Job No.: JNE0003
Route: 47
County: Lincoln

JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)

(Job Special Provisions shall prevail over General Special Provisions whenever in conflict therewith.)

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Job No.: JNE0003
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County: Lincoln

STATE OF MISSOURI JEFFREY R. RENSING NUMBER PE-2006012376 PROFESSIONAL ENGINEER THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.	**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION** 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636
	OATES ASSOCIATES, INC. *720 Olive, Suite 700* *St. Louis, MO 63101* Certificate of Authority: 001166 Consultant Phone: 314-588-8381
	If a seal is present on this sheet, JSP's have been electronically sealed and dated.
	JOB NUMBER: JNE0003 LINCOLN COUNTY, MO DATE PREPARED: 2/4/2026
	ADDENDUM DATE:
Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: All	

Job No.: JNE0003
Route: 47
County: Lincoln

JOB
SPECIAL PROVISION

A. General - Federal JSP-09-02L

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 2025 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: May 18, 2026
Contract Completion Date: July 1, 2028

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
JNE0003	N/A	$2,300

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.

3.4 Any work requiring a reduction in the number of through lanes of traffic during Phase 2-1, Phase 2-2 or Phase 2-3 shall be completed during nighttime hours. Nighttime hours shall be considered to be 8:00 p.m. to 7:00 a.m. for this project.

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.

5.0 Workzone, Staging, and Order of Work Requirements. Route 47 may be closed to through traffic in Phases as shown in the traffic control plans. Work shall be in accordance with the contract plans and the conditions below.

(a) Only one Phase of roadway work shall be constructed at a time. Phases shall be constructed in numerical order as shown on the plans unless approved by the engineer. Each Phase shall be completed in its entirety prior to beginning the next Phase. Rumble Strips do not need to be installed to open a Phase to traffic. A Phase may be opened with Temporary Pavement Marking Paint in lieu of Permanent Pavement Marking Paint. No

direct payment will be made for using Temporary Pavement Marking Paint in lieu of Permanent Pavement Marking Paint.

(b) Unless specifically noted in the plans, the contractor shall maintain continuous access to all entrances and side roads on Route 47 within the project limits.

(c) The contractor shall maintain a minimum 10-foot travelway width for local traffic along Route 47 within the project limits. Access shall be traversable by light vehicles, emergency services, the postal service and school buses. The contractor's equipment may not be stored within the travelway.

(d) The posted speed limit throughout the work zone shall be lowered to provide safe travel for residents, landowners and businesses along Route 47.

(e) Pavement Edge Treatment shall be utilized as shown in the standard plans and specifications.

(f) A pilot car shall be required for any flagging operations utilized for directing local traffic through the work zone.

(g) The contractor shall adhere to the Roadway Closures During Winter JSP.

5.1 The contractor shall provide property owners, within the closed Phase, at least two weeks' notice prior to the closure of Route 47. The contractor shall provide emergency services and the Troy School District at least two weeks' notice prior to the closure of Route 47. The Troy School District contact is:

Marty Marks
Director of Transportation
Email: marksm@troy.k12.mo.gov
Phone Number: 636-462-4864

5.2 The contractor may propose alternative traffic control measures such as the one lane, one way traffic control option shown in the plans, Automated Flagger Assistance Device (AFAD), or temporary signals. All alternate traffic control measures shall be approved by the engineer prior to their use. The engineer may at any time suspend the use of an alternative traffic control measure if the contractor does not successfully demonstrate the alternative traffic control measure is effective.

6.0 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.

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 (Troop C): (636) 300-2800		
City of Troy	City of Hawk Point	Lincoln County
Fire: (636) 528-8567	Fire: (636) 338-4336	Sheriff: (636) 528-6100
Police: (636) 528-4725	Police: (636) 338-4867	Ambulance: (636) 528-8488
ALL EMERGENCIES: 911		

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

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

Keith Killen, PE, Project Contact
Northeast District
1711 S. Highway 61
Hannibal, MO 63401

Telephone Number: (660) 385-8222
Cell Number: (573) 751-1393
Email: Keith.Killen@modot.mo.gov

1.1 All questions concerning the bid document preparation can be directed to the Central Office – Design as listed below.

Telephone Number: (573) 751-2876
Email: BCS@modot.mo.gov

2.0 Upon award and execution of the contract, the successful bidder/contractor shall forward all questions and coordinate the work with the engineer listed below:

Mike Baxter, Resident Engineer
Northeast District
111 Francis Drive
Troy, MO 63379

Telephone Number: (573) 406-6525
Cell Number: (573) 406-2871
Email: Michael.Baxter@modot.mo.gov

F. Supplemental Revisions JSP-18-01KK

- 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 or Steel Products.
The contractor's attention is directed to Title 23 CFR 635.410 *Buy America Requirements*. Where articles, materials or supplies that consist wholly or predominantly of iron or steel or a combination of both 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. Predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. 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 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.

106.9.1.2 "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.

106.9.1.3 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.

106.9.1.3.1 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 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.

106.9.1.3.2 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.

106.9.1.3.3 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.

106.9.1.4 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.

106.9.2 Buy America Requirements for Construction Materials other than iron or steel products.
Construction materials mean 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

106.9.3 Buy America Requirements for Manufactured Products.
Manufactured products mean articles, materials or supplies that have been processed into a specific form and shape, or combined with other articles, materials or supplies to create a product with different properties than the individual articles, materials or supplies. If an item is classified as an iron or steel product, an excluded material, or other product category as specified by law or in 2 CFR part 184, then it is not a manufactured product. However, an article, material or supply classified as a manufactured product may include components that are iron or steel products, excluded materials, or other product categories as specified by law or in 2 CFR part 184. Mixtures of excluded materials delivered to a work site without final form for incorporation into a project are not a manufactured product.

106.9.3.1 Produced in the United States, in the case of manufactured products, means:
(A) For projects obligated on or after October 1, 2025, the product was manufactured in the United States; and
(B) For projects obligated on or after October 1, 2026, the product was manufactured in the United States and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product.

106.9.3.2 (i) With respect to precast concrete products that are classified as manufactured products, components of precast concrete products that consist wholly or predominantly of iron or steel or a combination of both shall meet the requirements of paragraph (b) of this section. The cost of such components shall be included in the applicable calculation for purposes of determining whether the precast concrete product is produced in the United States.
(ii) With respect to intelligent transportation systems and other electronic hardware systems that are installed in the highway right of way or other real property and classified as manufactured

products, the cabinets or other enclosures of such systems that consist wholly or predominantly of iron or steel or a combination of both shall meet the requirements of paragraph (b) of this section. The cost of cabinets or other enclosures shall be included in the applicable calculation for purposes of determining whether systems referred to in the preceding sentence are produced in the United States.

