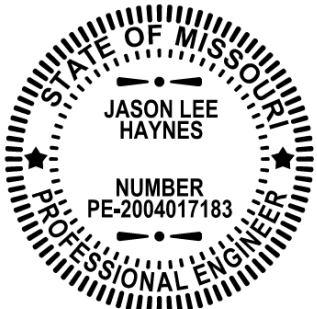


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 <p>THIS SHEET HAS BEEN SIGNED, SEALED, AND DATED ELECTRONICALLY</p>	<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636</p>
	<p>HDR Inc. <i>2139 E. Primrose Street, Suite E Springfield, MO 65804</i> Certificate of Authority: 000856 Consultant Phone: 417-351-6517</p>
	<p>If a seal is present on this sheet, JSP's have been electronically sealed and dated.</p>
	<p>JOB NUMBER: J8S3238 Greene County, MO DATE PREPARED: 10/17/2024</p>
	<p>ADDENDUM DATE:</p>
<p>Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: All</p>	

JOB
SPECIAL PROVISION

A. General - Federal JSP-09-02K

1.0 Description. The Federal Government is participating in the cost of construction of this project. All applicable Federal laws, and the regulations made pursuant to such laws, shall be observed by the contractor, and the work will be subject to the inspection of the appropriate Federal Agency in the same manner as provided in Sec 105.10 of the Missouri Standard Specifications for Highway Construction with all revisions applicable to this bid and contract.

1.1 This contract requires payment of the prevailing hourly rate of wages for each craft or type of work required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations and requires adherence to a schedule of minimum wages as determined by the United States Department of Labor. For work performed anywhere on this project, the contractor and the contractor's subcontractors shall pay the higher of these two applicable wage rates. State Wage Rates, Information on the Required Federal Aid Provisions, and the current Federal Wage Rates are available on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT", "Contractor Resources". Effective Wage Rates will be posted 10 days prior to the applicable bid opening. These supplemental bidding documents have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

1.2 The following documents are available on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to July 2024 Missouri Standard Plans
For Highway Construction

These supplemental bidding documents contain all current revisions to the published versions and have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

B. Contract Liquidated Damages JSP- 13-01D

1.0 Description. Liquidated Damages for failure or delay in completing the work on time for this contract shall be in accordance with Sec 108.8. The liquidated damages include separate amounts for road user costs and contract administrative costs incurred by the Commission.

2.0 Period of Performance. Prosecution of work is expected to begin on the date specified below in accordance with Sec 108.2. Regardless of when the work is begun on this contract, all work on all projects shall be completed on or before the date specified below. Completion by this date shall be in accordance with the requirements of Sec 108.7.1.

Notice to Proceed: January 06, 2025
Contract Completion Date: May 22, 2026

2.1 Calendar Days and Completion Dates. Completion of the project is required as specified herein. The count of calendar days will begin on the date the contractor starts any construction operations on the project.

Project	Calendar Days	Daily Road User Cost
J8S3238	438	\$3,200
JSRM0039	15	\$1,800

3.0 Liquidated Damages for Contract Administrative Costs. Should the contractor fail to complete the work on or before the contract completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged contract administrative liquidated damages in accordance with Sec 108.8 in the amount of **\$2,000** per calendar day for each calendar day, or partial day thereof, that the work is not fully completed. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the specified contract completion date or calendar days.

4.0 Liquidated Damages for Road User Costs. Should the contractor fail to complete the work on or before the contract completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged road user costs in accordance with Sec 108.8 in the amount specified in Section 2.1 for each calendar day, or partial day thereof, that the work is not fully completed. These damages are in addition to the contract administrative damages and any other damages as specified elsewhere in this contract.

C. Work Zone Traffic Management JSP-02-06N

1.0 Description. Work zone traffic management shall be in accordance with applicable portions of Division 100 and Division 600 of the Standard Specifications, and specifically as follows.

1.1 Maintaining Work Zones and Work Zone Reviews. The Work Zone Specialist (WZS) shall maintain work zones in accordance with Sec 616.3.3 and as further stated herein. The WZS shall coordinate and implement any changes approved by the engineer. The WZS shall ensure all traffic control devices are maintained in accordance with Sec 616, the work zone is operated within the hours specified by the engineer, and will not deviate from the specified hours without prior approval of the engineer. The WZS is responsible to manage work zone delay in accordance with these project provisions. When requested by the engineer, the WZS shall submit a weekly report that includes a review of work zone operations for the week. The report shall identify any problems encountered and corrective actions taken. Work zones are subject to unannounced inspections by the engineer and other departmental staff to corroborate the validity of the WZS's review and may require immediate corrective measures and/or additional work zone monitoring.

1.2 Work Zone Deficiencies. Failure to make corrections on time may result in the engineer suspending work. The suspension will be non-excusable and non-compensable regardless if road user costs are being charged for closures.

2.0 Traffic Management Schedule.

2.1 Traffic management schedules shall be submitted to the engineer for review prior to the start of work and prior to any revisions to the traffic management schedule. The traffic management schedule shall include the proposed traffic control measures, the hours traffic control will be in place, and work hours.

2.2 The traffic management schedule shall conform to the limitations specified in Sec 616 regarding lane closures, traffic shifts, road closures and other width, height and weight restrictions.

2.3 The engineer shall be notified as soon as practical of any postponement due to weather, material or other circumstances.

2.4 In order to ensure minimal traffic interference, the contractor shall schedule lane closures for the absolute minimum amount of time required to complete the work. Lanes shall not be closed until material is available for continuous construction and the contractor is prepared to diligently pursue the work until the closed lane is opened to traffic.

2.5 Traffic Congestion. The contractor shall, upon approval of the engineer, take proactive measures to reduce traffic congestion in the work zone. The contractor shall immediately implement appropriate mitigation strategies whenever traffic congestion reaches an excess of 10 minutes to prevent congestion from escalating to 15 minute or above threshold. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, then the contractor shall immediately review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent the queues from reoccurring. Traffic delays may be monitored by physical presence on site or by utilizing real-time travel data through the work zone that generate text and/or email notifications where available. The engineer monitoring the work zone may also notify the contractor of delays that require prompt mitigation. The contractor may work with the engineer to determine what other alternative solutions or time periods would be acceptable.

2.5.1 Traffic Safety.

2.5.1.1 Recurring Congestion. Where traffic queues routinely extend to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway, the contractor shall extend the advance warning area, as approved by the engineer.

2.5.1.2 Non-Recurring Congestion. When traffic queues extend to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway infrequently, the contractor shall deploy a means of providing advance warning of the traffic congestion, as approved by the engineer. The warning location shall be no less than 1000 feet and no more than 0.5 mile in advance of the end of the traffic queue on divided highways and no less than 500 feet and no more than 0.5 mile in advance of the end of the traffic queue on undivided highways.

3.0 Work Hour Restrictions.

3.1 Except for emergency work, as determined by the engineer, and long term lane closures required by project phasing, all lanes shall be scheduled to be open to traffic during the five major holiday periods shown below, from 12:00 noon on the last working day preceding the holiday until 6:00 a.m. on the first working day subsequent to the holiday unless otherwise approved by the engineer.

Memorial Day
Labor Day
Thanksgiving
Christmas
New Year's Day

3.1.1 Independence Day. The lane restrictions specified in Section 3.1 shall also apply to Independence Day, except that the restricted periods shall be as follows:

When Independence Day falls on:	The Holiday is Observed on:	Halt Lane Closures beginning at:	Allow Lane Closures to resume at:
Sunday	Monday	Noon on Friday	6:00 a.m. on Tuesday
Monday	Monday	Noon on Friday	6:00 a.m. on Tuesday
Tuesday	Tuesday	Noon on Monday	6:00 a.m. on Wednesday
Wednesday	Wednesday	Noon on Tuesday	6:00 a.m. on Thursday
Thursday	Thursday	Noon on Wednesday	6:00 a.m. on Friday
Friday	Friday	Noon on Thursday	6:00 a.m. on Monday
Saturday	Friday	Noon on Thursday	6:00 a.m. on Monday

3.2 The contractor shall not perform any construction operation on the roadway, roadbed or active lanes, including the hauling of material within the project limits, during restricted periods, holiday periods or other special events specified in the contract documents.

3.3 Any work requiring a reduction in the number of through lanes of traffic shall be completed during nighttime hours. Nighttime hours shall be considered to be 8:00 p.m. to 6:00 a.m. for this project.

3.3.1 Installation of new pipe culvert under Olive Street (south of Highway 00) shall be completed during nighttime hours. Removal of existing pipe culverts and installation of the new pipe culvert shall be completed over one nighttime operation. A temporary aggregate driving surface shall be installed after that night's work. The full repair of the asphalt roadbed shall be completed over night the following night.

4.0 Detours and Lane Closures.

4.1 When a changeable message sign (CMS) is provided, the contractor shall use the CMS to notify motorists of future traffic disruption and possible traffic delays one week before traffic is shifted to a detour or prior to lane closures. The CMS shall be installed at a location as approved or directed by the engineer. If a CMS with Communication Interface is required, then the CMS shall be capable of communication prior to installation on right of way. All messages planned for use in the work zone shall be approved and authorized by the engineer or its designee prior to deployment. When permanent dynamic message signs (DMS) owned and operated by MoDOT are located near the project, they may also be used to provide warning and information for the work zone. Permanent DMS shall be operated by the TMC, and any messages planned for use on DMS shall be approved and authorized by the TMC at least 72 hours in advance of the work.

4.2 At least one lane of traffic in each direction shall be maintained at all times except for brief intervals of time required when the movement of the contractor's equipment will seriously hinder the safe movement of traffic. Periods during which the contractor will be allowed to interrupt traffic will be designated by the engineer.

5.0 Basis of Payment. No direct payment will be made to the contractor to recover the cost of equipment, labor, materials, or time required to fulfill the above provisions, unless specified elsewhere in the contract document. All authorized changes in the traffic control plan shall be provided for as specified in Sec 616.

D. Emergency Provisions and Incident Management JSP-90-11A

1.0 The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from law enforcement or other emergency agencies for incident management. In case of traffic accidents or the need for law enforcement to direct or restore traffic flow through the job site, the contractor shall notify law enforcement or other emergency agencies immediately as needed. The area engineer's office shall also be notified when the contractor requests emergency assistance.

Springfield Resident Engineer: Brad Gripka 417-895-6720 (Office) or 417-529-2469 (Cell)

2.0 In addition to the 911 emergency telephone number for ambulance, fire or law enforcement services, the following agencies may also be notified for accident or emergency situation within the project limits.

Missouri Highway Patrol: (417) 895-6868
City of Strafford Police Department: (417) 864-1810
MoDOT Customer Service (417) 895-7600
Emergency Only Numbers
911
City of Strafford Fire Department: (417) 874-2300
(*55 cell phone – Missouri Highway Patrol)
(417-864-1160 cell – MoDOT Incident Management Coordinator)

2.1 This list is not all inclusive. Notification of the need for wrecker or tow truck services will remain the responsibility of the appropriate law enforcement agency.

2.2 The contractor shall notify law enforcement and emergency agencies before the start of construction to request their cooperation and to provide coordination of services when emergencies arise during the construction at the project site. When the contractor completes this notification with law enforcement and emergency agencies, a report shall be furnished to the engineer on the status of incident management.

3.0 No direct pay will be made to the contractor to recover the cost of the communication equipment, labor, materials or time required to fulfill the above provisions.

E. Project Contact for Contractor/Bidder Questions JSP-96-05

All questions concerning this project during the bidding process shall be forwarded to the project contact listed below.

Kristi Bachman, Project Contact
MoDOT – Southwest District
3025 E Kearney St.
Springfield, MO 65803

Telephone Number: 417-829-8040

Email: kristi.bachman@modot.mo.gov

All questions concerning the bid document preparation can be directed to the Central Office – Design at (573) 751-2876.

F. Supplemental Revisions JSP-18-01DD

Compliance with [2 CFR 200.216 – Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment](#).

The Missouri Highways and Transportation Commission shall not enter into a contract (or extend or renew a contract) using federal funds to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as substantial or as critical technology as part of any system where the video surveillance and telecommunications equipment was produced by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

Stormwater Compliance Requirements

1.0 Description. This provision requires the contractor to provide a Water Pollution Control Manager (WPCM) for any project that includes land disturbance on the project site and the total area of land disturbance, both on the project site, and all Off-site support areas, is one (1) acre or more. Regardless of the area of Off-site disturbance, if no land disturbance occurs on the project site, these provisions do not apply. When a WPCM is required, all sections within this provision shall be applicable, including assessment of specified Liquidated Damages for failure to correct Stormwater Deficiencies, as specified herein. This provision is in addition to any other stormwater, environmental, and land disturbance requirements specified elsewhere in the contract.

1.1 Definitions. The project site is defined as all areas designated on the plans, including temporary and permanent easements. The project site is equivalent to the “permitted site”, as defined in MoDOT’s State Operating Permit. An Off-site area is defined as any location off the project site the contractor utilizes for a dedicated project support function, such as, but not limited to, staging area, plant site, borrow area, or waste area.

1.2 Reporting of Off-Site Land Disturbance. If the project includes any planned land disturbance on the project site, prior to the start of work, the contractor shall submit a written report to the engineer that discloses all Off-site support areas where land disturbance is planned, the total acreage of anticipated land disturbance on those sites, and the land disturbance permit number(s). Upon request by the engineer, the contractor shall submit a copy of its land disturbance permit(s) for Off-site locations. Based on the total acreage of land disturbance, both on and Off-site, the engineer shall determine if these Stormwater Compliance Requirements shall apply. The Contractor shall immediately report any changes to the planned area of Off-site land disturbance. The Contractor is responsible for obtaining its own separate land disturbance permit for Off-site areas.

2.0 Water Pollution Control Manager (WPCM). The Contractor shall designate a competent person to serve as the Water Pollution Control Manager (WPCM) for projects meeting the description in Section 1.0. The Contractor shall ensure the WPCM completes all duties listed in Section 2.1.

