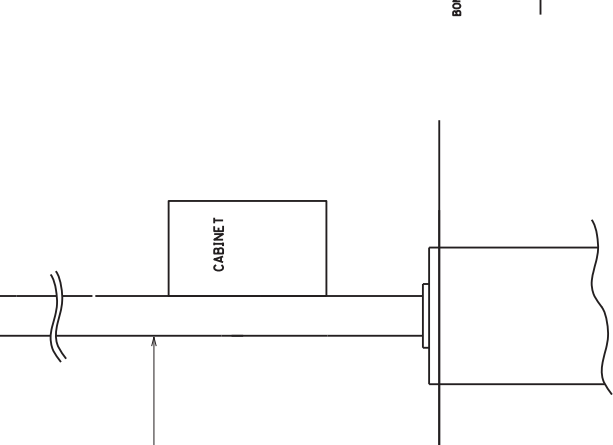


ADDING NEW CONDUIT TO EXISTING BASE

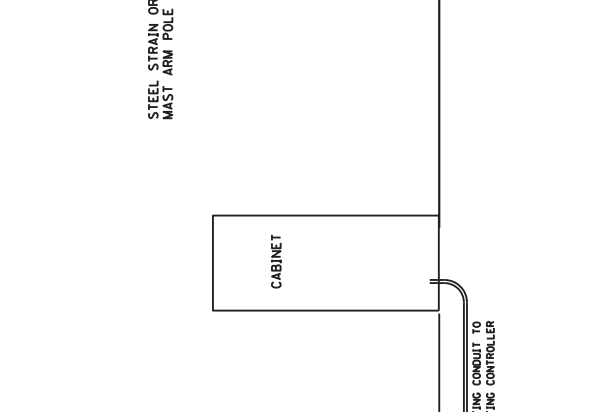
RADIO ANTENNA DETAIL

ANTENNA (OMNIDIRECTIONAL SHOWN) INSTALL WITH PLASTIC RADOME ABOVE TOP OF SUPPORTING CONDUIT
BLACK UV RESISTANT CABLE TIES
FORM A PARTIAL DRIP LOOP HERE, AVOID ANY SHARP BENDS IN CABLE
STAINLESS STEEL BANDING
GROMMET
DE-BURR END, SEAL WITH MASTIC PAD, DO NOT USE A WEATHERHEAD
1/4" RS CONDUIT SHALL BE BONDED TO STEEL STRAIN POLE OR TIED TO GROUND ROD

ANTENNA (DIRECTIONAL SHOWN) INSTALL WITH PLASTIC RADOME ON TOP
BLACK UV RESISTANT CABLE TIES
FORM A PARTIAL DRIP LOOP HERE, AVOID ANY SHARP BENDS IN CABLE
STAINLESS STEEL BANDING
GROMMET
DE-BURR END, SEAL WITH MASTIC PAD, DO NOT USE A WEATHERHEAD
1/4" RS CONDUIT SHALL BE BONDED TO STEEL STRAIN POLE OR TIED TO GROUND ROD