106.9.4 Waiver for De Minimis Costs for Manufactured and Construction Materials other than iron or steel products.
"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.

- Third-Party Test Waiver for Concrete Aggregate

1.0 Description. Third party tests may be allowed for determining the durability factor for concrete pavement and concrete masonry aggregate.

2.0 Material. All aggregate for concrete shall be in accordance with Sec 1005.

2.1 MoDOT personnel shall be present at the time of sampling at the quarry. The aggregate sample shall be placed in an approved tamper-evident container (provided by the quarry) for shipment to the third-party testing facility.

2.2 AASHTO T 161 Method B Resistance of Concrete to Rapid Freezing and Thawing, shall be used to determine the aggregate durability factor. All concrete beams for testing shall be 3-inch wide by 4-inch deep by 16-inch long or 3.5-inch wide by 4.5-inch deep by 16-inch long. All beams for testing shall receive a 35-day wet cure fully immersed in saturated lime water prior to initiating the testing process.

2.3 Concrete test beams shall be made using a MoDOT approved concrete pavement mix design.

3.0 Testing Facility Requirements. All third-party test facilities shall meet the requirements outlined in this provision.

3.1 The testing facility shall be AASHTO accredited.

3.1.1 For tests ran after January 1, 2025, accreditation documentation shall be on file with the Construction and Materials Division prior to any tests being performed.

3.1.2 Construction and Materials Division may consider tests completed prior to January 1, 2025, to be acceptable if all sections of this provision are met, with the exception of 3.1.1. Accreditation documentation shall be provided with the test results for tests completed prior to January 1, 2025. No tests completed prior to September 1, 2024, will be accepted.

3.2 The testing facility shall provide their testing process, list of equipment, equipment calibration documentation, and testing certifications or qualifications of technicians performing the AASHTO T 161 Procedure B tests. The testing facility shall provide details on their freezing and thawing apparatus including the time and temperature profile of their freeze-thaw chamber. The profile shall include the temperature set points throughout the entirety of the freeze-thaw cycle. The

profile shall show the cycle time at which the apparatus drains/fills with water and the cycle time at which the apparatus begins cooling the specimens.

3.3 Results, no more than five years old, from the third-party test facility shall compare within ±2.0 percent of an independent test from another AASHTO accredited test facility or with MoDOT test records, in order to be approved for use (e.g. test facility results in a durability factor of 79, MoDOT's recent durability test factor is 81; this compared within +2 percent). The independent testing facility shall be in accordance with this provision. The comparison test can be from a different sample of the same ledge combination.

3.4 When there is a dispute between the third party durability test results and MoDOT durability test results, the MoDOT durability test result shall govern.

3.5 Test results shall be submitted to MoDOT's Construction and Materials division electronically for final approval. Test results shall include raw data for all measurements of relative dynamic modulus of elasticity and percent length change for each individual concrete specimen. Raw data shall include initial measurements made at zero cycles and every subsequent measurement of concrete specimens. Raw data shall include the cycle count and date each measurement was taken. Test results shall also include properties of the concrete mixture as required by AASHTO T 161. This shall include the gradation of the coarse aggregate sample. If AASHTO T 152 is used to measure fresh air content, then the aggregate correction factor for the mix determined in accordance with AASHTO T 152 shall also be included.

4.0 Method of Measurement. There is no method of measurement for this provision. The testing requirements and number of specimens shall be in accordance with AASHTO T 161 Procedure B.

5.0 Basis of Payment. No direct payment will be made to the contractor or quarry to recover the cost of aggregate samples, sample shipments, testing equipment, labor to prepare samples or test samples, or developing the durability report.

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

15.0 Bidder's List Quote Summary. MoDOT is a recipient of federal funds and is required by 49 CFR 26.11 to provide data about its DBE program. All bidders who seek to work on federally assisted contracts must submit data about all DBE and non-DBEs in accordance with Sec 102.7.9. MoDOT will not compare the submitted Bidder's List Quote Summary to any other documents or submittals, pre or post award. All information will be used by MoDOT in accordance with 49 CFR 26.11 for reporting to USDOT and to aid in overall DBE goal setting**.**

- ***Add Sec 102.7.9 to include the following:***

102.7.9 Bidder's List Quote Summary. Each bidder shall submit with each bid a summary of all subcontractors, material suppliers, and service providers (e.g. hauling) considered on federally funded projects pursuant to 49 CFR 26.11. The bidder will provide the firm's name, the corresponding North American Industry Classification System (NAICS) code(s) the firm(s) were considered for, and whether or not they were used in the bid. The information submitted should be the most complete information available at the time of bid. The

information shall be disclosed on the Bidder's List Quote Summary form provided in the bidding documents and submitted in accordance with Sec 102.10. Failure to disclose this information may result in a bid being declared irregular.

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:

Utility Name	**Known Required Adjustment**	**Type**
Ameren Missouri Electric Corey Jeffers 200 N Callahan Rd. Wentzville, MO 63385 Phone: (314) 250-6732 Email: CJeffers@ameren.com Consultant to Ameren Electric: Burns & McDonnell Kris Childers Phone: (314) 257-0597 Email: kchilders@burnsmcd.com	Yes Section 2.1	Power
Ameren Missouri Gas Nathan Tannehill 167 Highway H Troy, MO 63379 Phone: (314) 818-4683 – cell Email: ntannehill@ameren.com	Yes Section 2.2	Gas
Brightspeed **(formerly Lumen – Local, CenturyLink)** Tim Howe 1151 CenturyLink Drive Wentzville, MO 63385 Phone: (765) 273-0705 Email: Tim.Howe@brightspeed.com	Yes Section 2.3	Communications