2.1 Duties of the WPCM:

- (a) Be familiar with the stormwater requirements including the current MoDOT State Operating Permit for construction stormwater discharges/land disturbance activities; MoDOT's statewide Stormwater Pollution Prevention Plan (SWPPP); the Corps of Engineers Section 404 Permit, when applicable; the project specific SWPPP, the Project's Erosion & Sediment Control Plan; all applicable special provisions, specifications, and standard drawings; and this provision;
- (b) Successfully complete the MoDOT Stormwater Training Course within the last 4 years. The MoDOT Stormwater Training is a free online course available at MoDOT.org;
- (c) Attend the Pre-Activity Meeting for Grading and Land Disturbance and all subsequent Weekly Meetings in which grading activities are discussed;
- (d) Oversee and ensure all work is performed in accordance with the Project-specific SWPPP and all updates thereto, or as designated by the engineer;
- (e) Review the project site for compliance with the Project SWPPP, as needed, from the start of any grading operations until final stabilization is achieved, and take necessary actions to correct any known deficiencies to prevent pollution of the waters of the state or adjacent property owners prior to the engineer's weekly inspections;
- (f) Review and acknowledge receipt of each MoDOT Inspection Report (Land Disturbance Inspection Record) for the Project within forty eight (48) hours of receiving the report and ensure that all Stormwater Deficiencies noted on the report are corrected as soon as possible, but no later than stated in Section 5.0.

3.0 Pre-Activity Meeting for Grading/Land Disturbance and Required Hold Point. A Pre-Activity meeting for grading/land disturbance shall be held prior to the start of any land disturbance operations. No land disturbance operations shall commence prior to the Pre-Activity meeting except work necessary to install perimeter controls and entrances. Discussion items at the pre-activity meeting shall include a review of the Project SWPPP, the planned order of grading operations, proposed areas of initial disturbance, identification of all necessary BMPs that shall be installed prior to commencement of grading operations, and any issues relating to compliance with the Stormwater requirements that could arise in the course of construction activity at the project.

3.1 Hold Point. Following the pre-activity meeting for grading/land disturbance and subsequent installation of the initial BMPs identified at the pre-activity meeting, a Hold Point shall occur prior to the start of any land disturbance operations to allow the engineer and WPCM the time needed to perform an on-site review of the installation of the BMPs to ensure compliance with the SWPPP is met. Land disturbance operations shall not begin until authorization is given by the engineer.

4.0 Inspection Reports. Weekly and post run-off inspections will be performed by the engineer and each Inspection Report (Land Disturbance Inspection Record) will be entered into a web-based Stormwater Compliance database. The WPCM will be granted access to this database and shall promptly review all reports, including any noted deficiencies, and shall acknowledge receipt of the report as required in Section 2.1 (f.).

5.0 Stormwater Deficiency Corrections. All stormwater deficiencies identified in the Inspection Report shall be corrected by the contractor within 7 days of the inspection date or any extended

period granted by the engineer when weather or field conditions prohibit the corrective work. If the contractor does not initiate corrective measures within 5 calendar days of the inspection date or any extended period granted by the engineer, all work shall cease on the project except for work to correct these deficiencies, unless otherwise allowed by the engineer. All impact costs related to this halting of work, including, but not limited to stand-by time for equipment, shall be borne by the Contractor. Work shall not resume until the engineer approves the corrective work.

5.1 Liquidated Damages. If the Contractor fails to complete the correction of all Stormwater Deficiencies listed on the MoDOT Inspection Report within the specified time limit, the Commission will be damaged in various ways, including but not limited to, potential liability, required mitigation, environmental clean-up, fines, and penalties. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of \$2,000 per day for failure to correct one or more of the Stormwater Deficiencies listed on the Inspection Report within the specified time limit. In addition to the stipulated damages, the stoppage of work shall remain in effect until all corrections are complete.

6.0 Basis of Payment. No direct payment will be made for compliance with this provision.

Delete Sec 106.9 in its entirety and substitute the following:

106.9 Buy America Requirements.

Buy America Requirements are waived if the total amount of Federal financial assistance applied to the project, through awards or subawards, is below \$500,000.

106.9.1 Buy America Requirements for Iron and Steel.

On all federal-aid projects, the contractor's attention is directed to Title 23 CFR 635.410 *Buy America Requirements*. Where steel or iron products are to be permanently incorporated into the contract work, steel and iron material shall be manufactured, from the initial melting stage through the application of coatings, in the USA except for "minimal use" as described herein. Furthermore, any coating process of the steel or iron shall be performed in the USA. Under a general waiver from FHWA the use of pig iron and processed, pelletized, and reduced iron ore manufactured outside of the USA will be permitted in the domestic manufacturing process for steel or iron material.

106.9.1.1 Buy America Requirements for Iron and Steel for Manufactured items.

A manufactured item will be considered iron and steel if it is "predominantly" iron or steel. Predominantly iron or steel means that the cost of iron or steel content of a product is more than 50 percent of the total cost of all its components.

106.9.2 Any sources other than the USA as defined will be considered foreign. The required domestic manufacturing process shall include formation of ingots and any subsequent process. Coatings shall include any surface finish that protects or adds value to the product.

106.9.3 "Minimal use" of foreign steel, iron or coating processes will be permitted, provided the cost of such products does not exceed 1/10 of one percent (0.1 percent) of the total contract cost or \$2,500.00, whichever is greater. If foreign steel, iron, or coating processes are used, invoices to document the cost of the foreign portion, as delivered to the project, shall be provided and the engineer's written approval obtained prior to placing the material in any work.

106.9.4 Buy America requirements include a step certification for all fabrication processes of all steel or iron materials that are accepted per Sec 1000. The AASHTO Product Evaluation and

Audit Solutions compliance program verifies that all steel and iron products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and is an acceptable standard per 23 CFR 635.410(d). AASHTO Product Evaluation and Audit Solutions compliant suppliers will not be required to submit step certification documentation with the shipment for some selected steel and iron materials. The AASHTO Product Evaluation and Audit Solutions compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.

106.9.4.1 Items designated as Category 1 will consist of steel girders, piling, and reinforcing steel installed on site. Category 1 items require supporting documentation prior to incorporation into the project showing all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements. This includes the Mill Test Report from the original producing steel mill and certifications documenting the manufacturing process for all subsequent fabrication, including coatings. The certification shall include language that certifies the following. That all steel and iron materials permanently incorporated in this project was procured and processed domestically and all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410.

106.9.4.2 Items designated as Category 2 will include all other steel or iron products not in Category 1 and permanently incorporated in the project. Category 2 items shall consist of, but not be limited to items such as fencing, guardrail, signing, lighting and signal supports. The prime contractor is required to submit a material of origin form certification prior to incorporation into the project from the fabricator for each item that the product is domestic. The Certificate of Materials Origin form ([link to certificate form](#)) from the fabricator must show all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements and be signed by a fabricator representative. The engineer reserves the right to request additional information and documentation to verify that all Buy America requirements have been satisfied. These documents shall be submitted upon request by the engineer and retained for a period of 3 years after the last reimbursement of the material.

106.9.4.3 Any minor miscellaneous steel or iron items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. Examples of these items would be bolts for sign posts, anchorage inserts, etc. The certification shall read "I certify that all steel and iron materials permanently incorporated in this project during all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements procured and processed domestically in accordance with CFR Title 23 Section 635.410 Buy America Requirements. Any foreign steel used was submitted and accepted under minor usage". The certification shall be signed by an authorized representative of the prime contractor.

106.9.5 When permitted in the contract, alternate bids may be submitted for foreign steel and iron products. The award of the contract when alternate bids are permitted will be based on the lowest total bid of the contract based on furnishing domestic steel or iron products or 125 percent of the lowest total bid based on furnishing foreign steel or iron products. If foreign steel or iron products are awarded in the contract, domestic steel or iron products may be used; however, payment will be at the contract unit price for foreign steel or iron products.

106.9.6 Buy America Requirements for Construction Materials other than iron and steel materials. Construction materials means articles, materials, or supplies that consist of only one of the items listed. Minor additions of articles, materials, supplies, or binding agents to a construction material do not change the categorization of the construction material. Upon request

by the engineer, the contractor shall submit a domestic certification for all construction materials listed that are incorporated into the project.

- (a) Non-ferrous metals
- (b) Plastic and Polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables)
- (c) Glass (including optic glass)
- (d) Fiber optic cable (including drop cable)
- (e) Optical fiber
- (f) Lumber
- (g) Engineered wood
- (h) Drywall

106.9.6.1 Minimal Use allowance for Construction Materials other than iron or steel.

“The total value of the non-compliant products is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project.” The contractor shall submit to the engineer any non-domestic materials and their total material cost to the engineer. The contractor and the engineer will both track these totals to assure that the minimal usage allowance is not exceeded.

106.9.7 Buy America Requirements for Manufactured Products.

Manufactured products means:

- (a) Articles, materials, or supplies that have been:
 - (i) Processed into a specific form and shape; or
 - (ii) Combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies.
- (b) If an item is classified as an iron or steel product, a construction material, or a section 70917(c) material under § 184.4(e) and the definitions set forth in this section, then it is not a manufactured product. However, an article, material, or supply classified as a manufactured product under § 184.4(e) and paragraph (1) of this definition may include components that are construction materials, iron or steel products, or section 70917(c) materials.

106.9.7.1 Manufactured products are exempt from Buy America requirements. To qualify as a manufactured product, items that consist of two or more of the listed construction materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.

106.9.7.2 Manufactured items are covered under a general waiver to exclude them from Buy America Requirements. To qualify for the exemption the components must comprise of 55% of the value of materials in the item. The final assembly must also be performed domestically.

Pavement Marking Paint Requirements for Standard Waterborne and Temporary

1.0 Description. High Build acrylic waterborne pavement marking paint shall be used in lieu of standard acrylic waterborne pavement marking paint for all Standard Waterborne Pavement Marking Paint items and all Temporary Pavement Marking Paint items. Paint thickness, bead type, bead application rate, retroreflectivity requirements, and all other specifications shall remain as stated in the Missouri Standard Specifications for Highway Construction, except as otherwise amended in the contract documents.

2.0 Material Requirements. Material requirements for Sec 620.20.2.5 Standard Waterborne Paint, and Sec 620.10.2 Temporary Pavement Marking Paint shall be per Sec 1048.20.1.2 High Build Acrylic Waterborne Pavement Marking Paint.

Delete paragraph 15.0 of the General Provision Disadvantaged Business Enterprise (DBE) Program Requirements and substitute the following:

15.0 Data Collection from Bidders for DBE and Non-DBE Subcontractors, Suppliers, Manufacturers and/or Brokering used and not used in bids during the reporting period. MoDOT is a recipient of federal funds and is required by 49 CFR 26.11, to provide data about its DBE program. The information shall consist of all subcontractor quoting received for actual use and of consideration by the prime bidder. MoDOT will be requesting this information from bidding prime contractors and will provide prime bidders a form to submit the data by the last day of each month for the current letting. The information shall only include the names of both DBE and non-DBE companies that the prime bidders received quotes. MoDOT will then contact the DBEs and non-DBE subcontractors and request additional information from DBE and non-DBE subcontractors including current year of gross receipts and number of years in business. The information provided by the prime bidders shall not include any bid quote pricing regardless if it was used or not. This information will aid MoDOT in the determination of the availability of DBEs and will be used in subsequent availability studies.

G. Utilities JSP-93-26F

1.0 For informational purposes only, the following is a list of names, addresses, and telephone numbers of the known utility companies in the area of the construction work for this improvement:

<u>Utility Name</u>	<u>Known Required Adjustment</u>	<u>Type</u>
AT&T – Distribution Scott Hall 600 St. Louis, Room 630 Springfield, MO 65806 Phone: 417-849-8265 Email: sh4949@att.com	Yes (See Section 2.1)	Communications
City Utilities of Springfield - Electric T&D Eric Cochran 301 E. Central St. Springfield, MO 65801 Phone: 417-831-8612 Email: eric.cochran@cityutilities.net	No	Power
City Utilities of Springfield - Gas & Water Neil Parks 301 E. Central St. Springfield, MO 65801 Phone: 417-831-8604 Email: neil.parks@cityutilities.net	No	Gas & Water

<p>MoDOT (Signals, Lighting, ITS, Fiber) Joe Dotson 2455 N. Mayfair Ave. Springfield, MO 65803 Phone: 417-733-0664 Email: joseph.dotson@modot.mo.gov</p>	<p>Yes (See Section 3.1)</p>	<p>Signals, Lighting, ITS, Fiber</p>
<p>Liberty Utilities Shawn Stephens 3400 Kodiak Rd. Joplin, MO 64804 Phone: 417-609-8793 Email: shawn.stephens@libertyutilities.com</p>	<p>Yes (See Section 4.1)</p>	<p>Power</p>
<p>Lumen (CenturyLink National) Leslie Dingman 3253 E. Chestnut Exp. Springfield, MO 65802 Phone: 417-860-4526 Email: leslie.dingman@lumen.com</p>	<p>Yes (See Section 5.1)</p>	<p>Communications</p>
<p>Bluebird Network David Porter 9201 Ward Parkway, Suite 300 Kansas City, MO 64114 Phone: 816-704-1119 Email: david.porter@bluebirdnetwork.com</p>	<p>Yes (See Section 6.1)</p>	<p>Communications</p>
<p>City of Strafford Drew Gateley 126 Washington Street Strafford, MO 65757 Phone: 417-353-2450 Email: dgateley@straffordmo.net</p>	<p>Yes (See Section 7.1)</p>	<p>Water, Sewer</p>
<p>Mediacom Kyle Keller 1533 S. Enterprise Ave. Springfield, MO 65804 Phone: 417-496-8577 Email: kkeller@mediacomcc.com</p>	<p>Yes (See Section 8.1)</p>	<p>Communications</p>
<p>Total High Speed Internet Chris Harness 1091 W. Kathryn St. Nixa, MO 65714 Phone: 417-720-0676 Email: charness@totalhighspeed.net</p>	<p>No</p>	<p>Communications</p>

1.1 The existence and approximate location of utility facilities known to exist, as shown on the plans, are based upon the best information available to the Commission at this time. This information is provided by the Commission "as-is" and the Commission expressly disclaims any

representation or warranty as to the completeness, accuracy, or suitability of the information for any use. Reliance upon this information is done at the risk and peril of the user, and the Commission shall not be liable for any damages that may arise from any error in the information. It is, therefore, the responsibility of the contractor to verify the above listing information indicating existence, location and status of any facility. Such verification includes direct contact with the listed utilities.