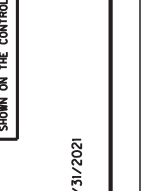
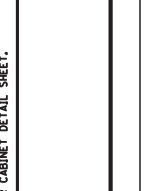
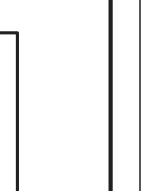
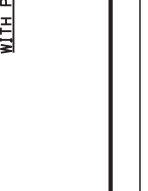
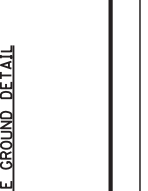
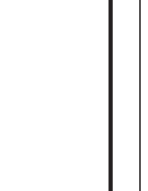
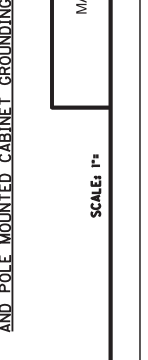
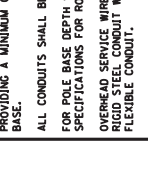
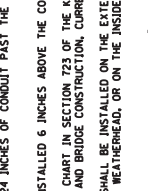
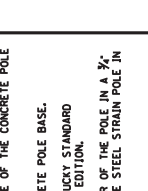
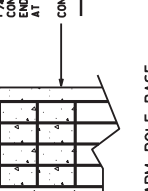
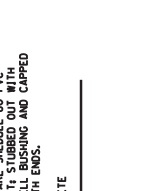
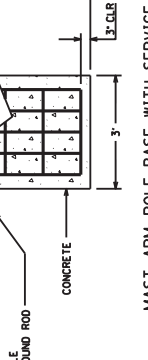
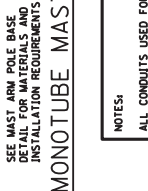
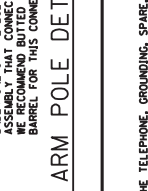
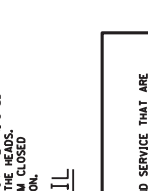
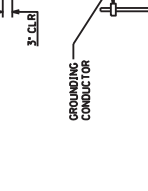
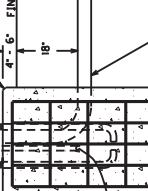
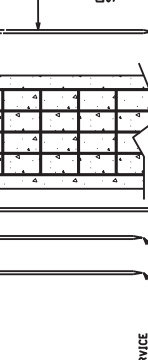
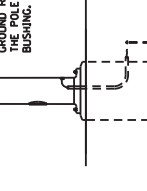
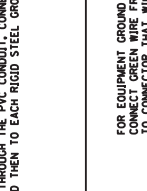
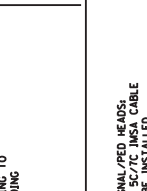
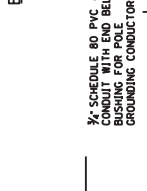
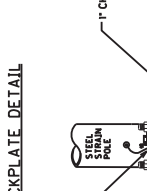
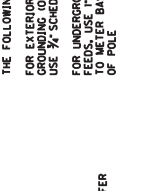
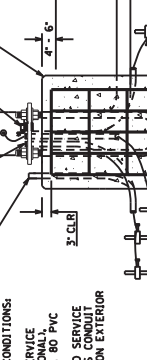
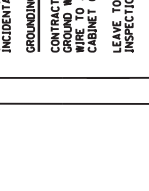
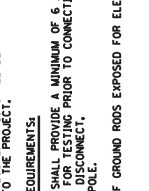
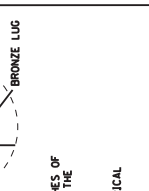
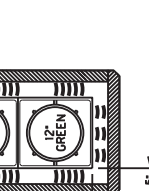
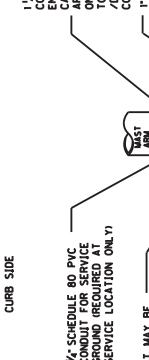
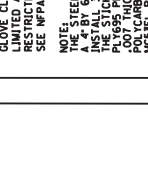
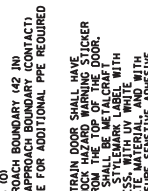
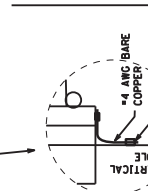
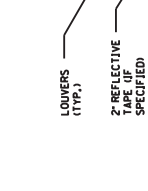
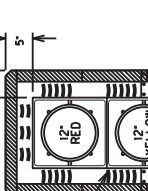
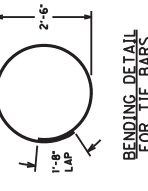
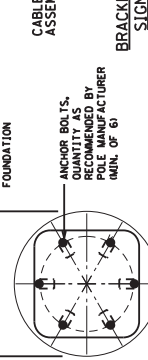
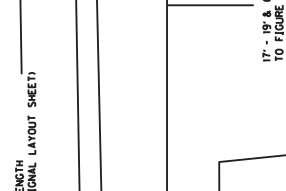
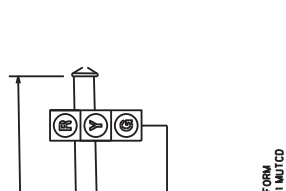
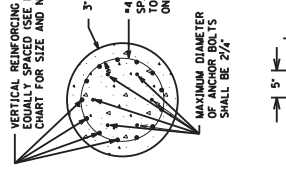
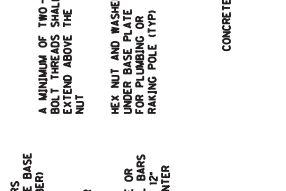
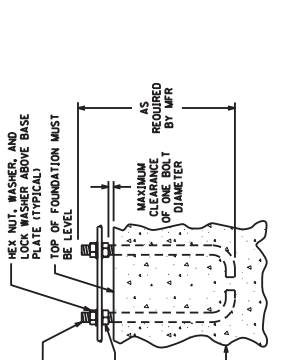
TYPICAL ANTENNA INSTALLATION FOR STEEL AND MAST ARM POLES WITH POLE MOUNT CONTROLLER CABINET