Charter Communications - Spectrum 101 Northwest Plaza St Ann, MO 63074 James Hake Phone: (314) 873-9646 Email: james.hake@charter.com Christopher Presley Phone: (636) 262-1703 Email: christopher.presley@charter.com	Yes Section 2.4	Communications
Central Electric Power Cooperative Lori Bartlett 2106 Jefferson St Jefferson City, MO 65109 Phone: (573) 280-9352 Email: lbartlett@cepc.net	None Section 2.5	Power
City of Hawk Point Josh Moran 121 West Lincoln Hawk Point, MO 63349 Phone: (636) 213-1140 Email: publicworks@hawkpointmo.com	Yes Section 2.6	Water Sanitary Sewer Sewer
City of Troy Jeff Burkemper 336 Excalibur Blvd Troy, Mo. 63379 Phone: (636) 528-4646 Email: jeff@cityoftroymissouri.com	Yes Section 2.7	Water
Cuivre River Electric Cooperative Stan Winkle 1112 E. Cherry St. Troy, MO 63379 Phone: (636) 695-4841 Email: stanw@cuivre.com	Yes Section 2.8	Power
Enbridge Inc. **(Plattte Pipeline)** Trent Kruessel 33454 US-24 Salisbury, MO 65281 Phone: (660) 621-2885 Email: trent.kruessel@enbridge.com	None Section 2.9	Petroleum Products

Gateway Fiber LLC Kirk Thoelke 501 Fountain Lakes Blvd, Suite 105 St. Charles, MO 63301 Phone: (314) 495-6318 Email: kirk.thoelke@gatewayfiber.com	Yes Section 2.10	Communications
KPL Northern States, LLC **(Flint Hills Resources)** Barry Burk 4111 East 37th Street North T-7H Wichita, KS 67220 Phone: (612) 419-4021 Email: barry.burk@fhr.com	Yes Section 2.11	Petroleum Products
Lincoln County PWSD # 2 Tina Day 40 Sydnorville Road Troy, MO 63379 Phone: (636) 462-5911 Email: pwsd2lc@aol.com	Yes Section 2.12	Water
Lumen - National Richard Obremski 11111 Dorsett Road Maryland Heights, MO 63043 Phone: (314) 378-9931 Email: richard.obremski@lumen.com	None Section 2.13	Communications
MNA-Bluebird Justin Rector 10024 Office Center Ave., Suite 201 St. Louis, MO 63128 Phone: (636) 795-5787 Email: justin.rector@bluebirdnetwork.com	Yes Section 2.14	Communications
MoDOT Northeast District Jonathan Bruner 26826 Hwy 63 Macon, MO 63552 Phone: (660) 385-8237 Email: jonathan.bruner@modot.mo.gov	None	Power Signals Streetlights Communications
Socket Telecom Adian Hammond 2703 Clark Ln Columbia, MO 65202 Phone: (636) 734-2053 Email: ahammond@corp.socket.net	Yes Section 2.15	Communications

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.

2.0 Project Specific Provisions:

2.1 Ameren Missouri Electric - has overhead service electric lines, distribution electric lines, sub-transmission electric lines, and buried facilities located throughout the project limits. These facilities need to be relocated or protected in place. Relocation of Ameren facilities is anticipated to be completed in coordination with the work. Contractors shall contact Ameren Missouri Electric 30-days prior to starting work on any of the construction phases to ensure the relocation work has been completed. Contractors shall contact Kris Childers, with Burns & McDonnell (consultant), prior to any grading to ensure contractor operations will not affect their facilities.

2.1.1 Overhead sub-transmission/three-phase distribution lines, (7) power poles and guys along the south side of Route 47 from approximately station 2000+75, 25’ RT to 2009+25, 25’ RT. Relocation is anticipated to be on south side of the route, within the new utility corridor and private easement.

2.1.2 Overhead sub-transmission/three-phase distribution lines, (1) power pole and guys located at approximate station 2000+75, 20’ LT. Relocation is anticipated to be on private easement, on the north side of the route.

2.1.3 Service poles located at approximate stations 2002+15,18’ LT and 2004+50,15’ LT. Relocation is anticipated to be on the north side of the route, within the new and existing utility corridor.

2.1.4 Service pole located at approximate station 2010+15, 15’ LT and underground electric service lines. Relocation is anticipated to be within the north existing utility corridor.

2.1.5 Overhead sub-transmission/three-phase distribution lines, (3) power poles and guys along the south side of Route 47 from approximately station 2013+00, 25’ RT to 2015+65, 25’ RT. Relocation is anticipated to be within the south existing utility corridor.

2.1.6 Service poles located at approximate stations 2014+80, 24’ LT and 2017+15, 24’ LT. Relocation is anticipated to be within the north existing utility corridor.

2.1.7 Service pole located at approximate station 2019+50, 24’ LT and underground electric service lines. Relocation is anticipated to be within the north existing utility corridor.

2.1.8 Service pole located at approximate station 2021+75, 24’ LT and underground electric service lines. Relocation is anticipated to be on the north side of the route, on private easement.

2.1.9 Overhead sub-transmission/three-phase distribution lines and (1) power pole on the south side of Route 47, at approximate station 2021+77,28' RT. Relocation is anticipated to be within the south existing utility corridor.

2.1.10 Overhead sub-transmission/three-phase distribution lines and (2) power poles on the south side of Route 47 at approximate stations 2030+25, 30' RT and 2032+80, 35' RT. Relocation is anticipated to be within the south existing utility corridor.

2.1.11 Overhead three-phase distribution lines, underground electric lines and (1) power pole with guy anchors on the north side of Route 47, at approximate station 2039+75, 39' LT. Relocation is anticipated to be on the north side of the route, within the new utility corridor.

2.1.12 Overhead sub-transmission/three-phase distribution lines, (6) power poles and guys along the south side of Route 47 from approximately station 2057+75, 35' RT to 2068+00, 39' RT. Relocation is anticipated to be on private easement, on the south side of the route.

2.1.13 Overhead sub-transmission/three-phase distribution lines, (8) power poles and guys along the south side of Route 47 from approximately station 2068+91, 37' RT to 2084+30, 36' RT. Relocation is anticipated to be on the south side of the route, within the new utility corridor.

2.1.14 Overhead three-phase distribution lines crossing Route 47 to (1) power pole has guy anchors on the north side of Route 47, at approximate station 2068+97,18' LT. Relocation of the power pole is anticipated to be on the north side of the route, within the county ROW.

2.1.15 Overhead span wire guy pole located at approximate station 2082+03,16' LT will be removed.

2.1.16 Overhead single-phase distribution lines crossing Route 47 to (1) power pole has guy anchors on the north side of Route 47, at approximate station 2097+60, 32' LT. Relocation of the power pole is anticipated to be on the north side of the route, within the new utility corridor.

2.1.17 Service pole located at approximate station 2100+10,14' LT. Relocation is anticipated to be on the north side of the route, within the new utility corridor.