1.2 Potholing of Utilities. The contractor shall pothole all utilities that are within the vicinity of the signal base construction and other locations as directed by the engineer. No direct payment will be made for compliance to this specification.

1.3 Various utilities listed above have overhead lines in the project limits in the vicinity of the Contractor's work. The contractor shall comply with the Missouri Overhead Powerline Safety Act; this statute makes it illegal for an unauthorized person or entity to work or bring equipment within 10 feet of a high voltage line that has not been covered or de-energized. The purpose of the Missouri Overhead Powerline Safety Act is to ensure the safety of the public when working around overhead power lines. If the contractor needs line cover when working near a primary powerline, then the contractor shall notify that utility owner a minimum of 14 days in advance of needing line cover. Most power providers perform this service free of charge for municipally-driven projects. The contractor shall be responsible for any damage to the overhead lines caused by their operations. There will be no direct payment for compliance to this specification.

2.0 Project Specific Provisions:

2.1 Coordination with AT&T. AT&T has impacted facilities that will require relocation at the intersections of Route 125 / Chestnut St, Route 125 / Washington Ave./Madison Ave., and Route 125 / HWY OO. AT&T will have all locations complete prior to the MoDOT contractor starting work. For any questions or concerns please contact AT&T engineer Scott Hall (417-849-8265).

3.1 Coordination with MoDOT (Signals, Lighting, ITS, Fiber). MoDOT has one traffic signal, lighting, ITS devices including one CCTV camera/pole, and fiber interconnect with ITS cabinet located within the project limits. In general, the construction plans identifies all required removals, adjustments, and installations needed for all of these items. For any questions or coordination on these items please contact Joe Dotson at 417-895-7599.

3.1.1 MoDOT Traffic Signals. Contractor shall remove the existing traffic signal at the I-44 / EB Ramps Intersection, with the exception of the power supply/meter that is to be reused to power a new lighting controller. Contractor shall install a new traffic signal at the Route 125 / Hwy OO intersection in accordance with the construction plans. Liberty utilities is setting a secondary pedestal next to pole 707867 that will provide the power feed for the new traffic signal. Disposition of signal equipment is identified in a separate job special provision below.

3.1.2 MoDOT Lighting. Contractor shall remove existing lights and install new lighting in accordance with the construction plans. Disposition of lighting equipment is identified in a separate job special provision below.

3.1.3 MoDOT ITS. Contractor shall remove existing fiber, power, and pullboxes and install replacements in accordance with the construction plans. Disposition of ITS equipment is identified in a separate job special provision below.

4.1 Coordination with Empire District Electric (Liberty Utilities). Liberty has impacted facilities (three wood power poles) that will require relocation north of the intersection of Route

125 / HWY OO. Liberty will have all relocations complete prior to MoDOT contractor starting work. For any questions or concerns please contact Shawn Stephens (417-609-8793).

Liberty Utilities is setting a secondary pedestal next to pole 707867 that will provide the power feed for the new traffic signal at Route 125 / HWY OO.

5.1 Coordination with Lumen. Lumen has impacted facilities south of Highway OO from the intersection of Route 125 / HWY OO to the west that will require relocation. Lumen will have all relocations complete prior to the MoDOT contractor starting work. For any questions or concerns please contact Leslie Dingman (417-860-4526).

6.1 Coordination with Bluebird Network. Bluebird Network has impacted facilities on the north side of Route OO at Washington and Jefferson and on the west side of Route 125 north of Pine Street that will require relocation, primarily consisting of horizontal adjustment of pullboxes and possibly adjustments to the conduit/fiber run along Route 125. Bluebird will relocate during construction in coordination with the MoDOT contractor. Bluebird's contractor is ADB (John Dressler – 531-222-6409). For any questions or concerns please contact Bluebirds contact David Porter (816-704-1119). The following graphic shows the extent of Bluebird Network's possible conflicts.



7.1 Coordination with City of Strafford (Water, Sewer). The City of Strafford has known conflicts within the project limits consisting of one fire hydrant on the northwest corner of Route 125 / Washington Avenue. The City will have this relocation complete prior to the MoDOT contractor starting work. For any questions or coordination on these items please contact Drew Gateley at 417-353-2450.

8.1 Coordination with Mediacom. Mediacom has impacted facilities that will require relocation. Mediacom is located aerial on three Liberty Utility wood power poles located on the east and west side of Route 125 north of the Route 125 / HWY OO intersection. Mediacom will coordinate with Liberty to transfer their line to any relocated Liberty poles prior to MoDOT contractor starting work. For any questions or concerns please contact Kyle Keller (417-496-8577).

H. Quality Management NJSP-15-22

1.0 Quality Management. The contractor shall provide Quality Management as specified herein to ensure the project work and materials meets or exceeds all contract requirements.

1.1 The contractor shall provide Quality Control (QC) of the work and material, as specified herein, to ensure all work and material is in compliance with contract requirements. QC staff shall perform and document all inspection and testing. The QC inspectors and testers may be employed by the contractor, sub-contractor, or a qualified professional service provided by the contractor.

1.2 The engineer will provide Quality Assurance (QA) inspection. The role of QA is to verify the performance of QC and provide confidence that the product will satisfy given requirements for quality.

1.3 The contractor shall designate a person to serve as the project Quality Manager (QM). The QM shall be knowledgeable of standard testing and inspection procedures for highway and bridge construction, including a thorough understanding of the Missouri Standard Specifications. The QM shall be responsible for the implementation and execution of the Quality Management Plan and shall oversee all QC responsibilities, including all sub-contract work. The QM shall be the primary point of contact for all quality related issues and responsibilities, and shall ensure qualified QC technicians and inspectors are assigned to all work activities. The QM should be separate from the manager of the work activities to effectively manage a QC program.

1.4 Any QC personnel determined in sole discretion of the engineer to be incompetent, derelict in their duties, or dishonest, shall at a minimum be removed from the project. Further investigation will follow with a stop work notification to be issued until the contractor submits a corrective action report that meets the approval of the engineer.

2.0 Quality Management Plan. The contractor shall develop, implement and maintain a Quality Management Plan (QMP) that will ensure the project quality meets or exceeds all contract requirements, and provides a record for acceptance of the work and material. A sample QMP, which shows minimum requirements, is provided on the MoDOT website at: www.modot.org/quality.

2.1 The QMP shall address all QC inspection and testing requirements of the work as described herein. A draft QMP shall be submitted to the Resident Engineer for review at least two weeks prior to the pre-construction conference. An approved QMP is required at least two weeks prior to the start of work, unless otherwise allowed by the engineer. Physical work on the project shall not begin prior to approval of the QMP by the engineer.

2.2 The approved QMP shall be considered a contract document and any revisions to the QMP will require approval from the engineer.

2.3 The following items shall be included in the Quality Management Plan:

- a) Organizational structure of the contractor's project management, production staff, and QC staff, specific to this project.
- b) Name, qualifications and job duties of the Quality Manager.
- c) A list of all certified QC testers who will perform QC duties on the project, including sub-contract work, and the tests in which they are certified.
- d) A list of all QC inspectors who will perform QC inspection duties on the project, including sub-contract work, and the areas of inspection that they will be assigned.

- e) A procedure for verifying documentation is accurate and complete as outlined in Section 3.
- f) A procedure describing QC Inspections as outlined in Section 4.
- g) A procedure describing QC Testing, as outlined in Section 5, including a job specific Inspection and Test Plan (ITP).
- h) A procedure describing Material Receiving as outlined in Section 6.
- i) A list of Hold Points that are not included in the checklist forms, as outlined in Section 8.
- j) A procedure for documenting and resolving Non-Conforming work as outlined in Section 9.
- k) A procedure for tracking and documenting revisions to the QMP.
- l) A list of any approved changes to the Standard Specifications or ITP, including a reference to the corresponding change order.
- m) Format for the Weekly Schedule and Work Plans as outlined in Section 10, including a list of activities that will require pre-activity meetings.

3.0 Project Documentation. The contractor shall establish a Document Control Procedure for producing and uploading the required Quality Management documents to a MoDOT-provided server. The document management software used by MoDOT is Microsoft SharePoint®. Contractors do not need to purchase Microsoft SharePoint®, however, it is recommended that new users acquire some basic training to better understand how to use this software. MoDOT does not provide the software training, but there are several online vendors who do. Contractors are required to use Microsoft Excel® and Microsoft Word® with some documents.

3.1 The contractor shall utilize the file structure and file naming convention provided by MoDOT. A sample file structure is available on the MoDOT website.

3.2 Documents (standard forms, reports, and checklists) referenced throughout this provision are considered the minimum documentation required. They shall be obtained from MoDOT at the following web address: www.modot.org/quality. The documents provided by MoDOT are required to be used in the original format, unless otherwise approved by the engineer. Any alteration to these forms shall be approved by the engineer.

3.3 Timely submittal of the required documents to the MoDOT document storage location is essential to ensure payment can be processed for the completed work. Submittal of the documents is required within 12 hours of the work shift that the work was performed, or on a document-specific schedule approved by the engineer and included in the QMP.

3.4 The contractor shall establish a verification procedure that ensures all required documents are submitted to the engineer within the specified time, and prior to the end of each pay period for the work that was completed during that period. Payment will not be made for work that does not include all required documents. Minimum documents that might be required prior to payment include: Test Reports, Inspection Checklists, Materials Receiving Reports, and Daily Inspection Reports.

3.5 The contractor shall perform an audit at project closeout to ensure the final collection of documents is accurate and complete.

4.0 Quality Control Inspections. The QMP shall identify a procedure for performing QC inspections. QC inspections shall be performed for all project activities to ensure the work is in compliance with the contract, plans and specifications.

4.1 The QM shall identify the QC inspectors assigned to each work activity. The QC inspectors shall inspect the work to ensure the work is completed in accordance with the plans and specifications, and shall document the inspection by completing the required inspection checklists, forms, and reports provided by MoDOT. Depending on the type of work, the checklists may be necessary daily, or they may follow a progressive work process. The frequency of each checklist shall be stated in the QMP. The contractor may propose alternate versions of checklists that are more specific to the work.

4.2 A Daily Inspection Report (DIR) is required to document pertinent activity on the project each day. This report shall include a detailed diary that describes the work performed as well as observations made by the inspection staff regarding quality control. The report shall include other items such as weather conditions, location of work, installed quantities, tests performed, and a list of all subcontractors that performed work on that date. The report shall include the full name of the responsible person who filled out the report and shall be digitally signed by an authorized contractor representative.

4.3 External fabrication of materials does not require further QC inspection if the product is currently under MoDOT inspection or an approved QC/QA program. QC inspection and testing required in the production of concrete for the project shall be the responsibility of the contractor.

4.4 The contractor shall measure, and document on the DIR, the quantity for all items of work that require measurement. Any calculations necessary to support the measurement shall be included with the documentation. The engineer will verify the measurements prior to final payment.

5.0 Quality Control Testing. The QMP shall identify a procedure for QC testing. The contractor shall perform testing of the work at the frequency specified in the Inspection and Test Plan (ITP).

5.1 MoDOT will provide a standard ITP and the contractor shall modify it to include only the items of work in the contract, including adding any Job Special Provision items. The standard ITP is available on the MoDOT website at www.modot.org/quality. The contractor shall not change the specifications, testing procedures, or the testing frequencies, from the standard ITP without approval by the engineer and issuance of a change order.

5.2 Test results shall be recorded on the standard test reports provided by the engineer, or in a format approved by the engineer. Any test data shall be immediately provided to the engineer upon request at any time, including prior to the submission of the test report.

5.3 The contractor shall ensure that all personnel who perform sampling and/or testing are certified by the MoDOT Technician Certification Program or a certification program that has been approved by MoDOT for the sampling and testing they perform.

5.4 If necessary, an independent third party will be used to resolve any significant discrepancies between QC and QA test results. All dispute resolution testing shall be performed by a laboratory that is accredited in the AASHTO Accreditation Program in the area of the test performed. The contractor shall be responsible for the cost to employ the third party laboratory if the third party

test verifies that the QA test was accurate. The Commission shall be responsible for the cost if the third party test verifies that the QC test was accurate.

6.0 Material Receiving. The QMP shall identify a procedure for performing material receiving. Standard material receiving forms will be provided by the engineer.

6.1 The procedure shall address inspections for all material delivered to the site (excluding testable material such as concrete, asphalt, aggregate, etc.) for general condition of the material at the time it is delivered. The material receiving procedure shall record markings and accompanying documentation indicating the material is MoDOT accepted material (MoDOT-OK Stamp, PAL tags, material certifications, etc.).

6.2 All required material documentation must be present at the time of delivery. If the material is not MoDOT accepted, the contractor shall notify the engineer immediately and shall not incorporate the material into the work.

7.0 Quality Assurance. The engineer will perform Quality Assurance inspection and testing (QA) to verify the performance of QC inspection and testing. The frequency of the QA testing will be as shown in the ITP, but may be more frequent at the discretion of the engineer. The engineer will record the results of the QA testing and inspection and will inform the contractor of any known discrepancies.

7.1 QA is responsible for verifying the accuracy of the final quantity of all pay items in the contract. This includes taking measurements on items that require measurement and other items that are found to have appreciable errors.

7.2 QA inspection and test results shall not be used as a substitute for QC inspection and testing.

7.3 QA will be available for Hold Point inspections at the times planned in the Weekly Schedule. The inspections may be re-scheduled as needed, but a minimum 24-hour advance notification from the contractor is required unless otherwise approved by the engineer.

8.0 Hold Points. Hold Points are events that require approval by the engineer prior to continuation of work. Hold Points occur at definable stages of work when the succeeding work depends on a QA review of the preceding work before work can continue.

8.1 A list of minimum Hold Points will be provided by the engineer and shall be included in the QMP. The engineer may make changes to the Hold Point list at any time.

8.2 Prior to all Hold Point inspections, QC shall provide the engineer with the Daily Inspection Reports, Inspection Checklists, Test Reports, and Material Receiving Reports for the work performed leading up to the Hold Point. If the engineer identifies any corrective actions needed during a Hold Point inspection, the corrections shall be completed prior to continuing work. The engineer may require a new Hold Point to be scheduled if the corrections require a follow-up inspection.