TYPICAL ANTENNA INSTALLATION FOR STEEL AND MAST ARM POLES WITH BASE MOUNT CONTROLLER CABINET

8/2004

SHEET	ITEM NO.	QUANTITY
74	74028.00	BOURBON

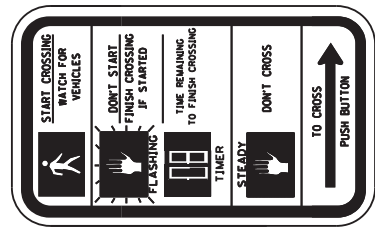


8/31/2021
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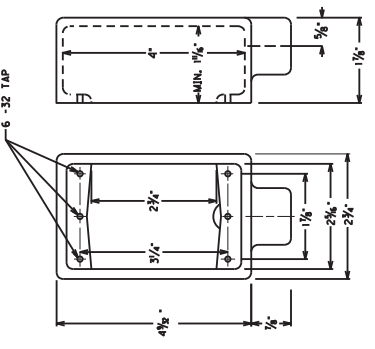
MAST ARM DETAILS

POWER THROUGH 18 11.9.297
 USER: Admin
 DATE PLOTTED: March 8, 2022
 FILE NAME: C:\PWORK\ADMIN\PROJECTS\2022\ALL SIGNAL STANDARDS.DWG

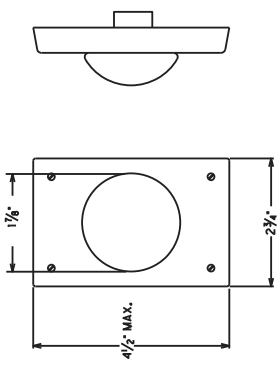
COUNTY OF	BOURBON	SHEET NO.	19
ITEM NO.	7-9028-00		



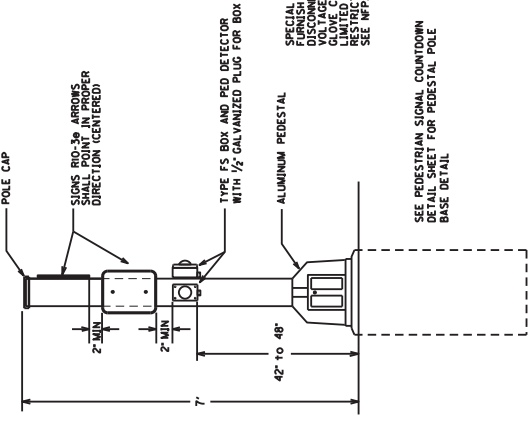
**RIO-3e SIGN (9" X 15")
FOR COUNTDOWN ONLY**



