

Call 07 Intersection Improvements on MS 42 from I-59 to Sunrise Road, known as Federal Aid Project No. HSIP-0063-02(027) / 109338301 in Forrest County.

- Q1. The following questions pertain to the requested pole installation on MS Hwy 42 @ Old Richton Rd. BOM sheet 16 state 40' mast arm, but the intersection/information on sheet 2003 states 30' mast arm – please advise which size is correct. every single intersection view page states replacing just the light fixtures....so we are assuming no lum arms are needed..? a. If the lum arms are really needed, we will need to know: the style (mono-tube or truss), the length, and the finish (galv only or paint over galv).
- A1. Regarding Pay Item No. 907-634-A082: 40' arm is correct.
Regarding Pay Item 907-634-PP001, Luminaire Fixture and Arm, Per Plans: Fixture and Arms are required, mono – tube- 8' (See TSD-3C), galvanized.
For clarification, the table on TSI-3 that shows base plate data- “Pole Diameter” should be “Pole Circumference”.
- Q2. HSIP-0063-02(027) / Call No 7 Forrest County Subject: Technical Clarification regarding Special Provision – Edge AI Traffic Detection Current Requirement: “The edge computing appliance shall feature an internally integrated 4-channel analog video encoder built within the main processing chassis.” Requested Clarification / Revision: Will MDOT allow the deployment of a modular architecture consisting of an industrially hardened, external multi-channel hardware encoder paired with an IP-based Edge AI computing server, provided that the AI software vendor supplies, supports, and assumes single-vendor technical accountability for the operation of both hardware assets? - I have DERQ Edgebox that we use with an external encoder. The external encoder has never been an issue. Justification for MDOT Engineering Consideration: • 1. Protection Against Intersection Blindness: Combining a high-value GPU computing server with localized analog circuitry creates a severe single point of failure. If a BNC port fails due to a lightning or electrical surge (common to roadside cabinets in Mississippi's climate), the entire integrated GPU server must be removed from the cabinet and sent to the manufacturer for repair. A modular system ensures that a failed \$400 external encoder can be swapped in 5 minutes by MDOT maintenance forces with the support of Southern Lighting & Traffic Systems without taking down the entire AI processing engine. • 2. Preventing Sunk Capital Costs: As MDOT transitions legacy analog traffic intersections to native digital IP infrastructure, analog cameras will be phased out. An integrated unit leaves MDOT with expensive, dead internal analog hardware that cannot be repurposed. With a modular architecture, once an intersection upgrades to IP cameras, the external encoder can be unplugged and seamlessly deployed to another legacy analog intersection, completely preserving MDOT's capital investment. • 3. Ensures Open Competition: Allowing a vendor-supported external encoder ensures full compliance with federal and state open procurement policies, maximizing competitive bid pricing for the Commission while fulfilling identical operational requirements. If you would like me to show cutsheets or provide any more info, please let me know.
- A2. No.