

SECTION 905 -- PROPOSAL (CONTINUED)

I (We) hereby certify by digital signature and electronic submission via Bid Express of the Section 905 proposal below, that all certifications, disclosures and affidavits incorporated herein are deemed to be duly executed in the aggregate, fully enforceable and binding upon delivery of the bid proposal. I (We) further acknowledge that this certification shall not extend to the bid bond or alternate security which must be separately executed for the benefit of the Commission. This signature does not cure deficiencies in any required certifications, disclosures and/or affidavits. I (We) also acknowledge the right of the Commission to require full and final execution on any certification, disclosure or affidavit contained in the proposal at the Commission's election upon award. Failure to so execute at the Commission's request within the time allowed in the Standard Specifications for execution of all contract documents will result in forfeiture of the bid bond or alternate security.

Bidder acknowledges receipt of and has added to and made a part of the proposal and contract documents the following addendum (addenda):

ADDENDUM NO. 1 DATED 6/23/2016 ADDENDUM NO. 3 DATED 6/24/2016
 ADDENDUM NO. 2 DATED 6/23/2016 ADDENDUM NO. DATED

- | Number | Description |
|--------|---|
| 1 | Revised Table of Contents; Delete NTB No. 1322; Revised NTB Nos. 5545, 6111, & 6119; Add NTB Nos. 6522, & 6523; Add SP 907-630-13; Delete SP 907-630-15, & 907-721-4; Revised Bid Items; Revised or Added Plan Sheet Nos. 2, 6, 8-9, 18-20, 22, 24-26, 37, 40, 42, 44, 50, 195, 197, 199, 205, 1001-1015, 3022-3024, 9045-9050 for Projects 102556306 & 307; Revised or Added Plan Sheet Nos. 2, & 11 for Project 102556318; Amendment EBS Download Required. |
| 2 | Revised Table of Contents; Revised NTB No. 6107; Add NTB No. 6524; Revised Bid Items; Added or Revised Plan Sheet Nos. 2, 11, 14, 20, 3003, 3008, & 3009 |
| 3 | Revise NTB No. 6116; Amendment EBS Download Required. |

TOTAL ADDENDA: 3
 (Must agree with total addenda issued prior to opening of bids)

Respectfully Submitted,

DATE _____

 Contractor

BY _____
 Signature

TITLE _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE _____

FAX _____

E-MAIL _____

(To be filled in if a corporation)

Our corporation is chartered under the Laws of the State of _____ and the names, titles and business addresses of the executives are as follows:

_____ President	_____ Address
_____ Secretary	_____ Address
_____ Treasurer	_____ Address

The following is my (our) itemized proposal.

STP-0029-02(018) / 102556306000, STP-0029-02(018) / 102556307000 & STP-0029-03(015) / 102556318000
 Desoto & Marshall County(ies)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 6116

CODE: (SP)

DATE: 06/23/2016

SUBJECT: Location & Configuration of Communication Nodes

PROJECT: STP-0029-02(018) / 102556306&307, STP-0029-03(015) / 102556318 - Desoto & Marshall Counties

Communications Node

Bidders are hereby advised

- All OTN Equipment, Chassis and Cards shall be paid under Pay Item 907-660-PP001.
- The equipment, labor and configuration required that is not covered under the associated pay items below shall be considered incidental and paid for under TMC Modifications pay Item 907-659-A; Fiber Optic Cable 907-657-A or B; Networking Equipment 907-658-A.

OTN Node Components to be provided are shown in the table below.

OTN Node Locations & Configurations		Total #	I 269 @ 302	US Hwy 78
Item Description	Part No.			

NODE CHASSIS & POWER SUPPLIES				
N7024CF (24 Combo Ports)	S30826-B42-X701	2	1	1
Power Supply 90-264 VAC for N50, N70 (1000W)	S30812-A5020-A71	4	2	2
Power Cord 110 VAC for N7x node – USA, 2,5m	V30812-A3060-A13	4	2	2

COMMON LOGIC CARDS & OPTICAL TRANSCEIVERS				
L2-optic module for OTN-X3M@10G (multimode, 850 nm)	V30813-S27-A1	2	1	1
S2-optic module for X2M@10G (1310nm)	V30813-S25-A1	2	1	1
Optical GbE SFP 1310nm singlemode-LX	V30813-S20-A2	32	16	16
Electrical GbE SFP RJ45 for BORA622-ETX, BORA2500-ETX	V30813-S30-A2	2	1	1

NETWORK MANAGEMENT / MAINTENANCE SOFTWARE				
OMS License for one N70	AG-L398	2	1	1

*The contractor shall provide the appropriate number of Back panels to cover empty card slots.