9.0 Non-Conformance Reporting. Non-conformance reports shall be issued by the contractor for work that does not meet the contract requirements. Non-conforming work includes work, testing, materials and processes that do not meet contract requirements. The contractor shall establish a procedure for identifying and resolving non-conforming work as well as tracking the status of the reports.

9.1 Contractor QC staff or production staff should identify non-conforming work and document the details on the Non-Conformance Report form provided by MoDOT. QA staff may also initiate a non-conformance report.

9.2 In-progress work that does not meet the contract requirements may not require a non-conformance report if production staff is aware of the issue and corrects the problem during production. QC or QA may issue a non-conformance report for in-progress work when documentation of the deficiency is considered beneficial to the project record.

9.3 The contractor shall propose a resolution to the non-conforming work. Acceptance of a resolution by the engineer is required before closure of the non-conformance report.

9.4 For recurring non-conformance work of the same or similar nature, a written Corrective Action Request will be issued by QC or QA. The contractor shall then establish a procedure for tracking the corrective action from issuance of the request to implementation of the solution. Approval from the engineer is required prior to implementation of the proposed corrective action. The contractor shall notify the engineer after the approved corrective action has been implemented.

10.0 Work Planning and Scheduling. The contractor shall include Quality Management in all aspects of the work planning and scheduling. This shall include providing a Weekly Schedule, a Work Plan for each work activity, and holding pre-activity meetings for each new activity.

10.1 A Weekly Schedule shall be provided to the engineer each week that outlines the planned project activities for the following two-week period. This schedule shall include all planned work, identification of all new activities, traffic control events, and requested Hold Point inspections for the period. Planned quantity of materials, along with delivery dates should also be included in the schedule.

10.2 A Work Plan shall be submitted to the engineer at least one week prior to the pre-activity meeting. The Work Plan shall include the following: a safety plan, list of materials to be used, work sequence, defined responsibilities for QC testing and inspection personnel, and stages of work that will require Hold Point inspections.

10.3 A pre-activity meeting is required prior to the start of each new activity. The purpose of this meeting is to discuss details of the Work Plan and schedule, including all safety precautions. Those present at the meeting shall include: the production supervisor for the activity, the Quality Manager, QC inspection and testing staff, and QA. The Quality Manager will review the defined responsibilities for QC testing and inspection personnel and will address any quality issues with the production staff. Attendees may join the meeting in person or by phone or video conference.

11.0 Basis of Payment. Payment for all costs associated with developing, implementing and maintaining the Quality Management Plan, providing Quality Control inspection and testing, and all other costs associated with this provision, will be considered included in the unit price of each contract item. No direct pay will be made for this provision.

I. Optional Pavements JSP 06-06H

1.0 Description. This work shall consist of a pavement composed of either Portland cement concrete or asphaltic concrete constructed on a prepared subgrade. This work shall be performed in accordance with the standard specifications and as shown on the plans or established by the engineer.

2.0 The quantities shown reflect the total square yards of pavement surface designated for each pavement type as computed and shown on the plans.

2.1 No additional payment will be made for asphaltic concrete mix quantities to construct the required 1:1 slope along the edge of the pavement, or for tack applied between lifts of asphalt.

2.2 No additional payment will be made for aggregate base quantities outside the limits of the final surface area as computed and shown on the plans. When A2 shoulders are specified, payment for aggregate base will be as shown on the plans.

2.3 The grading shown on the plans was designed for the *thinner* pavement option. For projects with grading in the contract, there will be no adjustment of the earthwork quantities due to adjusting the roadway subgrade for optional pavements.

2.4 The contractor shall comply with Sections 401 through 403 for the asphalt option and Sections 501 and 502 for the concrete option.

2.5 Pavement options composed of Portland cement concrete shall have contrast pavement marking for intermittent markings (skips), dotted lines, and solid intersection lane lines. The pavement markings shall be in accordance with Section 620. No additional payment will be made for the contrast pavement markings.

3.0 Method of Measurement. The quantities of concrete pavement will be measured in accordance with Section 502.14. The quantities of asphaltic concrete pavement will be measured in accordance with Section 403.22.

4.0 Basis of Payment. The accepted quantity of the chosen option will be paid for at the contract unit bid price for Item 403-99.05, Optional Pavement, per square yard.

4.1 For projects with previously graded roadbeds, any additional quantities required to bring the roadway subgrade to the proper elevation will be considered completely covered by the pay item for Subgrading and Shouldering.

4.2 Price Adjustment for Fuel. If the contractor accepts the option for fuel adjustment in the bid proposal, a fuel adjustment will be applied in accordance with Sec 109.14 for the type of pavement constructed.

J. Optional Shoulder

1.0 Description. This work shall consist of a pavement composed of either Portland cement concrete or asphaltic concrete constructed on a prepared subgrade. This work shall be performed in accordance with the standard specifications and as shown on the plans or established by the engineer. **Contractor's choice of shoulder material should match that of the Optional Pavement or adjacent existing pavement.**

2.0 The quantities shown reflect the total square yards of pavement surface designated for each pavement type as computed and shown on the plans.

2.1 No additional payment will be made for asphaltic concrete mix quantities for tack applied between lifts of asphalt.

2.2 No additional payment will be made for aggregate base quantities outside the limits of the final surface area as computed and shown on the plans. When A2 shoulders are specified, payment for aggregate base will be as shown on the plans.

2.3 The grading shown on the plans was designed for the *thinner* pavement option. For projects with grading in the contract, there will be no adjustment of the earthwork quantities due to adjusting the roadway subgrade for optional pavements.

2.4 The contractor shall comply with Sections 401 through 403 for the asphalt option and Sections 501 and 502 for the concrete option.

3.0 Method of Measurement. The quantities of concrete pavement will be measured in accordance with Section 502.14. The quantities of asphaltic concrete pavement will be measured in accordance with Section 403.22.

4.0 Basis of Payment. The accepted quantity of the chosen option will be paid for at the contract unit bid price for Item 403-99.05, Optional Shoulder, per square yard.

4.1 For projects with previously graded roadbeds, any additional quantities required to bring the roadway subgrade to the proper elevation will be considered completely covered by the pay item for Subgrading and Shouldering.

4.2 Price Adjustment for Fuel. If the contractor accepts the option for fuel adjustment in the bid proposal, a fuel adjustment will be applied in accordance with Sec 109.14 for the type of pavement constructed.

K. Temporary Pavement

1.0 Description. This work shall consist of furnishing all labor, materials, and equipment to install temporary pavement in locations shown in the project plans. Temporary pavement consists of 2” of SP125C asphalt on 7” of SP250C asphalt on 6” of Type 5 Aggregate for Base.

2.0 Work requirements. Work shall be in accordance with Section 303 and Division 400. Work includes supplying and installing the base aggregate, base asphalt course, and surface asphalt course as shown in the project plans.

3.0 Method of Measurement. This work will be measured as indicated on the plans, complete in-place and accepted by the engineer, as square yard quantity for base aggregate and tons placed for asphalt lifts for all work necessary.

4.0 Basis of Payment. Payment for this work shall include all materials, labor, equipment and time necessary to install the temporary pavement as shown in the contract documents. The accepted quantity will be paid for at the contract unit price for Items 304-05.06, Type 5 Aggregate for Base (6 IN. Thick), per square yard; 403-01.01, Asphaltic Concrete Mixture PG 64-22 (SP125C Mix), per ton; and 403-03.06, Asphaltic Concrete Mixture PG 64-22 (SP250C Mix), per ton. All costs associated with the removal of the temporary pavement shall be considered completely covered by the contract unit price for Pay Item No. 202-20.10, Removal of Improvements, per lump sum.

L. Tree Clearing Restriction JSP-07-05C

1.0 Description. The project is within the known range of the federally endangered Indiana bat, northern long-eared bat, and proposed endangered tricolored bat. These bats are known to roost in trees with suitable habitat characteristics during summer months.

1.1 MoDOT has determined that suitable trees for one or more of these bat species exist within the project area.

1.2 To avoid negative impacts to these bat species, removal of any trees/limbs greater than three (3) inches in diameter shall only occur between October 16 and March 31.

2.0 Basis of Payment. No direct pay shall be provided for any labor, equipment, time, or materials necessary to complete this work.

M. Curb Ramps and Sidewalk – SW

1.0 Description. Construction of concrete curbs, aprons, curb ramps, transition areas, sidewalk and landings shall be in accordance with applicable portions of Sections 608 & 609 of the Standard Specification and Standard Plans for Highway Construction 608.10, as shown on the plans, and meet ADA requirements.

2.0 Construction Requirements. This work shall include, but is not limited to, sidewalk construction including landings, joint construction, aggregate base, compaction, apron modifications, transition area, curb ramp construction, Type S Curb or Type A Curb installation (as required), tie bars or dowel bars (as required), clean-up, etc. for each location shown on the plans.

The following requirements shall be applicable to construction of this project:

- Existing curb, curb and gutter, sidewalk, shoulders, etc. that are adjacent to a designated curb ramp and/or sidewalk improvement area that is damaged during construction shall be replaced/repared to match existing materials and condition.
- Variable height curb along the roadside may be constructed monolithic or separate depending on construction operations. Integral curb shall be doweled to the existing gutter or pavement. - Integral or Type S-curb shall be used along the existing right-of-way when constructing curb ramps as shown on the plans. The cost of the curb is included in pay limits of the curb ramp.
- The transition area shall be 8" thick and tied to the existing roadway pavement and existing paved approach or sidewalk it is matching.
- Curing compound for all concrete construction shall be a clear or translucent color. The white pigmented option or other colored compound will not be allowed.
- Adjacent grass areas, landscaping, irrigation systems (lines, sprinkler heads, control boxes), pavement, etc. disturbed by curb ramp or sidewalk construction shall be repaired or replaced to match or exceed existing conditions.
- Sod quantities are included for adjacent areas. More or less sod may be required depending on actual field conditions.

3.0 Method of Measurement. Curb ramps and concrete sidewalk will be measured to the nearest 1/10 square yard. Measurement of incidental items required to complete all aspects of construction for the above noted items at each new curb ramp and sidewalk location will not be made individually unless specified elsewhere in the contract.

4.0 Basis of Payment. All costs incurred by the contractor by reason of compliance to satisfy the above requirements will be considered incidental to and completely covered by the contract unit price for each of the pay items within the contract.

N. ADA Compliance and Final Acceptance of Constructed Facilities JSP-10-01C

1.0 Description. The contractor shall comply with all laws pertaining to the Americans with Disabilities Act (ADA) during construction of pedestrian facilities on public rights of way for this project. An ADA Checklist is provided herein to be utilized by the contractor for verifying compliance with the ADA law. The contractor is expected to familiarize himself with the plans involving pedestrian facilities and the ADA Post Construction Checklist prior to performing the work.

2.0 ADA Checklist. The contractor can locate the ADA Checklist form on the Missouri Department of Transportation website:

<https://www.modot.org/forms-contractor-use>

2.1 The ADA Checklist is not to be considered all-inclusive, nor does it supersede any other contract requirements. The ADA checklist is a required guide for the contractor to use during the construction of the pedestrian facilities and a basis for the commission's acceptance of work. Prior to work being performed, the contractor shall bring to the engineer's attention any planned work that is in conflict with the design or with the requirement shown in the checklist. This notification shall be made in writing. Situations may arise where the checklist may not fully address all requirements needed to construct a facility to the full requirements of current ADA law. In those situations, the contractor shall propose a solution to the engineer that is compliant with current ADA law using the following hierarchy of resources: 2010 ADA Standards for Accessible Design, Draft Public Rights of Way Accessibility Guidelines (PROWAG) dated November 23, 2005, MoDOT's Engineering Policy Guidelines (EPG), or a solution approved by the U.S. Access Board.

2.2 It is encouraged that the contractor monitor the completed sections of the newly constructed pedestrian facilities in attempts to minimize negative impacts that his equipment, subcontractors or general public may have on the work. Completed facilities must comply with the requirements of ADA and the ADA Checklist or have documented reasons for the non-compliant items to remain.

3.0 Coordination of Construction.

3.1 Prior to construction and/or closure on an existing pedestrian path of travel, the contractor shall submit a schedule of work to be constructed, which includes location of work performed, the duration of time the contractor expects to impact the facility and an accessible signed pedestrian detour compliant with MUTCD Section 6D that will be used during each stage of construction. This plan shall be submitted to the engineer for review and approval at or prior to the pre-construction conference. Accessible signed detours shall be in place prior to any work being performed that has the effect of closing an existing pedestrian travel way.

3.2 *When consultant survey is included in the contract, the contractor shall use their survey crews to verify that the intended design can be constructed to the full requirements as established in the 2010 ADA Standards. When 2010 ADA Standards do not give sufficient information to construct the contract work, the contractor shall refer to the PROWAG.*

3.3 When consultant survey is not included in the contract, the contractor shall coordinate with the engineer, prior to construction, to determine if additional survey will be required to confirm the designs constructability.

4.0 Final Acceptance of Work. The contractor shall provide the completed ADA Checklist to the engineer at the semi-final inspection. ADA improvements require final inspection and compliance with the ADA requirements and the ADA Checklist. Each item listed in the checklist must receive either a "YES" or an "N/A" score. Any item receiving a "NO" will be deemed non-compliant and shall be corrected at the contractor's expense unless deemed otherwise by the engineer. Documentation must be provided about the location of any non-compliant items that are allowed to remain at the end of the construction project. Specific details of the non-compliant items, the ADA requirement that the work was not able to comply with, and the specific reasons that justify the exception are to be included with the completed ADA Checklist provided to the engineer.

4.1 Slope and grade measurements shall be made using a properly calibrated, 2 foot long, electronic digital level approved by the engineer.

5.0 Basis of Payment. The contractor will receive full pay of the contract unit cost for all sidewalk, ramp, curb ramp, median, island, approach work, cross walk striping, APS buttons, pedestrian heads, detectible warning systems and temporary traffic control measures that are completed during the current estimate period as approved by the engineer. Based upon completion of the ADA Checklist, the contractor shall complete any necessary adjustments to items deemed non-compliant as directed by the engineer.

5.1 No direct payment will be made to the contractor to recover the cost of equipment, labor, materials, or time required to fulfill the above provisions, unless specified elsewhere in the contract documents.