2.1.18 Overhead sub-transmission/three-phase distribution lines and (1) power pole on the south side of Route 47 at approximate station 2102+19, 34' RT. Relocation is anticipated to be within the south existing utility corridor.

2.1.19 Overhead single-phase distribution lines crossing Route 47 to (1) power pole has guy anchor on the north side of Route 47 at approximate station 2106+65, 14' LT. Relocation of the power pole is anticipated to be on the north side of the route, within the new utility corridor.

2.1.20 Overhead single-phase distribution lines crossing Route 47 to (1) power pole has guy anchor on the north side of Route 47 at approximate station 2112+25, 41' LT. Relocation of the power pole is anticipated to be on the north side of the route, within the new utility corridor.

2.1.21 Overhead single-phase distribution lines and (1) power pole has guy anchor on the north side of Route 47 at approximate station 2117+45, 22' LT. Relocation of the power pole is anticipated to be on the north side of the route, on private easement.

2.1.22 Overhead single-phase distribution lines and (1) power pole has guy anchor on the north side of Route 47 at approximate station 2119+80,16' LT. Removing of these facilities is anticipated.

2.1.23 Overhead single-phase distribution lines crossing Route 47 to (1) power pole has guy anchor on the north side of Route 47, at approximate station 2120+40, 42' LT. Relocation of the power pole is anticipated to be on the north side of the route, on private easement.

2.1.24 Overhead sub-transmission/three-phase distribution lines and (2) power poles on the south side of Route 47 at approximate stations 2118+19, 35' RT and 2120+20, 32' RT. Relocation is anticipated to be within the south existing utility corridor.

2.1.25 Service pole located at approximate station 2131+50, 20' LT. Relocation is anticipated to be on the north side of the route, within the new utility corridor.

2.1.26 Overhead sub-transmission/three-phase distribution lines and (1) power pole on the south side of Route 47 at approximate station 2144+55, 40' RT. Relocation is anticipated to be within the south existing utility corridor.

2.1.27 Overhead sub-transmission/three-phase distribution lines and (1) power pole on the south side of Route 47 located at approximate station 2102+19, 34' RT. Relocation is anticipated to be within the south existing utility corridor.

2.1.28 Overhead sub-transmission/three-phase distribution lines, (18) power poles and guy anchors on the south side of Route 47 from approximately station 2168+80, 45' RT to 2193+75, 39' RT. Relocation is anticipated to be south side of the route, on private easement.

2.1.29 Secondary/service wire and pole located at approximate station 2182+84,153' LT. Removing of these facilities is anticipated.

2.1.30 Overhead sub-transmission/three-phase distribution lines and (1) power pole on the south side of Route 47 at approximate station 2208+20, 40' RT. Relocation is anticipated to be within the south existing utility corridor.

2.1.31 Overhead single-phase distribution lines and (1) power pole has guy anchor on the north side of Route 47 located at approximate station 2208+65, 20' LT. Relocation is anticipated to be on private easement, on the north side of the route.

2.1.32 Overhead sub-transmission/three-phase distribution lines and (29) power poles with guy anchors on the south side of Route 47 from approximately station 2215+45, 36' RT to 2272+87, 33' RT. Relocation is anticipated to be on private easement, on the south side of the route.

2.1.33 Overhead single-phase distribution lines and (1) power pole with guy anchor on the south side of Route 47 at approximate station 2242+80, 30' RT. Relocation is anticipated to be on the south side of the route, within the county ROW. The new location will be within the construction limits, but no conflict is anticipated.

2.1.34 Overhead single-phase distribution lines crossing Route 47 to (1) power pole has guy anchor on the north side of Route 47, at approximate station 2283+15, 40' LT. Relocation is anticipated to be on the north side of the route, within the county ROW.

2.1.35 Overhead single-phase distribution lines crossing Route 47 to (1) power pole has guy anchor on the north side of Route 47 at approximate station 2324+00, 40' LT. Relocation of the power pole is anticipated to be on the north side of the route, on private easement.

2.1.36 Overhead single-phase distribution lines crossing Route 47 to (1) power pole has guy anchors on the north side of Route 47 at approximate station 2335+35, 45' LT. Relocation of the power pole is anticipated to be on the north side of the route, within the new utility corridor.

2.1.37 Overhead service lines crossing Route 47 to power pole located at approximate station 2337+25, 25' LT. Relocation of the power pole is anticipated to be on the north side of the route, on private easement.

2.1.38 Overhead sub-transmission/three-phase distribution lines, (9) power poles and guy anchors on the south side of Route 47 from approximately station 2335+25, 39' RT to 2344+35, 30' RT. Relocation is anticipated to be on the south side of the route, on private easement, existing utility corridor and new utility corridor.

2.1.39 Overhead single phase and (3) power poles with guy anchors located at approximate stations 2344+45, 71' LT, 2345+72, 30' LT and 2347+90, 30' LT. Removing of these facilities is anticipated.

2.1.40 Overhead sub-transmission/three-phase distribution lines and (4) power poles on the north side of Route 47 from approximately station 2344+65, 30' LT to 2349+05, 108' LT. Relocation of these facilities is anticipated to be on private easement, on the north side of the route.

2.1.41 Guy anchor located at approximately station 2360+10, 100' LT. Adjustment of the guying is anticipated to be out of the construction limits.

2.1.42 Overhead sub-transmission/three-phase distribution lines and (1) power pole on the south side of Route 47, at approximate station 2099+67, 39' RT. Relocation is not anticipated and will remain as protect in place during construction.

2.1.43 Overhead sub-transmission/three-phase distribution lines and (1) power pole on the south side of Route 47 at approximate station 2283+15, 30' RT. Relocation is not anticipated and will remain as protect in place during construction.

2.2 Ameren Missouri Gas - has facilities located throughout the project limits. These facilities will be relocated, protected in place, or abandoned. Relocation of Ameren facilities is anticipated to be completed in coordination with the work. Removal of any abandoned facilities within the proposed grading and work will be considered incidental to Removal of Improvements and shall be coordinated with Ameren staff. Contractors shall contact Ameren Missouri Gas 30-days prior to starting work on any of the construction phases to ensure the relocation work has been completed. Contractors shall contact Nathan Tannehill, with Ameren Missouri Gas, prior to any grading to ensure contractor operations will not affect their facilities.

2.2.1 2-inch PE gas main runs along the north side of Route 47 from approximately station 2000+55, 54' LT to 2004+40, 31' LT. Relocation is not anticipated and will remain as protect in place during construction.