Part numbers are provided for informational purposes and are subject to change by the manufacturer. Any part substitutions due to revision or version change must be approved by the MDOT project Manager. Not all required ancillary components are shown in the table above; however, these shall be provided as part of the OTN Node to comprise a fully functional and operable final system. This may include but is not limited to, network management/ maintenance software licensing, optical transceivers, node chassis and power supplies. All required OTN components shall be included in the price bid for Item no. 907-660-PP001

OTN Node Configuration – Site #1 (I-269 at Hwy 302)

- An OTN node shall be installed, connected, configured and shall be paid under Pay Item 907-660-PP001.
- The OTN node shall have a minimum of 40 Gbps Ethernet backplane.
- All other parts, components, installation, configuration, and cabling of the Communications node and ITS equipment located in the Communications hut shall be paid under Pay Item 907-660-PP001.
- The Contractor shall ensure communication and power service during project and burn-in period.
- The Contractor shall be responsible for installing the OTN equipment identified in TABLE 1 above and configuring them to be integrated to the MDOT ITS network as approved by the ITS Program Manager and his/her designee.
- **Work on OTN Node equipment must be done by a technician certified on the OTN Node technology.**
- The existing Type C network Switch will be configured by the Contractor as follows:
 - The contractor shall be responsible to determine the needs of the existing Cisco Switch located at Site #1 to provide the proper interfaces between the ITS field equipment and switches under the scope of this project.
 - If existing equipment must be moved, the contractor will coordinate with the ITS Engineer for movement of equipment.
 - The contractor is responsible for any re-cabling if existing equipment is moved to make room for the switch in the rack.
 - The Contractor shall provide, install, configure and integrate any network cards and/or modules into the existing Cisco switch and proposed OTN node that are needed to meet those needs.
 - If the existing Cisco switch does not have the free capacity to meet the determined needs, the Contractor will be required to provide and configure an additional Type C switch and connect via fiber patch cables to the existing switch.
 - The Contractor shall provide and configure any needed interface cards to support the additional GBICs or SPFs in the new and/or existing Network Switch.

- Switch upgrades and interfaces at Site #1 must be submitted and approved by the Project engineer and the ITS engineer during submittals for network switches to be provided in this project.

OTN Node Configuration – Site #2 (Hwy 78)

- All installation and configuration of the OTN nodes, network and ITS equipment located in the Communication hut buildings, and cabling will be paid under Pay Item 907-660-PP001.
- The OTN node shall have a minimum of 40 Gbps Ethernet backplane.
- The Contractor shall be responsible for installing the OTN equipment identified in TABLE 1 above and configuring them to be integrated to the MDOT ITS network as approved by the ITS Program Manager and his/her designee.
- Contractor shall be responsible for installing the OTN interface cards identified in the table above and configuring them to be integrated to the MDOT ITS network as approved by the ITS Program Manager or his/her designee.
- **Work on OTN Node equipment must be done by a technician certified on the OTN Node technology.**
- The Contractor shall interface and configure the Site #1 Node and Site #2 Node to provide communications between the HUTs and field elements connected to the HUTs.
- The existing Type C network Switch will be configured by the Contractor as follows:
 - The contractor shall be responsible to determine the needs of the existing Cisco Switch located at Site #2 to provide the proper interfaces between the ITS field equipment and switches under the scope of this project.
 - If existing equipment must be moved, the contractor will coordinate with the ITS Engineer for movement of equipment.
 - The contractor is responsible for any re-cabling if existing equipment is moved to make room for the switch in the rack.
 - The Contractor shall provide, install, configure and integrate any network cards and/or modules into the existing Cisco switch and proposed OTN node that are needed to meet those needs.
 - If the existing Cisco switch does not have the free capacity to meet the determined needs, the Contractor will be required to provide and configure an additional Type C switch and connect via fiber patch cables to the existing switch.
 - The Contractor shall provide and configure any needed interface cards to support the additional GBICs or SPFs in the new and/or existing Network Switch.
 - Switch upgrades and interfaces at Site #2 must be submitted and approved by the Project engineer and the ITS engineer during submittals for network switches to be provided in this project.

Interstate 55 at Southaven Combined TMC

The regional Traffic Management Center is located at the Southaven Police Department. All field equipment must communicate to the TMC through existing communication nodes. Any labor, equipment, and materials necessary in the TMC for this work shall be included in the bid price for Pay Item Number 907-659-A.