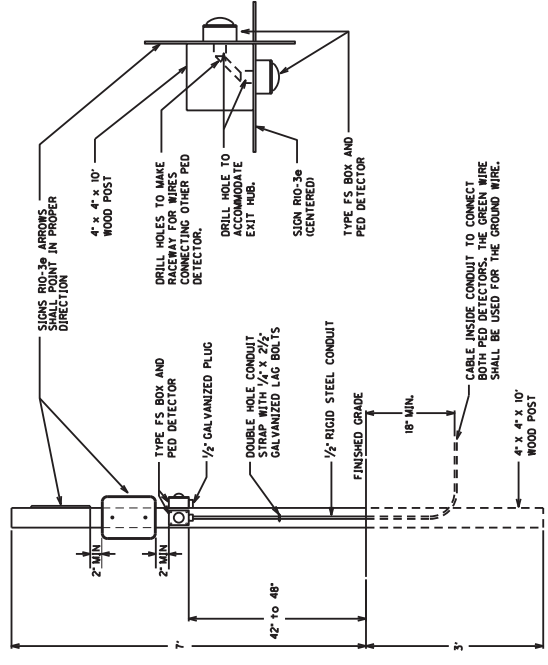
TYPE FS BOX FOR PED DETECTOR FOR USE WITH STEEL STRAIN POLE, WOOD POST, PEDESTAL, AND WOOD POLE



PEDE DETECTOR



PEDESTAL POST DETAIL FOR PED DETECTORS & SIGNS



PEDE DETECTOR ON WOOD POST DETAIL

SPECIAL NOTE FOR TRANSFORMER DOOR: PEDESTRIAN SIGNAL POWER ON DISCONNECT WITH THE FOLLOWING INFORMATION: (42 IN. LIMITED APPROACH BOUNDARY (CONTACT) RESTRICTED APPROACH BOUNDARY (CONTACT) SEE NFPA 70E FOR ADDITIONAL PPE REQUIRED)

8/3/2021

PEDESTRIAN DETECTOR DETAIL

SHEET	ITEM NO.	COUNTY OF
111	7-90283.00	BOURBON

MAST ARM POLES

POLE CALC. SERV. MOMENT

A 87.69 K-F

B 42.88 K-F

C 16.61 K-F

DAMPERS TO BE INSTALLED ON MAST ARM POLE

LOOP SCHEDULE

LOOP	PHASE	SLOT	CHANNEL	SIZE	TURNS	DIST. FROM STOP BAR
1A	1	J1	1	6x30	2	0'
4A	4	J6	2	6x30	2	0'
4B	4	J6	2	6x30	2	0'
5	5	J1	1	6x30	2	0'
8	8	J6	1	6x30	2	0'

WIRING SCHEDULE

CABLE	ORIGIN	ENDING	CONNECTING
1-14/5C	CONTROLLER SH 1	SH 1	SH 1
1-14/5C	CONTROLLER SH 2A	SH 2A & SH 2B	SH 2A & SH 2B
1-14/5C	CONTROLLER SH 4A	SH 4A & SH 4B	SH 4A & SH 4B
1-14/5C	CONTROLLER SH 5	SH 5	SH 5
1-14/5C	CONTROLLER SH 6A	SH 6A & SH 6B	SH 6A & SH 6B
1-14/5C	CONTROLLER SH 8A	SH 8A & SH 8B	SH 8A & SH 8B
1-14/1 PAIR	CONTROLLER JB 1	LOOP 4A & 4B	LOOP 4A & 4B
1-14/1 PAIR	CONTROLLER JB 2	LOOP 5	LOOP 5
1-14/1 PAIR	CONTROLLER JB 3	LOOP 8	LOOP 8