O. ADA Compliant Moveable Barricade

1.0 Description. The work shall consist of providing moveable barricades to satisfy the requirements of the pedestrian traffic control plans as shown in the bidding documents. The contractor will be responsible for moving the pedestrian barricades to coincide with their planned order of work.

2.0 Construction Requirements. The contractor shall use a moveable barricade that meets the requirements as established by the ADA. The pedestrian barricades shall be of self-supporting type having a minimum length of 6 feet per unit. The face of the barricade shall not extend into adjacent sidewalk considered open for pedestrian use. The contractor will be responsible for setting and maintaining the pedestrian barricades until all the proposed improvements have been constructed.

3.0 Method of Measurement. Measurement for ADA Compliant Moveable Barricade will be made per each for each 6 feet (min.) unit provided.

4.0 Basis of Payment. Payment for all work necessary to fulfill the requirements noted above will be considered completely covered in the contract unit price for Pay Item No. 616-99.02, Misc., ADA Compliant Moveable Barricade, per each. No direct payment will be made for any necessary relocation of the ADA Compliant Moveable Barricade.

P. Linear Grading for ADA Facilities - SW

1.0 Description. This work shall consist of altering the existing roadside features to the required grade and cross sections shown on the plans (if applicable), or to comply with typical sections, running slopes, drop-off and side-slope standards, consistent with the guidelines set forth in the Americans with Disabilities Act (ADA). This work shall be in accordance with Sections 202 and 207 and accompanying provisions except as modified herein.

2.0 Construction Requirements. The roadside shall be brought to the required grade and cross section as established in Section 1.0 of this provision, to a uniform appearance, free of sharp breaks or humps. Minor deviations will be allowed, to take advantage of favorable topography, as approved by the engineer.

2.1 The contractor shall remove all existing roadside improvements necessary to facilitate the new sidewalk and curb ramp construction, along with any other roadside removal items at, or adjacent to the pedestrian pathway, as noted in the plans or as approved by the engineer. This shall include the removal and/or saw cutting at existing raised islands or median strips to construct the pedestrian pathway. The contractor shall pay special care to existing utility facilities to be used in place or relocated by others.

2.2 The contractor shall be responsible for all excavation and embankment work necessary to facilitate construction of new ADA compliant facilities; normally consisting of subgrade and subsequent finished grading for sidewalks, curbs, curb ramps; and may include miscellaneous grading work for items such as ditches, entrances, paved approaches, driveways and pipes, at or adjacent to proposed new sidewalk facilities.

2.3 By this provision, it may be necessary to excavate, stockpile, and haul some material within the project limits. Due to staging and/or Right-of-Way constraints, it may be necessary to waste unusable material off Right-of-Way, and/or haul a replacement volume of material back to achieve the desired grades.

2.4 All removals of Portland or Asphaltic Concrete performed under this provision will require saw-cutting a neat/clean edge along the removal lines at no direct pay, unless otherwise provided for in the contract.

3.0 Method of Measurement. Measurement of Linear Grading for ADA Facilities will be made along the length of the new sidewalk and/or curb ramp installed, along each side of the roadway where sidewalk work is to be performed, and along the centerline length of each driveway, entrance, or paved approach as shown on the plans. Measurement will be made to the nearest 1-foot for each sidewalk work area, totaled, and paid to the nearest 1-foot for final pay. Final field measurement will not be required except where appreciable errors are found, or authorized changes have been made.

4.0 Basis of Payment. The accepted quantities of Linear Grading for ADA Facilities will be paid for at the contract unit price for item 207-99.03, Misc., Linear Grading for ADA Facilities, Linear Foot, and will be considered as full compensation for all labor, equipment, material, waste fees, disposal agreements, material acquisition, or other construction costs involved to complete the described work.

4.1 No direct payment will be made for "REMOVAL OF IMPROVEMENTS" associated with the removal and disposal of sidewalks, curbs, curb ramps, entrances, and other incidentals required for construction of the new sidewalk and/or curb ramps.

Q. ADA Material Testing Frequency Modifications JSP-23-01

1.0 Description. This provision revises the Inspection and Testing Plan (ITP) for the construction of ADA compliant features to better match the nature of the work. The Quality Control (QC) testing frequency for the Sections identified below are to be revised as specified.

2.0 Compaction Test on Base Rock Under Sidewalk, Curb Ramps and Paved Approaches. (Revises ITP Sec 304.3.4) The required test frequency will be one per 600 tons.

3.0 Gradation Test on Base Rock Under Sidewalk, Curb Ramps and Paved Approaches. (Revises ITP Sec 304.4.1) The required frequency will be one per 500 tons.

4.0 Concrete Plan Checklists. (Revises ITP Sec 501) Submittal of the 501 Concrete Plant Checklist will be once per week when the contractor is only pouring curb, sidewalk, paved approaches, and curb ramps.

5.0 Concrete Median, Median Strip, Sidewalk, Curb Ramps, and Curb. (Revises ITP Sec 608) The required frequency will be the first truckload for the project and each 100 CUYDs for air and slump thereafter. Strength will be verified by use of cylinders or maturity meters at a minimum rate of one per 100 CUYD.

6.0 Paved Approaches. (ITP Sec 608) The required testing of one test from the first truckload per day and each 100 CUYDs for air and slump will remain per ITP. Strength will be verified by use of cylinders or maturity meters at a minimum rate of one per 100 CUYD.

7.0 Curb Concrete. (Revises ITP Sec 609) The required frequency will be the same as Sec 5.0 above.

8.0 Basis of Payment. No direct payment will be made to the contractor to fulfill the above requirements.

R. Disposition of Existing Signal/Lighting and Network Equipment JSP-15-05A

1.0 Description. All controllers, cabinets, cabinet equipment, network equipment, DMS equipment, antennas, radios, modems, and other equipment noted in the plans shall be removed by the contractor and delivered to the following location:

MoDOT Signal Shop
2455 N. Mayfair Avenue
Springfield, MO 65803
(417) 895-6722

2.0 Signal Equipment. All equipment other than network communication devices noted in 3.0 are to be transported to the address listed above. The contractor shall notify the Commission's representative 24 hours prior to each delivery by calling the phone number listed above and ask for the field traffic supervisor.

3.0 Network Communication Devices. Devices such as CCTV cameras and domes, video encoders, device servers, Ethernet switches, media converters, and radio assemblies are to be transported to the address listed below. The contractor shall notify the Commission's

representative 24 hours prior to each delivery by calling phone number listed below and providing details for the delivery.

MoDOT Signal Shop
2455 N. Mayfair Avenue
Springfield, MO 65803
(417) 895-6722

4.0 The contractor shall exercise reasonable care in the handling of the equipment during the removal and transportation. Should any of the equipment be damaged by the contractor's negligence, it shall be replaced at the contractor's expense. The contractor shall dispose of any other equipment. Delivery shall be within 2 working days of removal. All items returned shall be tagged with the date removed, project number and location/intersection.

5.0 Basis of Payment. Payment for removal, handling and transportation of all equipment specified shall be considered completely covered by the contract unit price for 202-20.10, Removal of Improvements, per lump sum.

S. Pavement Marking Removal

1.0 Description. Contractor shall remove existing pavement markings and temporary tape markings as needed throughout the life of the project in accordance with the plans and Sec 620.50.

2.0 Work requirements. Removal of all pavement markings within the project limits shall be as shown on the plans or as approved by the engineer. Pavement marking shall be completely removed to the satisfaction of the engineer with minimal damage to the pavement. The contractor shall use an approved sand or water blasting method to remove the pavement marking. No more than five percent of the existing marking shall remain. The pavement surface shall not be left scarred with an image that might mislead traffic. Any excess damage or scarring of the pavement shall be repaired at the contractor's expense. It shall be the contractor's responsibility to determine what type of material needs to be removed. Temporary tape shall be removed per manufacturer recommendations. All other aspects of the construction shall comply with Sec 901.

3.0 Method of Measurement. This work will not be measured for payment.

4.0 Basis of Payment. All costs associated with removing existing or temporary pavement markings shall be considered as completely covered by the contract unit price for Item No. 202-20.10, Removal of Improvements, per lump sum.

T. Adjust Temporary Traffic Signal – Route 125 & I-44 EB Ramps

1.0 Description. This work shall consist of furnishing all labor, materials, and equipment to complete adjustments to the temporary traffic signal at the intersection of Route 125 and I-44 EB Ramps between construction phases as shown in the contract documents.

2.0 Work requirements. Work shall be in accordance with Sec 902. Work includes shifting vehicular traffic signal heads to align with traffic lanes, removal of a span wire pole and associated spans, and installing a new span with conductors and reinstalling vehicular traffic signal heads. Span-wire pole and vehicular signal head layouts are shown in the temporary traffic control plans

for each of four (4) phases of construction at the Route 125 and I-44 EB Ramps intersections. Adjustments are needed between phases 1 and 2, phases 2 and 3, and phases 3 and 4.

3.0 Method of Measurement. This work will be measured as indicated on the plans, complete-in place and accepted by the engineer, as unit lump sum quantity for all work necessary.

4.0 Basis of Payment. Payment for this work shall include all materials, labor, equipment and time necessary to adjust the Temporary Traffic Signal as shown in the contract documents. The accepted quantity will be paid for at the contract unit price for Item 902-99.02, Misc., Adjust Temporary Traffic Signal, per each.

U. Removal and Delivery of Existing Signs JSP-12-01C

1.0 Description. All Commission-owned signs removed from the project shall be disassembled, stored, transported, and disposed of as specified herein. Sign supports, structures and hardware removed from the project shall become the property of the contractor.

2.0 Disassembly and Delivery.

2.1 All Commission-owned signs, (excluding abandoned billboard signs), designated for removal in the plans, or any other signs designated by the Engineer, shall be removed from the sign supports and structures, disassembled, stored, transported, and delivered by the contractor to the recycling center for destruction.

2.2 The contractor shall coordinate and make arrangements with the recycling center for delivery of the signs. Sign panels shall be disassembled and/or cut into sizes as required by the recycling center.

2.3 The contractor shall provide the Engineer with a "Sign Delivery Certification" attesting to completion of delivery of all existing sign material from the project to the recycler. In addition, the contractor shall provide to the Engineer a final "Sign Certification of Destruction" from the recycler that documents the total pounds of scrap sign material received from the project and attests that all such material will not be re-purposed and will be destroyed in a recycling process. The contractor can locate the required certification statements from the Missouri Department of Transportation website:

<https://www.modot.org/forms-contractor-use>

2.4 Funds received from the disposal of the signs from the recycling center shall be retained by the Contractor.

3.0 Basis of Payment. All costs associated with removing, disassembling and/or cutting, storing, transporting, and disposing of signs shall be considered as completely covered by the contract unit price for Item No. 202-20.10, "Removal of Improvements", per lump sum.

V. Lighting Demolition

1.0 Description. Lighting including all associated structures, circuits, conductors and all appurtenances shall be demolished at the locations and in the manner shown on the plans.

2.0 Work requirements. Work shall be in accordance with Project Plan and Details. All other aspects of the construction shall comply with Sec 901. Coordinate work with the City, MoDOT, and Liberty Utilities.

3.0 Method of Measurement. This work will not be measured for payment.

4.0 Basis of Payment. No direct payment will be made to the contractor to recover the cost of equipment, labor, materials or time required to fulfill the above provisions. Cost associated with complying with this provision shall be considered incidental to Item 202-20.10 Removal of Improvements.

W. Utilize Existing Type 2 Power Supply

1.0 Description. The existing Type 2 Power Supply located in the southwest quadrant of the I-44 / EB Ramps intersection shall be utilized in place. This power supply feeding the existing streetlighting including all associated structures, conductors and appurtenances shall be reused in-place as the power supply for the new streetlighting in the manner shown on the plans.

2.0 Work requirements. Work shall be in accordance with Project Plan and Details. All other aspects of the construction shall comply with Sec 901. Coordinate work with the MoDOT and Liberty Utilities.

3.0 Method of Measurement. This work will not be measured for payment.

4.0 Basis of Payment. No direct payment will be made to the contractor to recover the cost of equipment, labor, materials or time required to fulfill the above provisions. Cost associated with complying with this provision shall be considered incidental to Item 901-99.01 Misc., Utilize Existing Type 2 Power Supply.

X. Contractor Furnished Embankment in Place - Borrow

1.0 Description. Design of this project was based on residual soils which are lean to fat clays of generally low to high plasticity (CL-CH) with variable amounts of admixed gravel which is a requirement to conform with design criteria of this project. Slope angles of 2:1 are recommended, however if the slopes are to be mowed then 3:1 slope angles would be required.

2.0 Work requirements. Contractor furnished borrow shall be equal to or better than the material assumed for the design and will be subject to approval of the engineer as provided in Section 106 and Section 203.3. Approval will be based on upon consideration of (1) various soil characteristics and dispersion of test values, (2) comparison with those used for design, (3) compliance with slope selection criteria outlined in Table 321.1 of the MoDOT Engineering Policy Guide.

3.0 Method of Measurement. This work will not be measured for payment.

4.0 Basis of Payment. No direct payment will be made to the contractor to recover the cost of complying with this provision. Cost associated with complying with this provision shall be considered incidental to Item 203-55.00 Compacting Embankment.

Y. Rectangular Rapid Flashing Beacon Assembly

1.0 Description. Rectangular Rapid Flashing Beacon (RRFB) Assemblies shall be installed at the locations indicated in the plans. Rectangular Rapid Flashing Beacon Assemblies shall consist of one signal post with pedestrian crossing signs and rapid flashing beacons (RRFBs) facing traffic. Each pedestrian crossing shall have two RRFB assemblies, one on each side, as shown on the plans.

2.0 Beacon Requirements.

2.1 General Conditions. RRFB assemblies shall meet requirements set forth by this JSP and in the MUTCD and found at:

http://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/fhwamemo.htm

An RRFB assembly shall consist of two rapidly and alternately flashed rectangular yellow indications having LED-array based pulsing light sources, and shall be designed, located, and operated in accordance with the detailed requirements specified below.

- a. Each post shall have front and rear facing signs and RRFBs for a total of 6 pedestrian signs, 3 instructional signs, **and** 6 plaques, and 12 RRFBs per crossing.
- b. Power for the RRFBs shall be supplied from solar panel and battery capable of supplying the appropriate power sufficient for 4 RRFBs per post. The solar panel and battery shall be installed on the same post.
- c. The two yellow warning signs shall be fluorescent yellow signs.