2.2.2 2-inch PE gas valve were located at approximate station 2000+25, 52' LT. Ameren relocated the gas valve out of the proposed construction limits. Ameren relocated the existing crossing from the west of Route D to the gas valve accordingly. The existing crossing will be abandoned.

2.2.3 6-inch PE gas main crosses Route 47 at approximate station 2120+37. A new main will be installed deeper near the existing crossing. The existing crossing will be abandoned.

2.2.4 2-inch PE gas main crosses Route 47 at approximate station 2228+17. Relocation is anticipated to be at approximate station 2228+24. The existing crossing will be abandoned.

2.2.5 6-inch PE gas main runs along the south side of Route 47 from approximately station 2227+80, 30' RT to 2274+60, 30' RT. Relocation is anticipated to be on the south of the route, on private easement. The existing facilities will be abandoned.

2.2.6 2-inch PE gas crosses Route 47 at approximate station 2241+00. Relocation is anticipated to be at approximate station 2242+00. The existing crossing will be abandoned.

2.2.7 6-inch PE gas main crosses Route 47 at approximate station 2256+93. Relocation is anticipated to be at approximate station 2263+80, the new crossing will be 4-inch PE gas main. The existing crossing will be abandoned.

2.2.8 6-inch gas main runs on the south side of Route 47 near a proposed culvert location, from approximately station 2308+50, 47' RT to 2308+80, 47' RT. After completion of the proposed grading, the gas line is anticipated to have 12 inch of cover over the line. Relocation is not anticipated and will remain as protect in place during construction.

2.2.9 6-inch high pressure gas main crosses Route 47 at approximate station 2311+11. After completion of the proposed grading, the gas line is anticipated to have 24 inch of cover over the line. Relocation is not anticipated and will remain as protect in place during construction.

2.2.10 6-inch PE gas main runs along the south side of Route 47 from approximate station 2334+60, 43' RT to 2338+00, 46' RT. Relocation is not anticipated and will remain as protect in place during construction.

2.2.11 6-inch PE gas main runs along the south side of Route 47 from approximately station 2338+00, 50' RT to 2341+60, 37' RT. Relocation is anticipated to be on the south side of the route, within the new utility corridor. The existing facilities will be abandoned.

2.2.12 6-inch PE gas main runs along the south side of Route 47 from approximately station 2341+60, 37' RT to 2343+50, 43' RT. Relocation is not anticipated and will remain as protect in place during construction.

2.2.13 4-inch gas main crosses Route 47 at approximate station 2337+55. Relocation is anticipated to be at approximate station 2344+25. The existing crossing will be abandoned.

2.3 Brightspeed - has buried and overhead facilities located throughout the project limits. Brightspeed has buried facilities running along both the north and south side of the route. These buried facilities will be relocated and abandoned. Relocation of Brightspeed facilities is anticipated to be completed in coordination with the work. Contractors shall contact Brightspeed 30-days prior to starting work on any of the construction phases to ensure the relocation work has been

completed. Contractors shall contact Tim Howe, with Brightspeed, prior to any grading to ensure contractor operations will not affect their facilities.

2.3.1 Overhead communication line attached to the power poles located from approximately station 2013+00, 25' RT to 2015+65, 25' RT. These facilities require adjustment in coordination with Ameren Electric relocation work.

2.3.2 Overhead communication line attached to the power poles located at approximate stations 2021+77, 28' RT, 2030+25, 30' RT and 2032+80, 35'RT. These facilities require adjustment in coordination with Ameren Electric relocation work.

2.3.3 Overhead communication line crosses the route to communication pole located at approximate station 2037+84, 17' LT. Removing of the communication pole is anticipated. Brightspeed will bore a new crossing at this location, if needed.

2.3.4 Overhead communication line crosses the route to communication pole located at approximate station 2046+39, 26' LT. Removing of the communication pole is anticipated. Brightspeed will bore a new crossing at this location, if needed.

2.3.5 Overhead communication line attached to the power poles located from approximately station 2057+75, 35' RT to 2068+00, 39' RT. These facilities require adjustment in coordination with Ameren Electric relocation work.

2.3.6 Overhead communication line crosses the route and is attached to the power pole located at approximate station 2068+97,18' LT. These facilities require adjustment in coordination with Ameren Electric relocation work. Ameren will remove the pole. Brightspeed will bore a new crossing at this location, if needed.

2.3.7 Communication device attached to the span wire guy pole located at approximate station 2082+03,16' LT. This device will be relocated in coordination with Ameren Electric relocation work. Ameren will remove the pole. Brightspeed will install a new device in a different location then remove the existing device.

2.3.8 Overhead communication line crosses the route to communication pole located at approximate station 3310+60, 23' LT. Removing of the communication pole is anticipated. Brightspeed will bore a new crossing at this location, if needed.

2.4 Charter Communications – has overhead communication facilities located throughout the project limits. These facilities are attached to Ameren Missouri Electric and Cuivre River Electric Cooperative power poles. Relocation of Charter facilities is anticipated to be completed in coordination with the work. Contractors shall contact Charter 30-days prior to starting work on any of the construction phases to ensure the relocation work has been completed. Contractors shall contact Christopher Presley, with Charter, prior to any grading to ensure contractor operations will not affect their facilities.

2.4.1 Overhead communication line attached to the power poles located at approximate stations 2283+15, 40' LT, 2335+35, 45' LT and 2336+16, 55' RT. These facilities require adjustment in coordination with Ameren Electric relocation work.

2.4.2 Overhead communication line attached to the power poles located from approximately station 2335+25, 39' RT to 2344+35, 30'. These facilities require adjustment in coordination with Ameren Electric relocation work.

2.4.3 Overhead communication line attached to the power poles located from approximately station 2344+65, 30' LT to 2349+05, 108' LT. These facilities require adjustment in coordination with Ameren Electric relocation work.

2.4.4 Overhead communication line attached to the power poles located from approximately station 2270+00, 44' LT to 2296+75, 17' LT. These facilities require adjustment in coordination with Cuivre River Electric Cooperative relocation work.

2.4.5 Overhead communication line attached to the power pole located at approximate station 2283+15, 41' LT. These facilities require adjustment in coordination with Cuivre River Electric Cooperative relocation work.