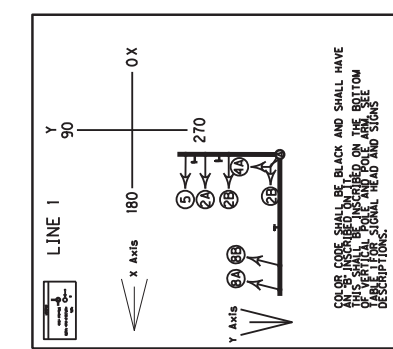
TABLE 1

POLE HEIGHT (FT.)	MAST ARM LENGTH (FT.)	MAST ARM MOUNTING HEIGHT (FT.)	NO. SIGNALS ON ARM	SIGNAL FROM		WEIGHT (POUNDS)
				FROM	TO	
A 20	45 (X)	18.5	1- 3 SEC. 36" x 36" Sign 36" x 36" Sign	A	BB BA 59	50 50 16
A 20	35 (Y)	18.5	1- 3 SEC. 36" x 36" Sign 36" x 36" Sign 1- 4 SEC. 36" x 36" Sign 36" x 36" Sign	A	28 20 52 24 5 52	50 16 60 60 16

Attachment distances are measured from the face of the vertical pole.

Pole B will have 16" x 16" x 18" Sign at 0 degrees

LENGTH x WIDTH x THICKNESS
3 SECTION 59" x 24" x 16"
4 SECTION 73" x 24" x 16"



COLOR CODE SHALL BE BLACK AND SHALL HAVE THIS SHALL BE INDICATED ON THE BOTTOM OF EACH SIGNAL HEAD AND SIGN. SEE DESCRIPTIONS.

LINE 2

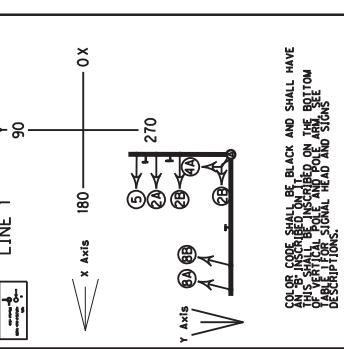
TABLE 1

POLE HEIGHT (FT.)	MAST ARM LENGTH (FT.)	MAST ARM MOUNTING HEIGHT (FT.)	NO. SIGNALS ON ARM	SIGNAL FROM	WEIGHT (POUNDS)
A 20	45 (X)	18.5	1- 3 SEC. 36" x 36" Sign 36" x 36" Sign	A	50 50 16
A 20	35 (Y)	18.5	1- 3 SEC. 36" x 36" Sign 36" x 36" Sign 1- 4 SEC. 36" x 36" Sign 36" x 36" Sign	A	50 16 60 60 16

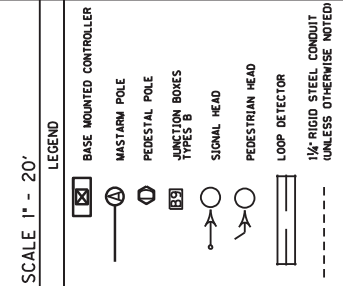
Attachment distances are measured from the face of the vertical pole.

Pole B will have 16" x 16" x 18" Sign at 0 degrees

LENGTH x WIDTH x THICKNESS
3 SECTION 59" x 24" x 16"
4 SECTION 73" x 24" x 16"