2.2 Restrictions.

- (a) An RRFB shall only be used to supplement a W11-2 (Pedestrian) with a diagonal downward arrow (W16-7p) plaque, located at or immediately adjacent to a marked crosswalk.
- (b) An RRFB shall not be used for crosswalks across approaches controlled by YIELD signs, STOP signs, or traffic control signals. This prohibition is not applicable to a crosswalk across the approach to and/or egress from a roundabout.
- (c) An RRFB shall not be installed independent of the crossing signs for the approach the RRFB faces. The RRFB shall be installed on the same support as the associated W11-2 (Pedestrian) and plaque.

2.3 Beacon Dimensions and Placement in Sign Assembly.

- (a) Each RRFB shall consist of two rectangular-shaped yellow indications, each with an LED-array based light source. Each RRFB indication shall be a minimum of approximately 5 inches wide by approximately 2 inches high.
- (b) The two RRFB indications shall be aligned horizontally, with the longer dimension horizontal and with a minimum space between the two indications of approximately seven inches (7 in), measured from inside edge of one indication to inside edge of the other indication.
- (c) The outside edges of the RRFB indications, including any housings, shall not project beyond the outside edges of the W11-2 sign.
- (d) As a specific exception to 2003 MUTCD Section 4K.01 guidance, the RRFB shall be located between the bottom of the crossing warning sign and the top of the supplemental downward diagonal arrow plaque (or, in the case of a supplemental advance sign, the AHEAD plaque), rather than 12 inches above or below the sign assembly. (See example

photo at:

http://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/fhwamemo.htm#image).

2.4 Beacon Flashing Requirements.

- (a) When activated, the two yellow indications in each RRFB shall flash in a rapidly alternating "wig-wag" flashing sequence (left light on, then right light on).
- (b) As a specific exception to 2003 MUTCD Section 4K.01 requirements for the flash rate of beacons, RRFBs shall use a much faster flash rate. Each of the two yellow indications of an RRFB shall have 70 to 80 periods of flashing per minute and shall have alternating but approximately equal periods of rapid pulsing light emissions and dark operation. During each of its 70 to 80 flashing periods per minute, one of the yellow indications shall emit two rapid pulses of light and the other yellow indication shall emit three rapid pulses of light.
- (c) The flash rate of each individual yellow indication, as applied over the full on-off sequence of a flashing period of the indication, shall not be between 5 and 30 flashes per second, to avoid frequencies that might cause seizures.
- (d) The light intensity of the yellow indications shall meet the minimum specifications of Society of Automotive Engineers (SAE) standard J595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005.

2.5 Beacon Operation.

- (a) The RRFB shall be normally dark, shall initiate operation only upon pedestrian actuation, and shall cease operation at a predetermined time after the pedestrian actuation. The length of actuation shall be programmable and changeable.
- (b) All RRFBs associated with a given crosswalk (including those with an advance crossing sign, if used) shall, when activated, simultaneously commence operation of their alternating rapid flashing indications and shall cease operation simultaneously.
- (c) A pedestrian instruction sign with the legend PUSH BUTTON TO TURN ON WARNING LIGHTS should be mounted adjacent to or integral with each pedestrian pushbutton. Push buttons shall meet American's with Disabilities Act (ADA) requirements in both location and design with both visible and audible feedback when pushed, as well as the requirements set forth in the JSP titled "Audible Pedestrian Signals and Signing."
- (d) The duration of a predetermined period of operation of the RRFBs following each actuation should be based on the MUTCD procedures for timing of pedestrian clearance times for pedestrian signals.
- (e) A small light directed at and visible to pedestrians in the crosswalk will be installed integral to the RRFB or push button to give confirmation that the RRFB is in operation.

2.6 Other.

- (a) Except as otherwise provided above, all other provisions of the MUTCD applicable to Warning Beacons shall apply to RRFBs.
- (b) The signs shall meet the requirements of Sec 903. The minimum height of the lowest sign shall be seven feet if mounted in sidewalk to meet ADA requirements.
- (c) The post shall meet MoDOT signal standards in Sec 902. The post will be located so that a minimum of four feet of walkable sidewalk is maintained.
- (d) The Engineer and the District Engineer or his/her designee must approve the site for the RRFB installation. The Engineer, Contractor and the District Traffic Engineer or designee

shall field check the location together at least 7 days in advance before the planned installation date. The contractor should coordinate with them in advance and follow their instructions and recommendations. Contact Information is below:

Cole Ketchum
(417) 766-3241

3.0 Method of Measurement. Measurement for installation of RRFBs will be made per each assembly. No measurement will be made for individual items that make up the RRFB assembly.

4.0 Basis of Payment. All labor, equipment, and materials necessary to install the beacons, signs, pedestrian actuation, post, foundation, solar panels, batteries, and other equipment to have a fully operational RRFB system will be included in pay item 902-99.02, Misc., Rectangular Rapid Flashing Beacon Assembly, per Each.

Z. Audible Pedestrian Pushbuttons and Signing

1.0 Description. Audible pedestrian pushbuttons and signing will be required for all signalized pedestrian crosswalks at all intersections. Each audible pedestrian signaling system shall include all electronic control equipment, mounting hardware and pushbuttons necessary to provide audible tone and speech indications as well as a vibrating tactile indication for specific pedestrian signal functions. Each audible pedestrian system will also include the hardware and software needed for programming the system operational parameters.

2.0 Installation, Programming and Functionality. The contractor shall install the audible pedestrian system following manufacturer's recommendations and Sec 902, and program each component for operation to provide the following functionality. Prior to activating each audible pedestrian system the contractor shall submit a listing of the values programmed for all variable system parameters to the engineer for review and approval. Use also Section 4E.09 – 4E.13 of the 2009 MUTCD for additional guidance of initial values for each programmable parameter.

2.0.1 Connectivity. All audible push system buttons shall have Blu-tooth interface or other hands-free capability and be password protected. Programming of the APS buttons shall be accessible through a field service application available on both iOS and Android platforms.

2.1 Audible Locator Tone. All APS buttons shall have a Locator tone. The Locator tone tells the pedestrian that the intersection is equipped with an APS system and guides them to the pushbutton location. The locator tone shall operate during the DON'T WALK and flashing DON'T WALK intervals only and shall be deactivated when the pedestrian signal is not operative. Locator tones shall have a duration of 0.15 seconds or less and repeat at 1-second intervals. Push button locator tones shall be intensity responsive to ambient sound and be audible 6 to 12 feet from the pushbutton, or the building line, whichever is less.

2.2 Verbal Wait Message. This acknowledgement message confirms for the pedestrian that their button press has placed a call. Each actuation shall be accompanied by the speech message "wait."

2.3 Walk Message. Where two accessible pedestrian signals are separated by a distance of at least 10 feet, the audible walk indication shall be a percussive tone. Where two accessible

pedestrian signals on one corner are not separated by a distance of at least 10 feet, the audible walk indication shall be a speech walk message.

2.3.1 Percussive tone. Walk indications shall repeat at eight to ten ticks per second. Audible tones used as walk indications shall consist of multiple frequencies with a dominant component at 880 Hz.

2.3.2 Verbal walk. Message provides a clear message that the walk interval is in effect, as well as to which crossing it applies. The message shall be audible from the entrance of the associated crosswalk. Walk messages that are used at intersections having pedestrian phasing that is concurrent with vehicular phasing shall be patterned after the model: "Broadway. Walk sign is on to cross Broadway." Walk messages that are used at intersections having exclusive pedestrian phasing shall be patterned after the model: "Walk sign is on for all crossings."

2.4 Vibrotactile Message. Vibrotactile indications shall be provided by a tactile arrow on the pushbutton that vibrates during the walk interval only. The arrow shall be located on the pushbutton, have high visual contrast and shall be aligned parallel to the direction of travel on the associated crosswalk.

2.5 Volume. Automatic volume adjustment in response to ambient traffic sound level will be provided up to a maximum volume of 100 dB. The units shall be responsive to ambient noise level changes up to 5 dB louder than ambient sound. Tone or voice volume measured at 36 inches from the unit shall be 2dB minimum and 5dB maximum above ambient noise level. At installation, signal system is to be adjusted to be audible at no more than 5 to 12 feet from the system.

3.0 Pushbutton Signage/Tactile Arrow. The sign shall be located immediately above the push button mechanism and parallel to the crosswalk controlled by the button. In addition to standard pedestrian sign requirements, all pushbuttons for the locations mentioned in 1.0 shall have a tactile arrow located on the push button to indicate crosswalk direction.

4.0 Equipment requirements. The audible pedestrian system and its components, in form and functionality, shall meet or exceed the requirements of the following documents and standards:

- 2009 MUTCD, Section 4E.09 – 4E.13
- NEMA 250 – 4X
- NEMA TS1, TS2, TS4, Type 170, Type 2070

5.0 Documentation and Support. Two copies of the operation and maintenance manuals for each installed system shall be included.

6.0 Construction Requirements. Construction requirements shall conform to Sec 902, 1061, and 1092.

7.0 Method of Measurement. Method of measurement shall conform to Sec 902.

8.0 Payment. Payment for the audible signals will be for each unit per bid item, 902-99.02, Misc., Audible Pedestrian Pushbutton and Signing, per each. This will include all wiring, power adaptors, and installation hardware needed. Payment for signing will be included in the pay item for audible pedestrian pushbutton.

AA. 2070 ATC Traffic Signal Controller

1.0 Description. This work shall consist of providing and installing a new 2070 controller with cabinet at the intersection of Route 125 and Highway OO.

2.0 Material Requirements. The new controllers installed with this project shall consist of ATC eX 2070 controllers with OMNI-eX software as manufactured by McCain, Inc. placed inside a 332 cabinet.

3.0 Communications. The contractor shall be responsible for providing and installing all necessary items to make the new signal controllers operational. This includes but is not limited to the 2070 controller, the OMNI-eX software, and the 332 cabinet. The engineer will provide the existing cycle lengths, but the contractor shall ultimately be responsible for programming the timings into the new controllers.

4.0 Method of Measurement. Method of measurement will be made per each controller installed by the contractor and acceptable by the engineer.

5.0 Basis of Payment. Accepted signal controllers will be paid for at the contract unit price for item 902-99.02, Misc., 2070 ATC Controller, per each.

BB. Damage to Existing Pavement, Shoulders, Side Roads and Entrances

1.0 Description. This work shall consist of repairing any damage to existing pavement, shoulders, side roads, and entrances caused by contractor operations. This shall include, but not be limited to, damage caused by the traffic during contractor operations within the project limits including the work zone signing.

2.0 Construction Requirements. Any cracking, gouging, or other damage to the existing pavement, shoulders, side roads, or entrances resulting from general construction shall be repaired within twenty-four (24) hours of the time of damage at the contractor's expense. Repair of the damaged areas shall be as approved by the engineer.

3.0 Method of Measurement. No measurement of damaged pavement, shoulders or side roads, or entrances as described above shall be made.

4.0 Basis of Payment. No payment will be made for repairs to existing pavement, shoulders, side roads or entrances damaged by contractor operation

CC. Connection of Existing Drainage Facilities

1.0 Description. The contractor shall field verify the tops, inverts, and pipe sizes of the existing drainage facilities. Contractor shall notify the engineer of any discrepancies or of any existing downstream pipe inverts that are not at or below proposed inverts of incoming pipes prior to ordering any materials. Any revisions or correction will be computed and added to or deducted from the contract quantity. All existing drainage structures and associated appurtenances required to maintain drainage continuity during construction phasing shall remain in place until construction phasing allows.

2.0 Work Requirements. Source of pipe connecting to existing flared end section at Route OO Station ~466+10 is unknown. Prior to ordering any materials, Contractor shall verify source of pipe and notify the engineer. Contractor to submit plan to connect existing pipe or source runoff to DI-330 to engineer for approval.

3.0 Basis of Payment. Payment will be made to the contractor to recover the cost of equipment, labor, materials, incidentals, or time required to fulfill the above provisions.

4.0 Basis of Payment. Payment for this work shall include all materials, labor, equipment and time necessary to connect pipes with unknown sources to new storm drainage structures. The accepted quantity will be paid for at the contract unit price for Item 733-99.01, Misc., Connection of Existing Drainage Facilities, per lump sum.

DD. Positive Drainage

1.0 Description. The contractor shall be made aware that this project alters the drainage collection and routing throughout the project. Care shall be taken during construction to provide proper drainage.

2.0 Construction Requirements. The contractor shall maintain positive drainage for all properties and shall not create locations of ponding or other drainage concerns to property owners. The contractor shall alert the engineer of any potential concerns during construction that may affect the ability to maintain positive drainage.

3.0 Basis of Payment. No direct payment will be made for compliance with this provision. All equipment and labor necessary for the work described shall be considered incidental to and completely covered by other pay items provided in the contract.

EE. Precast Concrete Manhole Base with Flat Top for Drop Inlet

1.0 Description. Drop inlets are specified in the project plans that will require a precast manhole base with a precast flat top and a specified drop inlet cover and grate and frame. Flat top can be Scituate Concrete Products 4-6' DIA CATCH BASIN, or similar equivalent.

2.0 Material. The materials covered under this section shall follow Section 731 for Precast Reinforced Concrete Manholes and Drop Inlets and shall conform to plan details. The precast flat top shall have a HL-93 Load rating.

3.0 Method of Measurement. Manholes shall be measured per Linear Foot of depth of the structure from the lowest invert to the top of the flat top.

4.0 Basis of Payment. The accepted quantities of precast manholes with Flat Top will be paid for at the contract unit price for each of the precast concrete manholes with no direct payment for the precast flat top. Each grate and frame will be paid for at the contract unit price. No direct payment will be made to the contractor to recover the cost of equipment, labor, materials, or time required to fulfill the above provisions other than the payment identified for each bid item.

FF. Existing Inlet Structure Retrofits

1.0 Description. Existing drop inlet/curb inlets are specified in the plans that will require structure retrofits to accommodate the newly proposed sidewalk. The drainage appurtenances are to remain in place, but will be retrofitted to close the existing curb inlet opening and/or accommodate a new pipe opening. Structure retrofits are required for structures EX. DI-101, EX. DI-109, EX. DI-121, EX. DI-131, EX DI-141, EX. DI-201, EX. DI-211, and EX. DI-221.