2.5 Central Electric Power Cooperative (CEPC) – has overhead electrical transmission lines crosses Route 47 at approximate station 2343+30 but no conflict is anticipated. Missouri Statutes state that all construction equipment should stay at least 10 ft away from the transmission lines. If the contractors believe that equipment may not be able to maintain that clearance during construction, contractors shall contact CEPC. Contractor questions may be directed to Lori Bartlett with CEPC.

2.6 City of Hawk Point – has buried water and sewer facilities throughout the project limits from approximately station 2000+00 to 2055+00. These facilities will be relocated, protected in place, or abandoned. Contractors shall contact Josh Moran, with City of Hawk Point, prior to any grading to ensure contractor operations will not affect their facilities.

2.6.1 City of hawk Point has buried sanitary sewer line runs along the south side of the Route 47 from approximately station 2000+00 to 2014+50. Relocation is not anticipated and will remain as protect in place during construction. The City has several manhole covers that may need to be adjusted to the proposed route grade. With a two-week notice, the City will prepare the adjusting rings. Once proposed grade has been established by the contractor, a minimum of two working days shall be allowed for coordination and adjustment of the utility facilities.

2.6.2 City of Hawk Point has buried water line facilities running along the north side of the Route 47 from approximately station 2000+00, 42' LT to 2005+93, 38' LT and from approximately station 2017+60, 33' LT to 2024+00, 50' LT. The City has two water line crossings on Route 47 at approximate stations 2003+00 and 2018+00. The water line depth varies from 36 to 72 inch throughout. Relocation is not anticipated and will remain as protect in place during construction.

2.6.3 City of Hawk Point has an 8-inch water transmission main runs along the north side of Route 47 from approximately station 2028+00 to 2054+75. City of Hawk Point has a 6-inch water main runs along the north side of Route 47 from approximately station 2030+80 to 2041+32. These facilities require adjustment, and the relocation work is included in the roadway project. Removal of any abandoned facilities within the proposed grading and work will be considered incidental to Removal of Improvements and shall be coordinated with City of Hawk Point staff.

2.7 City of Troy - has facilities located throughout the project limits on the south side of the route from approximately station 2042+35 to 2308+77. These facilities will be relocated, protected in place, or abandoned. Relocation of the City facilities is anticipated to be completed in coordination

with the work. Contractors shall contact City of Troy 30-days prior to starting work on any of the construction phases to ensure the relocation work has been completed. Contractors shall contact Jeff Burkemper, with City of Troy, prior to any grading to ensure contractor operations will not affect their facilities.

2.7.1 10-inch PVC waterline crosses Linns Mill Road, located from approximately station 2242+34, 61' RT to 2242+87, 22' RT. This crossing requires adjustment, the new crossing location will be within the south utility corridor. Removal of any abandoned facilities within the proposed grading and work will be considered incidental to Removal of Improvements and shall be coordinated with City of Troy staff.

2.7.2 10-inch PVC waterline runs along the south side of Route 47 from approximately station 2242+85', 22' RT to 2271+00, 35' RT. These facilities require adjustment to be within the south utility corridor. Removal of any abandoned facilities within the proposed grading and work will be considered incidental to Removal of Improvements and shall be coordinated with City of Troy staff.

2.7.3 Two fire hydrants located at approximate stations 2248+90, 15' RT and 2258+93, 9' RT will be removed.

2.7.4 City of Troy has 10-inch PVC water line runs along the south side of Route 47 from approximately station 2308+50, 53' RT to 2308+77, 53' RT. These facilities are near a proposed culvert location. Relocation is not anticipated and will remain as protect in place during construction.

2.8 Cuivre River Electric Cooperative (CREC) - has three-phase overhead electric distribution lines, single-phase overhead distribution lines and buried facilities located throughout the project limits. These facilities will be relocated or protected in place. Relocation of CREC facilities is anticipated to be completed in coordination with the work. Contractors shall contact CREC 30-days prior to starting work on any of the construction phases to ensure the relocation work has been completed. Contractors shall contact Stan Winkle, with Cuivre River Electric Cooperative, prior to any grading to ensure contractor operations will not affect their facilities.

2.8.1 Three-phase overhead distribution lines, power poles and guys running along the north side of Route 47 from approximately station 2270+00, 44' LT to 2282+75, 19' LT. Relocation is anticipated to be on the north side of the route, within the new utility corridor.

2.8.2 Single-phase overhead distribution lines, power poles and guys running along the north side of Route 47 from approximately station 2282+75, 19' LT to 2296+75, 17' LT. Relocation is anticipated to be on the north side of the route, within the new utility corridor.

2.8.3 Three-phase overhead distribution lines crossing Route 47 at approximate station 2283+15 and one power pole located at approximate station 2283+15, 41' LT. Removing of the power pole is anticipated. The crossing will be attached to a new power pole, at approximate station 2283+20, 76' LT.

2.8.4 Underground electric line crosses Route 47 at approximate station 2296+78. Reboring of this crossing is anticipated.

2.8.5 Underground electric line runs along the north side of Route 47 from approximately station 2004+25, LT to 2007+75, LT. Underground electric line crosses Route 47 at approximate stations

2007+75 and 2337+75. Relocation is not anticipated and will remain as protect in place during construction.

2.9 Enbridge Inc. **(Platte Pipeline)** - has a 20-inch steel crude oil pipeline that crosses Route 47 on a skew at approximate station 2352+83. Relocation is not anticipated and will remain as protect in place during construction. The contractor shall use caution to not damage the existing pipeline during construction activities when working near these facilities. Prior to the start of work, the contractor shall coordinate with Trent Kruessel from Enbridge regarding the construction schedule and proposed equipment to be used within 50' of the pipeline.

2.9.1 The contractor shall maintain a minimum 42 inch of cover over the pipeline at all points, including ditches, during the project. No vibrating equipment shall be used outside the paved surface of Route 47 within 50 feet of the pipeline. No tracked equipment with greater than 15 pounds per square inch (PSI) ground pressure, unless approved by Enbridge, is allowed within 50 feet of pipeline crossing location. If construction equipment will be crossing the pipeline, construction matting will be required in the ditches within 50 feet of pipeline crossing location.

2.10 Gateway Fiber LLC - has buried communication facilities located throughout the project limits. These facilities will be relocated, protected in place, or abandoned. Relocation of Gateway Fiber facilities is anticipated to be completed in coordination with the work. Contractors shall contact Gateway Fiber 30-days prior to starting work on any of the construction phases to ensure the relocation work has been completed. Contractors shall contact Kirk Thoelke, with Gateway Fiber, prior to any grading to ensure contractor operations will not affect their facilities.