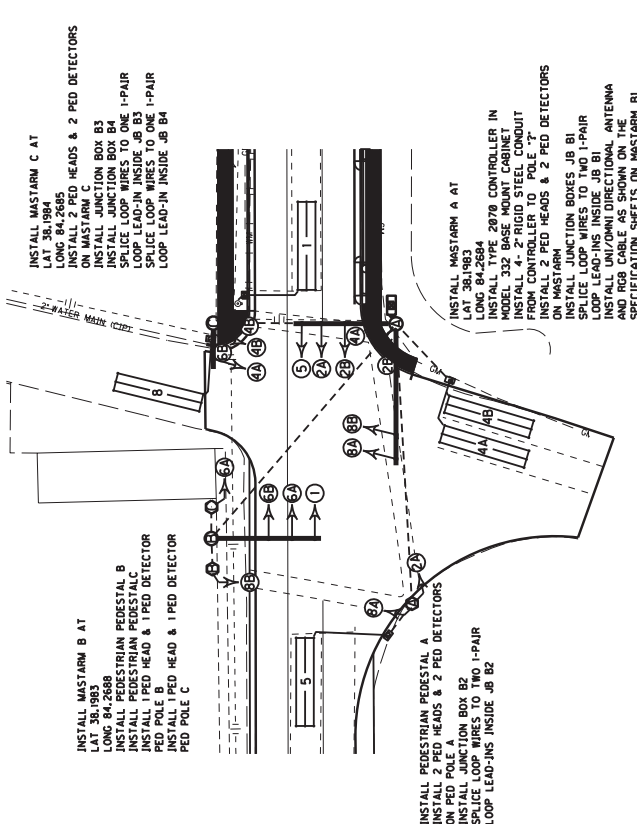
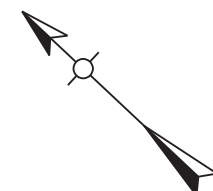


COLOR CODE SHALL BE BLACK AND SHALL HAVE THIS SHALL BE INDICATED ON THE BOTTOM OF EACH SIGNAL HEAD AND SIGN. SEE DESCRIPTIONS.



SCALE 1" = 20'

US68X @ KY1678



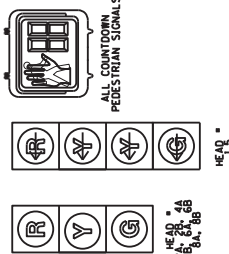
INSTALL MASTARM C AT
LAT 36.1984
LONG 84.2685
INSTALL 2 PED HEADS & 2 PED DETECTORS ON MASTARM C
INSTALL JUNCTION BOX B4
INSTALL JUNCTION BOX B4
LOOP LEAD-IN INSIDE JB B3
LOOP LEAD-IN INSIDE JB B4

INSTALL MASTARM B AT
LAT 36.1983
LONG 84.2688
INSTALL PEDESTRIAN PEDESTAL B
INSTALL PEDESTRIAN PEDESTAL C
INSTALL PED HEAD & TYPED DETECTOR
PED POLE B
INSTALL 1 PED HEAD & 1 PED DETECTOR
PED POLE C

INSTALL PEDESTRIAN PEDESTAL A
INSTALL 2 PED HEADS & 2 PED DETECTORS
INSTALL JUNCTION BOX B2
SPlice LOOP WIRES TO TWO 1-PAIR
LOOP LEAD-INS INSIDE JB B2

INSTALL MASTARM A AT
LAT 36.1984
LONG 84.2684
INSTALL TYPE 2070 CONTROLLER IN MODEL 332 BASE MOUNT CABINET
INSTALL 4- 2" RIGID STEEL CONDUIT ON MASTARM TO POLE
INSTALL 2 PED HEADS & 2 PED DETECTORS ON MASTARM
INSTALL JUNCTION BOXES JB B1
SPlice LOOP WIRES TO TWO 1-PAIR (SPlicing TO BE DONE BY THE FIELD)
INSTALL JUNCTION BOX B1
INSTALL JUNCTION BOX B1
AND RIGID CABLE AS SHOWN ON THE SPECIFICATION SHEETS ON MASTARM B1