Retrofit for inlet closure could include:

- Removing the manhole top
- Doweling a rod across the curb inlet opening
- Constructing a form to close the curb inlet
- Pouring concrete to close inlet opening
- Resetting the manhole lid

Contractor to submit retrofit method to engineer for approval.

2.0 Method of Measurement. Retrofits shall be measured by each.

3.0 Basis of Payment. Payment will be made for compliance with this provision including all labor, equipment and material necessary for retrofits based on pay item: 604-99.02, Misc., Existing Inlet Structure Retrofits, per each.

GG. Trench Drain

1.0 Description.

1.1 This work shall consist of furnishing and installing a new trench drain, grates, and connection to drop inlets. Trench drain assembly can be ABT Polydrain PDX 5 Channel W/ Interceptor and A-67 Grating; Traffik Drain TD100; ACO Highway Drain HD200; or approved equal.

1.2 Trench drain shall have a nominal width of 6 inches.

2.0 Material. All material shall be in accordance with Division 1000, Material Details, and specifically as follows.

2.1 Trench Drain. All materials shall meet or exceed HL-93 loading criteria.

2.1.1 Grates. Grates shall be ductile iron or other durable material that meets or exceeds AASHTO H-20 loading criteria. Grates shall have a minimum open area of 60%.

3.0 Construction Requirements.

3.0.1 All work shall be performed in accordance with the Trench Drain manufacturer's recommendations and as approved by the engineer.

3.1.2 The layout of the Trench drains shall be submitted to the engineer for approval.

3.1.3 Contractor is required to modify drop inlet DI-330 and provide a drainage connection from the trench drain to facilitate drainage into the existing or proposed drainage system as shown on the plans. Contractor shall also clean out all debris from the existing inlet and flush the inlet and pipe run to ensure proper drainage.

3.1.4 Trench drains shall match existing drive and/or proposed gutter grade between stations 466+10.78 (19.72 LT) and 466+76.51 (20.94 LT).

4.0 Method of Measurement. Trench Drains shall be measured complete in place and will be made to the nearest foot along the geometrical center of the trench. The revision or correction will be computed and added to or deducted from the contract quantity.

5.0 Basis of Payment. Payment will be made for compliance with this provision including all labor, excavation, equipment, and material necessary with installation of the trench drain assembly at the contract unit price for pay item 604-99.03, Misc., Trench Drain, per linear foot.

HH. Modified Type A Gutter

1.0 Description. This work shall consist of constructing a Modified Type A Gutter as shown on the plans and in accordance with Section 609.10.

The Contractor shall refer to the construction plans detailing the locations with Modified Type A Gutter. The contractor shall pay special attention during construction to ensure proper drainage is achieved upon completion of construction.

2.0 Method of Measurement. Measurement will be made to the nearest linear foot along the center of the gutter.

3.0 Basis of Payment. All labor, equipment, and materials required to construct the Modified Type A Gutter as shown on the plans and by this provision will be considered completely covered by Pay Item 607-99.03, Misc., Modified Type A Gutter, per linear foot.

II. Steel Plate

1.0 Description. This work shall consist of installing a steel plate over the new Modified Type A Gutter as shown on the plans.

The Contractor shall refer to the construction plans detailing the locations of the steel plates. The contractor shall pay special attention during construction to ensure proper drainage is achieved where steel plates are installed.

The one half (1/2) inch steel slip-resistant plate shall be installed flush with the top of the Modified Type A Gutter or sidewalk and secured to the top of the angle iron. The steel slip-resistant plate shall have a minimum static coefficient of friction of 0.6 and be ADA compliant.

2.0 Method of Measurement. Measurement will be made to the nearest square foot.

3.0 Basis of Payment. All labor, equipment, and materials required to install the steel plate as shown on the plans and by this provision will be considered completely covered by Pay Item 607-99.03, Misc., Steel Plate. No direct payment will be made for other incidental items required for installation of the steel plates.

JJ. Reinforced Concrete Elliptical Culverts

1.0 Description. This work shall consist of furnishing and installing reinforced concrete elliptical culvert pipe and flared end sections as shown on the plans and in the table below.

2.0 Construction Requirements. The Contractor shall use an equivalent elliptical culvert that matches the round culvert size shown in the table below. The Contractor shall use the appropriately sized flared end section (FES) that corresponds to the type of culvert that is used. Reinforced concrete elliptical culvert pipe shall be in accordance with AASHTO M 207 and material shall be in accordance with MoDOT section 1026.

Culvert ID	Round Culvert Size	Elliptical Culvert Equivalent (HxW)	FES?
P-6060	24"	19"X30"	No
P-6070	30"	22"X34"	No
P-6080	36"	24"X38"	Yes
P-230	36"	26"x42"	Yes

3.0 Method of Measurement. Measurements for culverts will be made per Linear Foot. Measurement for Flared End Sections will be paid for by the EA. The round pipe equivalent shown in the table below is provided for reference and was used for the construction estimate.

4.0 Basis of Payment. All costs associated with furnishing and installing the elliptical culverts, flared end sections, and any additional materials, equipment or labor shall be considered completely covered by the contract unit price for the following items: No direct payment will be made for other incidental items required for installation.

Item No.	Equiv. Round Pipe Item No.	Description	Unit
730-99.03	726.10.24	Misc., 19" x 30" Reinforced Concrete Elliptical Culvert, Group A	LF
730-99.03	726.10.30	Misc., 22" x 34" Reinforced Concrete Elliptical Culvert, Group A	LF
730-99.03	726.10.36	Misc., 24" x 38" Reinforced Concrete Elliptical Culvert, Group A	LF
730-99.03	726.10.36	Misc., 26" x 42" Reinforced Concrete Elliptical Culvert, Group A	LF
732-99.02	732.06.36A	Misc., 24" x 38" or Allowed Substitute Group A Flared End Section	EA
732-99.02	732.06.36A	Misc., 26" x 42" or Allowed Substitute Group A Flared End Section	EA

KK. Double-Sided Inlet Top Lid (Stone)

1.0 Description. The existing double sided curb inlet/drop inlet SS-230 at Station 463+29.14 Route OO 23.23 LT requires a new top lid to accommodate the newly proposed sidewalk. The drainage appurtenances are to remain in place, but the top will be retrofitted for the new sidewalk.

This work shall consist of placing a new Type 3 Manhole frame and Cover and a stone 12'x6.5' double sided inlet top lid. The contractor shall ensure proper drainage is achieved following completion of work.

The contractor shall assure that the retrofit top complies to ADA laws. The contractor shall have a copy of ADA related provisions at hand for reference including the construction ADA checklist, ADA related JSPs, plans, and standard plans. If it is found that written provisions for ADA facilities are not at hand, the engineer may cause ADA work to be ceased until a copy arrives.

2.0 Method of Measurement. Measurements shall be made by the each.

3.0 Basis of Payment. All labor, equipment, and materials required to install the double-sided inlet top as shown on the plans and by this provision will be considered completely covered by Pay Item 614-99.02, Misc., Double-Sided Inlet Top Lid. Payment for the Type 3 Manhole Frame and Cover shall be covered by Pay Item 614-30.13. No direct payment will be made for other incidental items required for installation.

LL. Tinted Truck Apron Concrete Pavement (10 1/2 IN. Non-Reinforced, 15 FT. Joints)

1.0 Description. This work shall consist of furnishing all labor, materials, and equipment to install concrete pavement for all roundabout truck aprons that fully meet MoDOT specifications for bid item 502-13.34 – Concrete Pavement (10 ½ In. Non-Reinforced, 15 Ft. Joints) and includes Integral Pigment to tint the concrete “Red (Iron Oxide Cement Color).”

2.0 Work requirements. Work shall be in accordance with Divisions 500 and 1000. Work includes supplying and installing the red colored Integral Pigment in the truck apron concrete at all roundabouts. Contractor to provide submittal of the proposed Integral Pigment to MoDOT for approval.

3.0 Method of Measurement. This work will be measured as indicated on the plans, complete-in place and accepted by the engineer, as square yard quantity for all work necessary.

4.0 Basis of Payment. Payment for this work shall include all materials, labor, equipment and time necessary to install the tinted concrete as shown in the contract documents. The accepted quantity will be paid for at the contract unit price for Item 502-99.05, Misc., Tinted Truck Apron Concrete Pavement (10 1/2 IN. Non-Reinforced, 15 FT. Joints), per square yard.

MM. Relocation of Existing Sign Plates

1.0 Description. This work shall consist of relocating and mounting existing signs of various sizes to new posts at locations as shown on the signing sheets.

2.0 Construction Requirements. The contractor shall install new posts at the locations shown and then mount existing signs to the appropriate post type as summarized on sheet D-29 of the signing sheets. All work shall be in accordance with the construction requirements of Section 903.

2.1 The contractor shall exercise reasonable care during removal and handling of signs. All signs designated to be removed and relocated that are damaged due to contractor negligence shall be replaced at the contractor’s expense.

2.2 The contractor shall remove any existing sign footings to 6-inches below the adjacent ground if not covered by embankment. All work shall be in accordance with the construction requirements of Section 202.

3.0 Method of Measurement. Measurement will be made per each for relocating and mounting existing signs to new posts. Measurement for any concrete footings, structural steel posts, pipe posts, perforated square steel tubes and anchor sleeves, and breakaway assemblies will be made in accordance with Section 903.

4.0 Basis of Payment. All costs incurred for relocating and mounting existing signs to new posts at the locations shown in the plans, complete in place, will be paid for at the contract unit price for Pay Item 903-99.02, Misc., Relocate Existing Sign on New Post, per each. All costs associated with the removal of the existing post and footing shall be considered completely covered by the contract unit price for Pay Item No. 202-20.10, Removal of Improvements, per lump sum.

NN. Relocate of Central Bank Sign

1.0 Description. This work shall consist of relocating and mounting the existing Central Bank directional sign to a new posts at the location as shown on the signing sheets.

2.0 Construction Requirements. The contractor shall install a new post that consists of the same size, material, color, and height at the location shown and then mount existing sign to the new post. All work shall be in accordance with the construction requirements of Section 903.

2.1 The contractor shall exercise reasonable care during removal and handling of sign. If the sign is damaged due to contractor negligence it shall be replaced at the contractor's expense.

2.2 The contractor shall remove any existing sign footings to 6-inches below the adjacent ground. All work shall be in accordance with the construction requirements of Section 202.

3.0 Method of Measurement. Measurement will be made per lump sum.

4.0 Basis of Payment. All costs incurred for relocating and mounting existing sign to a new post at the location shown in the plans, complete in place, will be paid for at the contract unit price for Pay Item 903-99.01, Misc., Relocate Central Bank Sign on New Post, per lump sum. All costs associated with the removal of the existing post and footing shall be considered completely covered by the contract unit price for Pay Item No. 202-20.10, Removal of Improvements, per lump sum.

OO. Construction Phasing

1.0 Description. The traffic control phasing on this project was planned such that Highway OO Phases 1 and 2 would be completed first in the overall project phasing. Then work would resume or be concurrent with Highway OO on Phase 1 of the Interchange. It was contemplated that the Interchange Phase 1 would be concluding mid-May and that the Interchange Phase 1 traffic control would stay in place and work would progress from mid-May to mid-to-late August on the Chestnut Roundabout. The Chestnut Roundabout construction shall occur during the summer months when Strafford Schools are not in full session. Following completion of the Chestnut Roundabout, the Phase 2 of Interchange Phasing can begin. Highway OO must be open without impacts at the time that the Chestnut Roundabout is under construction to provide numerous unimpeded accesses to the Strafford School properties from Highway OO.

2.0 Work requirements. Contractor shall time improvements such that Chestnut Roundabout is started and completed between the dates of May 22, 2025 and August 18, 2025. Work will be in accordance with the contract plans and MoDOT Typical Applications for temporary traffic control.

3.0 Method of Measurement. Compliance with this provision will not be measured and shall be incidental to the cost of traffic control items.

4.0 Basis of Payment. Payment for this work is considered incidental to the cost of traffic control bid items.

PP. Overhead Sign Trusses

1.0 Description. This work shall consist of furnishing and installing two (2) Overhead Sign Trusses and footings as shown on the plans. All materials and construction procedures shall meet MoDOT specifications and specifically the applicable requirements listed in Sec 903 and as detailed in the MoDOT Standard Plans.

2.0 Basis of Payment. All costs associated with furnishing and installing the Overhead Sign Trusses, including the concrete footings and any additional materials, equipment, and labor, shall be considered completely covered by the contract unit price for the following items:

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>UNITS</u>
903-99.01	Misc., Type S Two Tube Overhead Sign Truss 55'-0"	LS
903-99.01	Misc., Type S Two Tube Overhead Sign Truss 79'-0"	LS
903-99.01	Misc., Type S-2316.5 Tubular Steel Support Posts Only	LS
903-99.01	Misc., Type S-23317 Tubular Steel Support Posts Only	LS

QQ. Delayed Receipt of Railroad Clearance Certification

1.0 Description. The contractor should be aware that MoDOT has not received the required Railroad Clearance certification at the time of advertisement for bid; however, MoDOT anticipates that the required Railroad Clearance Certification will be provided prior to the project's "Notice to Proceed" date for construction operations. If MoDOT cannot provide the Railroad Clearance certification prior to the project's "Notice to Proceed" notification, *the* contractor will not have access to any BNSF Railroad property until the Railroad Certifications have been provided to and reviewed by FHWA.

2.0 Basis of Payment. No direct pay shall be provided for any labor, equipment, time or materials necessary to complete this work. The contractor shall have no claim, or basis for any claim or suit whatsoever, resulting from compliance with this provision. Any allowance for time extensions, that results from a delay in railroad clearance, will be covered under Sec 108.14 of the current Missouri Standard Specifications for Highway Construction.

RR. Right-of-Way Clearance – Delayed Possession

1.0 Description. The right of way for this project has been acquired except for

- Parcel 2 (Mountainmen Inv LLC) – TCE
- Parcel 3 (Mountainmen Inv LLC) –RW and TCE
- Parcel 4 (Keiser Properties KG LLC) – TCE
- Parcel 5 (Leonard Lazzelle) – TCE

1.1 The contractor shall inform itself of the location of this tract. No encroachment, storage of equipment and materials or construction on these tracts shall be permitted until notification by the engineer is given that these tracts have been acquired.