2.10.1 Buried communication line runs along the south side of Route 47 from approximately station 2000+00 to 2010+37. Relocation is anticipated to be on the south side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.10.2 Buried communication line runs along the north side of Route 47 from approximately station 2010+37 to 2041+87. Relocation is anticipated to be on the north side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.10.3 Buried communication line runs along the south side of Route 47 from approximately station 2055+63 to 2068+70. Relocation is anticipated to be on the south side of the route, within the new utility corridor. The existing facilities will be abandoned.

2.10.4 Buried communication line runs along the south side of Route 47 from approximately station 2215+00 to 2228+26. Relocation is anticipated to be on the south side of the route, within the new utility corridor. The existing facilities will be abandoned.

2.10.5 Buried communication line runs along the north side of Route 47 from approximately station 2264+00 to 2282+60. Relocation is anticipated to be on the north side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.10.6 Buried communication line runs along the south side of Route 47 from approximately station 2334+20 to 2344+05. Relocation is anticipated to be on the south side of the route, within the new utility corridor. The existing facilities will be abandoned.

2.10.7 Relocation is anticipated for the existing Route 47 crossings located at approximate stations 2010+37, 2041+87, 2068+70, 2120+19, 2228+26, 2242+58, 2272+00, 2282+60, 2317+43 and 2336+54. The existing facilities will be abandoned.

2.10.8 Relocation of the following existing facilities (Gateway and Bluebird Joint) is not anticipated, and they will remain as protect in place during construction.

Buried communication line runs along the north side of Route 47 from approximately station 2000+00 to 2004+50. Buried communication line runs along south side of Route 47 from approximately station 2041+87 to 2055+63. Buried communication line runs along the south side of Route 47 from approximately station 2068+70 to 2168+75. Buried communication line runs along north side of Route 47 from approximately station 2168+75 to 2185+00. Buried communication line runs along the south side of Route 47 from approximately station 2185+00 to 2215+00. Buried communication line runs along the north side of Route 47 from approximately station 2228+26 to 2264+00. Buried communication line runs along the south side of Route 47 from approximately station 2282+60 to 2334+20. Buried communication line runs along the south side of Route 47 from approximately station 2344+05 to 2353+30. Buried communication line runs along the north side of Route 47 from approximately station 2352+00 to 2365+00. Buried communication lines crossing Roue 47 at approximate Stations 2002+04 and 2353+30

2.11 KPL Northern States, LLC (Flint Hills Resources) – has a 20-inch steel crude oil pipeline that crosses Route 47 on a skew at approximate station 2149+80. The existing pipeline casing vent will be extended to the new ROW line on the north side of the route. This adjustment is anticipated to be completed in coordination with the work. Contractors shall contact Flint Hills Resources 30-days prior to starting work on this location to ensure the new pipeline casing vent has been installed. Contractors shall contact Barry Burk, with Flint Hills Resources, prior to any grading to ensure contractor operations will not affect their facilities.

2.12 Lincoln County PWSD # 2 (LCPWSD #2) - has facilities located throughout the project limits. LCPWSD # 2 has a 6-inch water main crossing Route 47 at approximate station 2268+30. This crossing is anticipated to be relocated to approximate station 2268+35. The existing 6-inch water main crossing will be abandoned. LCPWSD #2 has a 6-inch PVC water main running along the south side of the route from approximately station 2268+22, 8' RT to 2273+25, 43' RT. Relocation of the water main is anticipated to be on south side of the route within the new utility corridor. The existing 6-inch water main will be abandoned. Removal of any abandoned facilities within the proposed grading and work will be considered incidental to Removal of Improvements and shall be coordinated with LCPWSD #2 staff. Relocation of the facilities is anticipated to be completed in coordination with the work. Contractors shall contact LCPWSD #2 30-days prior to starting work on any of the construction phases to ensure the relocation work has been completed. Contractors shall contact Tina Day, with LCPWSD #2, prior to any grading to ensure contractor operations will not affect their facilities.

2.13 Lumen National – has a buried abandoned 4 count fiber cable along the south side of Route 47 from approximately station 2000+00 to 2028+75 crossing at approximate station 2028+75 then along the north side of the route from approximately station 2028+75 to 2353+20. This 4 count fiber cable is an ATT manufacture cable, and it is direct buried (no casing). These facilities are abandoned, Contractor questions may be directed to Richard Obremski, Lumen-National.

2.14 MNA-Bluebird - has buried communication facilities located throughout the project limits. These facilities will be relocated, protected in place, or abandoned. Relocation of Bluebird facilities is anticipated to be completed in coordination with the work. Contractors shall contact Bluebird 30-days prior to starting work on any of the construction phases to ensure the relocation work has been completed. Contractors shall contact Justin Rector, with MNA-Bluebird, prior to any grading to ensure contractor operations will not affect their facilities.

2.14.1 Buried communication line runs along the south side of Route 47 from approximately station 2000+00 to 2010+37. Relocation is anticipated to be on the south side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.14.2 Buried communication line runs along the north side of Route 47 from approximately station 2010+37 to 2041+87. Relocation is anticipated to be on the north side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.14.3 Buried communication line runs along the south side of Route 47 from approximately station 2055+63 to 2068+70. Relocation is anticipated to be on the south side of the route, within the new utility corridor. The existing facilities will be abandoned.

2.14.4 Buried communication line runs along the south side of Route 47 from approximately station 2215+00 to 2228+26. Relocation is anticipated to be on the south side of the route, within the new utility corridor. The existing facilities will be abandoned.

2.14.5 Buried communication line runs along the north side of Route 47 from approximately station 2264+00 to 2282+60. Relocation is anticipated to be on the north side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.14.6 Buried communication line runs along the south side of Route 47 from approximately station 2334+20 to 2344+05. Relocation is anticipated to be on the south side of the route, within the new utility corridor. The existing facilities will be abandoned.

2.14.7 Relocation is anticipated for the existing Route 47 crossings located at approximate stations 2010+37, 2041+87, 2228+26, and 2282+60. The existing facilities will be abandoned.

2.14.8 See section 2.10.8 for the existing facilities that are not anticipated to be relocated and will remain as protect in place during construction.

2.15 Socket Telecom - has buried communication facilities located throughout the project limits. These facilities will be relocated, protected in place, or abandoned. Relocation of Socket facilities is anticipated to be completed in coordination with the work. Contractors shall contact Socket 30-days prior to starting work on any of the construction phases to ensure the relocation work has been completed. Contractors shall contact Adian Hammond, with Socket, prior to any grading to ensure contractor operations will not affect their facilities.