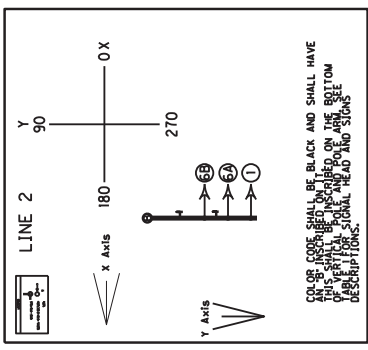
SIGNAL HEADS



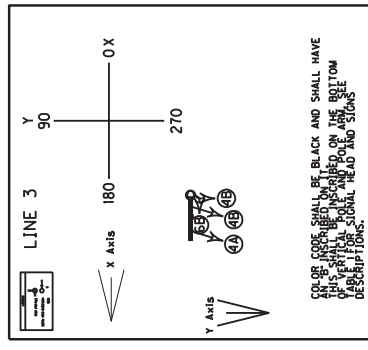
ALL INDICATIONS L.E.D.
ALL SIGNALS HAVE BACKPLATES

COUNTY OF	BOURBON	SHEET	11
ITEM NO.	7-9028.00		

US 68X @ KY 1678



COLOR CODE SHALL BE BLACK AND SHALL HAVE AN IS-100 REFLECTOR MOUNTED ON THE BOTTOM OF EACH POLE AND SIGNAL ARM. SEE DESCRIPTIONS FOR SIGNAL HEAD AND SIGN DESCRIPTIONS.



COLOR CODE SHALL BE BLACK AND SHALL HAVE AN IS-100 REFLECTOR MOUNTED ON THE BOTTOM OF EACH POLE AND SIGNAL ARM. SEE DESCRIPTIONS FOR SIGNAL HEAD AND SIGN DESCRIPTIONS.

LINE 2

TABLE 1

POLE HEIGHT (FT.)	MAST ARM LENGTH (FT.)	MOUNTING HEIGHT (FT.)	NO. SIGNALS ON ARM	* FUTURE	
				FROM SIGNAL	TO SIGNAL
B	20	395 (1)	1 - 3 SEC. 18" x 24" Sign 1 - 3 SEC. 1 - 4 SEC.	B	68 54 26 1
		18.5'			50 50 50 60

Attachment distances are measured from the face of the vertical pole.

Pole B will have 16' x 16' x 18" Sign at 0 degrees

LENGTH x WIDTH x THICKNESS
3 SECTION 59" x 24" x 16"
4 SECTION 73" x 24" x 16"

LINE 2

TABLE 1

POLE HEIGHT (FT.)	MAST ARM LENGTH (FT.)	MOUNTING HEIGHT (FT.)	NO. SIGNALS ON ARM	* FUTURE	
				FROM SIGNAL	TO SIGNAL
B	19	18 (1)	1 - 3 SEC. 1 - 3 SEC.	B	4A 4B
		18			11" 3"

Attachment distances are measured from the face of the vertical pole.

Pole B will have 16' x 16' x 18" Sign at 0 degrees

LENGTH x WIDTH x THICKNESS
3 SECTION 59" x 24" x 16"
4 SECTION 73" x 24" x 16"

**PROJECT MATERIALS RELEASE FORM
 FOR SIGNAL AND LIGHTING**

Note: Email form with signatures to KYTC's warehouse (kim.stamper@ky.gov) at least two (2) days prior to arrival for pickup. Ensure Contractor's delivery driver has a copy of form with signatures. Failure to do either may result in long delays or refusal to distribute materials upon arrival.

Item Number: 7-9028.00
 County: BOURBON
 Description: US68X @ KY1678

Cabinets	Master code	
1	T-01-0020	Base Mounted 332 Cabinet
1	T-01-0105	ATC Controller
1	T-01-0106	1C w/Maxtime (this should go with item ATC controller)
2	T-01-0510	Isolator, Model 242 (1 for 2070, plus for ped detector and railroad)
4	T-01-0600	Loop Detector, Model 222
10	T-01-0700	Load Switches

Signals		
8	T-02-0009	Siemens 3 Section Signal
8	T-02-0032	Siemen 3 section backplate
2	T-02-0033	Siemen 4 section 12" signal (poly)
2	T-02-0043	Siemen 4-sec. straight signal backplate
8	T-02-0090	Pedestrian signal housing
2	T-02-0300	LED Module 12" red arrow
4	T-02-0310	LED Module 12" yellow arrow
2	T-02-0320	LED Module 12" green arrow
8	T-02-0330	LED Module 12" red ball
8	T-02-0340	LED Module 12" yellow ball
8	T-02-0350	LED Module 12" green ball
8	T-02-0365	LED Countdown Pedestrian Module