1.2 The contractor shall schedule its work utilizing the available right of way until this tract is cleared for construction, which is estimated to be January 6, 2024. However, this date

expressly is not a warranty by or contractually binding on the Commission as the date the fifteen Tracts will be clear for construction. No encroachment, storage of equipment and materials or construction on these tracts shall be permitted until the contractor is notified by the engineer that these tracts have been acquired.

1.3 The contractor shall have no claim for damage for delay, disruption, interference or otherwise as a result of the unavailability of **Parcels listed above in Item 1.0.** The contractor may be given an extension of time upon proof of actual delay caused by the unavailability of these tracts as approved by the engineer.

SS. Required Combination of Calls JSP-17-01A

1.0 Description. The following calls are in required combination of calls and bids shall be submitted for all calls. In accordance with Sec 102.8, if bids are not submitted for all calls listed below, the bids will be considered irregular.

<u>Call</u>	<u>Job Number(s)</u>
241115-G3A	J8S3238
241115-G3B	JSRM0039

1.1 The combination of the total prices of the bids for all calls listed in section 1.0 will be used to determine the low bid. A separate contract will be executed for each call.

2.0 Per Sec 108.1.1, the contractor's organization shall perform work amounting to no less than 30 percent of the original contract price. This requirement shall apply separately to each contract in the required combination.

TT. MoDOT's Construction Workforce Program NJSP-15-17A

1.0 Description.

1.1 Projects utilizing federal funds include contract provisions for minority and female workforce utilization in the various trade crafts used to complete construction contracts. These federal contract workforce goals are described in the section labeled "Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity". These goals are included in all MoDOT federal aid contracts and are under the authorization and enforcement of the U.S. Department of Labor (US DOL).

1.2 The Federal workforce requirement (Goals – TABLE 1) is authorized in 41 CFR Part 60-4 and Executive Order 11246 which set Equal Employment Opportunity goals with Affirmative Action requirements.

1.3 The required federal aid workforce provisions noted above, coupled with the following additional contract provisions, constitute MoDOT's Construction Workforce Program herein called Program.

1.4 This provision does not require pre-qualification nor is it a condition of award.

1.5 The Program does not eliminate or limit any actions the US DOL may take in relation to this contract's federal provisions.

1.6 The Program goals included in the contract are separate from any Disadvantaged Business Enterprise (DBE) or On-The-Job (OJT) training provision that may be included as contract provisions. DBE and OJT goals may or may not be included in a contract based on the individual size of contracts, type of contract work, anticipated length of contract, available and willing resources or other reasons.

1.7 Contractor, for the purpose of this provision, means the prime contractor and any and all subcontractors.

1.8 It is expected that the contractor recognizes the construction workforce goals for both minority and female workers in the project's county and make efforts to attain those goals, if possible, through the existing workforce makeup of the prime (including subcontractors) that will be on the project and/or through hiring opportunities that may arise for the project. However, it is not the intent of this provision to compel any contractor to displace existing workforce or move workers around to just meet the workforce goals.

1.9 If the contractor's existing Missouri construction workforce meets or exceeds the federal workforce goals established in Table 1, then the OJT goal (Training Provision) if included in the contract, does not be apply.

1.10 Contractor's Workforce Plan. The Contractor shall submit its Workforce Plan a minimum of 1 week before construction starts. One plan shall be submitted for the project that shall include the cumulative planned workforce of the prime and subcontractor(s). The contractor shall prepare the plan, for total minority and female utilization, regardless of the craft. The Engineer will provide the Contractor with comments regarding their Workforce Plan prior to the start of construction. Once work starts, all monthly reporting shall include the craft of each worker reported. If the contractor's plan includes project manager, direct project support roles, project testers or other project professionals, these designations should also be included in addition to the workers designated by craft such as laborer, operator, carpenter, ironworker and others.

1.11 The plan accepted by the engineer before the start of construction will be the effort expected of the prime contractor to maintain during the life of the project.

1.12 If the contractors planned project workforce plan (including OJT hours if included in the contract) is short of the goals included in Table 1, there is opportunity for the contractor to receive a reimbursement of \$10.00 / hour for any new project minority and female hires needed through the remainder of the project. The reimbursement is applicable to work that qualifies for prevailing wage under the federal Davis-Bacon Act, 40 U.S.C. §§ 3141–3148, in accordance with an approved workforce plan. Any reimbursement must be pre-approved by the Engineer. The reimbursement is provided as a remedy to the contractor and as an aid in the long-term growth of experienced persons in the building of roads and bridges in Missouri. The contractor shall manage the plan through the life of the project as described in the plan or as modified, in coordination with the Engineer. The total amount available per project is not capped.

1.13 The Contractor's workforce plan may include existing construction support and professional services staff.

2.0 Forms and Documentation. The bidder must submit the following documents if awarded the contract:

Cumulative Workforce Utilization Reports. This report is contract specific. One report shall be submitted to the Engineer by the 15th of each month. The report will be used to report the total workforce compliance data for the prime contractor and all subcontractors retained by the

contractor on the Commission's construction contract. The reporting shall include the workforce hours per each craft broken down by gender and ethnicity. Construction Support, testing and other professional services hours shall be included as these hours are part of the overall plan. The report will include the previous month's hours worked for the project. For projects less than 60 days in length, only one report with total hours worked by classification is required at substantial completion of construction.

3.0 Methods for Securing Workforce Participation and Good Faith Efforts.

3.1 *By submitting a bid, the Bidder agrees, as a material term of the contract, to carry out MoDOT's Construction Workforce Program by making good-faith efforts to utilize minority and female workers on the contractor's job sites to the fullest extent consistent with submitting the lowest bid to MoDOT. The Bidder shall agree that the Program is incorporated into this document and agree to follow the Program. If a bidder is unable to meet the workforce goals at the time of bid, it shall be required to objectively demonstrate to MoDOT that the goals have been met or demonstrate a good faith effort has been made with the level of effort submitted prior to the start of construction.*

3.2 The Engineer, through consultation with MoDOT's External Civil Rights (ECR's) Division, may determine that the contractor has demonstrated that good-faith efforts to secure minority and female participation have been made.

3.3 In evaluating good-faith efforts, the ECR's Division will take into consideration the affirmative actions listed in the Federal Provisions (including provisions of Executive Order 11246).

3.4 MoDOT's Program allows the contractor flexibility to implement a project specific workforce and improve the diversity of their existing workforce that can be utilized across various areas of the state to meet future MoDOT Program goals and Federal Provisions.

3.5 If the contractor's approved plan changes during the project and/or the available workforce changes from what is approved at any time, it is the contractor's responsibility to remedy, in coordination with MoDOT's ECR Division, the conditions as outlined and made available through this provision.

4.0 Compliance Determination. (Required with project closeout) All documentation and on-site information will be reviewed by MoDOT's ECR Division in making a determination of whether the contractor made sufficient good faith efforts to meet the compliance with MoDOT's Construction Workforce Program.

5.0 Liquidated Damages. If the contractor elects to not submit a workforce plan prior to work starting or fails to fulfill their workforce plan committed to prior to the start of construction, the contractor will be required to establish a good-faith effort determination, as to why either of these events occurred. MoDOT may sustain damages, the exact extent of which would be difficult or impossible to ascertain, as this impacts the cost of future road and bridge construction. Therefore, in order to liquidate those damages, MoDOT shall be entitled, at its sole discretion, to deduct and withhold the following amounts: **The sum of one thousand five hundred (\$1,500)**

6.0 Administrative Reconsideration. The contractor shall be offered the opportunity for administrative reconsideration upon written request related to findings and/or actions determined by MoDOT's ECR's Division. The Administrative Reconsideration Committee shall be composed of individuals not involved in the original MoDOT determination(s).

7.0 Available Pre-Apprentice Training Programs. The Commission has established a labor force recruiting program intended to assist contractors in identifying, interviewing and hiring qualified job applicants. MoDOT strongly encourages the hiring of individuals from the MoDOT funded pre-apprentice training programs.

8.0 Independent Third-Party Compliance Monitor (Monitor). MoDOT may utilize a monitor that will be responsible for tracking the project’s workforce utilization for the information the contractor submits. The contractor and its subcontractors shall allow the monitor access to their reports, be available to answer the monitor’s questions and allow the monitor to access to the site and to contractor and subcontractor employees. The monitor shall abide by the contractor’s project site protocols.

9.0 Regional Diversity Council (Council). (Applicable to the Kansas City and St. Louis District regions only) The Council shall consist of local community leaders, leadership of local construction trades, MoDOT staff, Industry representation, and a representative(s) from the Federal Highway Administration. The Council will meet quarterly and evaluate the workforce activity per each project according to the following criteria:

- a. Review monthly workforce reports.
- b. Review progress toward the stated project workforce program.
- c. Review findings of Administrative Reconsideration hearings.
- d. Recommend *other* workforce actions to MoDOT.

10.0 Federal Workforce Goals.

Female Participation for Each Trade is 6.9% Statewide for Missouri.

Minority Participation for Each Trade is shown below in Table 1.

TABLE 1:

County	Goal (Percent)	County	Goal (Percent)
Adair	4	Linn	4
Andrew	3.2	Livingston	10
Atchison	10	McDonald	2.3
Audrain	4	Macon	4
Barry	2.3	Madison	11.4
Barton	2.3	Maries	11.4
Bates	10	Marion	3.1
Benton	10	Mercer	10
Bollinger	11.4	Miller	4
Boone	6.3	Mississippi	11.4
Buchanan	3.2	Moniteau	4
Butler	11.4	Monroe	4
Caldwell	10	Montgomery	11.4
Callaway	4	Morgan	4
Camden	4	New Madrid	26.5
Cape Girardeau	11.4	Newton	2.3
Carroll	10	Nodaway	10
Carter	11.4	Oregon	2.3

Cass	12.7	Osage	4
Cedar	2.3	Ozark	2.3
Chariton	4	Pemiscot	26.5
Christian	2	Perry	11.4
Clark	3.4	Pettis	10
Clay	12.7	Phelps	11.4
Clinton	10	Pike	3.1
Cole	4	Platte	12.7
Cooper	4	Polk	2.3
Crawford	11.4	Pulaski	2.3
Dade	2.3	Putnam	4
Dallas	2.3	Ralls	3.1
Daviess	10	Randolph	4
DeKalb	10	Ray	12.7
Dent	11.4	Reynolds	11.4
Douglas	2.3	Ripley	11.4
Dunklin	26.5	St. Charles	14.7
Franklin	14.7	St. Clair	2.3
Gasconade	11.4	St. Francois	11.4
Gentry	10	Ste. Genevieve	11.4
Greene	2	St. Louis City	14.7
Grundy	10	St. Louis County	14.7
Harrison	10	Saline	10
Henry	10	Schuyler	4
Hickory	2.3	Scotland	4
Holt	10	Scott	11.4
Howard	4	Shannon	2.3
Howell	2.3	Shelby	4
Iron	11.4	Stoddard	11.4
Jackson	12.7	Stone	2.3
Jasper	2.3	Sullivan	4
Jefferson	14.7	Taney	2.3
Johnson	10	Texas	2.3
Knox	4	Vernon	2.3
Laclede	2.3	Warren	11.4
Lafayette	10	Washington	11.4
Lawrence	2.3	Wayne	11.4
Lewis	3.1	Webster	2.3
Lincoln	11.4	Worth	10
		Wright	2.3

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION
CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)**

This contractor and subcontractor shall abide by the requirements of 41 CFR 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability or veteran status.

As used in these specifications:

"Minority" includes;

- (i) Black (all person having origins in any of the Black African racial groups not of Hispanic origin);
- (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
- (iii) Asian and pacific islander (all persons having origins in any of the original peoples of the Far East, southeast Asia, the Indian Subcontinent, or the Pacific Islands; and
- (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North American and maintaining identifiable tribal affiliations through membership and participation or community identification).

UU. Truck Mounted Attenuator (TMA) for Stationary Activities JSP-23-04

1.0 Description. Provide and maintain Truck Mounted Attenuators (TMA) in accordance with Sec 612 and as specified herein.

2.0 Construction Requirements. Truck Mounted Attenuators (TMA) shall be used for the work activities indicated in the plans or specified herein.

2.1 Ramp Two eastbound I-44 off-ramp

(a) All work on the eastbound I-44 off-ramp will require the use of a TMA.

2.2 Ramp Two westbound I-44 off-ramp

(b) All work on the westbound I-44 off-ramp will require the use of a TMA.

3.0 Method of Measurement. No measurement will be made for Truck Mounted Attenuators (TMA).

4.0 Basis of Payment. Delete Sec 612.5.1 and substitute with the following:

612.5.1 No payment will be made for truck mounted attenuators (TMAs) used in mobile operations or for any TMAs designated as optional.

612.5.1.1 Payment for TMAs required for stationary work activities will be paid for at the contract unit bid price for Item 612-30.01, Truck Mounted Attenuator (TMA), per lump sum. The lump sum payment includes all work activities that require a TMA, regardless of the number of deployments, relocations, or length of time utilized. No payment will be made for repair or replacement of damaged TMAs.

VV. Mobilization

1.0 Description. Mobilization shall be in accordance with Section 618 of the Standard Specifications. Due the cost share agreement with the City of Strafford the Mobilization will be divided into two pay items.

2.0 Basis of Payment. In addition to the requirements set forth in Section 618.2 of the Standard Specifications, payment for mobilization will be made at the contract lump sum price for items:

Item No.	Unit	Description
618-99.01	Lump Sum	Mobilization
618-99.01	Lump Sum	Mobilization – City of Strafford

WW. Contractor Furnished Surveying and Staking

2.0 Description. Contractor Furnished Surveying and Staking shall be in accordance with Section 627 of the Standard Specifications. Due the cost share agreement with the City of Strafford the Contractor Furnished Surveying and Staking will be divided into two pay items.

2.0 Basis of Payment. In addition to the requirements set forth in Section 618.2 of the Standard Specifications, payment for mobilization will be made at the contract lump sum price for items:

Item No.	Unit	Description
627-99.01	Lump Sum	Contractor Furnished Surveying and Staking
618-99.01	Lump Sum	Contractor Furnished Surveying and Staking – City of Strafford.