Special items		
1	T-02-0504	Router (this includes power supply/antenna/cabling)
2	T-02-0650	Pedstl.top mntg.bkt One-way
1	T-02-0660	Pedstl.top mntg.bkt Two-way
3	T-02-0670	Pedestal
8	T-06-0710	Ped Detector Pole Mount FSA Box
8	T-06-0730	Ped Button w/o Plunger
8	T-17-0015	9 X 15 Countdown Ped Sign DBL Sided
8	T-02-0640	Mast arm mount signal bracket (3 section)
2	T-02-0641	Mast arm mount signal bracket (4 section)
4	T-02-0646	Mast Arm Dampers

REQUIRED

Electrical Contractor Name _____
 Electrical Contractor Supervisor _____ Contact number for Supervisor _____
 Project Engineer _____ Contact number for Project Engineer _____
 Project Engineer attests that the mentioned contractor is the actual electrical contractor on this project
 Signature of Project Engineer or Designee _____

PART II
SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

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

TRAFFIC
~ TEMPORARY ~
TRAFFIC CONTROL

LANE CLOSURE TWO-LANE HIGHWAY	TTC-100-05
LANE CLOSURE MULTI-LANE HIGHWAY CASE I	TTC-115-04
SHOULDER CLOSURE	TTC-135-03

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

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

KRS 11A.040 (7) provides:

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

KRS 11A.040 (9) states:

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

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

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

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

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

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 1025 Capital Center Drive, Suite 104, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: May 23, 2022

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
INSURANCE

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

PART V
BID ITEMS

PROPOSAL BID ITEMS

224440

Page 1 of 1

Report Date 5/20/22

Section: 0001 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	02650		MAINTAIN & CONTROL TRAFFIC (BOURBON US 68X)	1.00	LS		\$	
0020	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		\$	

Section: 0002 - SIGNALIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0030	02562		TEMPORARY SIGNS	150.00	SQFT		\$	
0040	04792		CONDUIT-1 IN	15.00	LF		\$	
0050	04793		CONDUIT-1 1/4 IN	120.00	LF		\$	
0060	04795		CONDUIT-2 IN	365.00	LF		\$	
0070	04811		ELECTRICAL JUNCTION BOX TYPE B	4.00	EACH		\$	
0080	04820		TRENCHING AND BACKFILLING	230.00	LF		\$	
0090	04830		LOOP WIRE	1,425.00	LF		\$	
0100	04844		CABLE-NO. 14/5C	1,370.00	LF		\$	
0110	04850		CABLE-NO. 14/1 PAIR	500.00	LF		\$	
0120	04881		MAST ARM POLE	3.00	EACH		\$	
0130	04895		LOOP SAW SLOT AND FILL	590.00	LF		\$	
0140	20093NS835		INSTALL PEDESTRIAN HEAD-LED	8.00	EACH		\$	
0150	20188NS835		INSTALL LED SIGNAL-3 SECTION	8.00	EACH		\$	
0160	20266ES835		INSTALL LED SIGNAL- 4 SECTION	2.00	EACH		\$	
0170	20390NS835		INSTALL COORDINATING UNIT	1.00	EACH		\$	
0180	21543EN		BORE AND JACK CONDUIT	300.00	LF		\$	
0190	21743NN		INSTALL PEDESTRIAN DETECTOR	8.00	EACH		\$	
0200	23157EN		TRAFFIC SIGNAL POLE BASE	8.77	CUYD		\$	
0210	23222EC		INSTALL SIGNAL PEDESTAL	3.00	EACH		\$	
0220	24908EC		INSTALL SIGNAL CONTROLLER-TY ATC	1.00	EACH		\$	
0230	24955ED		REMOVE SIGNAL EQUIPMENT	1.00	EACH		\$	

Section: 0003 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0240	02569		DEMOBILIZATION	1.00	LS		\$	