2.15.1 Buried communication line runs along the south side of Route 47 from approximately station 2010+25 to 2015+58. Relocation is anticipated to be on the south side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.15.2 Buried communication line runs along the south side of Route 47 from approximately station 2027+80 to 2040+30. Relocation is anticipated to be on the south side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.15.3 Buried communication line runs along the south side of Route 47 from approximately station 2055+48 to 2092+07. Relocation is anticipated to be on the south side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.15.4 Buried communication line runs along the south side of Route 47 from approximately station 2099+60 to 2105+26. Relocation is anticipated to be on the south side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.15.5 Buried communication line runs along the south side of Route 47 from approximately station 2112+45 to 2121+07. Relocation is anticipated to be on the south side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.15.6 Buried communication line runs along the south side of Route 47 from approximately station 2166+34 to 2193+75. Relocation is anticipated to be on the south side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.15.7 Buried communication line runs along the south side of Route 47 from approximately station 2206+00 to 2227+39. Relocation is anticipated to be on the south side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.15.8 Buried communication line crosses Route 47 located at approximate station 2227+30. Reboring the crossing is anticipated. The existing facilities will be abandoned.

2.15.9 Buried communication line runs along the north side of Route 47 from approximately station 2248+22 to 2252+37. Relocation is anticipated to be on the north side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.15.10 Buried communication line runs along the north side of Route 47 from approximately station 2263+46 to 2351+14. Relocation is anticipated to be on the north side of the route, within the new and existing utility corridor. The existing facilities will be abandoned.

2.15.11 Buried communication line crosses Route 47 at approximate station 2351+14. Reboring the crossing is anticipated. The existing facilities will be abandoned.

2.15.12 Relocation of the following existing facilities is not anticipated, and they will remain as protect in place during construction:

Buried communication line runs along the south side of Route 47 from approximately station 2000+00 to 2010+25. Buried communication line runs along the south side of Route 47 from approximately station 2015+58 to 2027+80. Buried communication line runs along the south side of Route 47 from approximately station 2040+30 to 2055+48. Buried communication line runs along the south side of Route 47 from approximately station 2092+07 to 2099+60. Buried communication line runs along the south side of Route 47 from approximately station 2105+26 to 2112+45. Buried communication line runs along the south side of Route 47 from approximately station 2121+07 to 2166+34. Buried communication line runs along the south side of Route 47 from approximately station 2193+75 to 2206+00. Buried communication line runs along the north side of Route 47 from approximately station 2227+30 to 2248+22. Buried communication line runs along the north side of Route 47 from approximately station 2252+37 to 2263+46. Buried communication line runs along the south side of Route 47 from approximately station 2351+14 to 2354+75.

H. 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.

I. Clean Water Act Requirements NJSP 21-02

1.0 Description. The Contractor shall be aware that any work within streams, wetlands, or special aquatic sites requires a Section 404 permit from the Corps of Engineers.

2.0 The project meets the conditions of the following listed permits with no pre-construction notification to the Corps of Engineers:

Section 404 Nationwide Permit 14 (Linear Transportation Projects)

3.0 The Contractor shall abide by all general conditions of Section 404 and 401 Permits, and specific conditions of the following listed Nationwide Permit found in the General Provisions and Supplemental Specifications to the current Missouri Standard Specifications for Highway Construction referenced in this contract.

Section 404 Nationwide Permit 14 (Linear Transportation Projects)

3.1 If there are any changes to the scope or limits to the project, the Contractor must notify the Engineer who will then notify the MoDOT Environmental Section to verify that the project still meets permit conditions.

3.2 No additional time will be added to the contract for the contractor to obtain any permits.

4.0 Basis of Payment. There will be no direct payment for compliance with this provision.

J. Contractor Quality Control NJSP-15-42

1.0 The contractor shall perform Quality Control (QC) testing in accordance with the specifications and as specified herein. The contractor shall submit a Quality Control Plan (QC Plan) to the engineer for approval that includes all items listed in Section 2.0, prior to beginning work.

2.0 Quality Control Plan.

(a) The name and contact information of the person in responsible charge of the QC testing.
(b) A list of the QC technicians who will perform testing on the project, including the fields in which they are certified to perform testing.
(c) A proposed independent third party testing firm for dispute resolution, including all contact information.
(d) A list of Hold Points, when specified by the engineer.
(e) The MoDOT Standard Inspection and Testing Plan (ITP). This shall be the version that is posted at the time of bid on the MoDOT website (www.modot.org/quality).

3.0 Quality Control Testing and Reporting. Testing shall be performed per the test method and frequency specified in the ITP. All personnel who perform sampling or testing shall be certified in the MoDOT Technician Certification Program for each test that they perform.

3.1 Reporting of Test Results. All QC test reports shall be submitted as soon as practical, but no later than the day following the test. Test data shall be immediately provided to the engineer upon request at any time, including prior to the submission of the test report. No payment will be made for the work performed until acceptable QC test results have been received by the engineer and confirmed by QA test results.

3.1.1 Test results shall be reported on electronic forms provided by MoDOT. Forms and Contractor Reporting Excel2Oracle Reports (CRE2O) can be found on the MoDOT website. All required forms, reports and material certifications shall be uploaded to a Microsoft SharePoint® site provided by MoDOT, and organized in the file structure established by MoDOT.

3.2 Non-Conformance Reporting. A Non-Conformance Report (NCR) shall be submitted by the contractor when the contractor proposes to incorporate material into the work that does not meet the testing requirements or for any work that does not comply with the contract terms or specifications.

3.2.1 Non-Conformance Reporting shall be submitted electronically on the Non-Conformance Report form provided on the MoDOT Website. The NCR shall be uploaded to the MoDOT SharePoint® site and an email notification sent to the engineer.

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

4.0 Work Planning and Scheduling.

4.1 Two-week Schedule. Each week, the contractor shall submit to the engineer a schedule that outlines the planned project activities for the following two-week period. The two-week schedule shall detail all work and traffic control events planned for that period and any Hold Points specified by the engineer.

4.2 Weekly Meeting. When work is active, the contractor shall hold a weekly project meeting with the engineer to review the planned activities for the following week and to resolve any outstanding issues. Attendees shall include the engineer, the contractor superintendent or project manager and any foreman leading major activities. This meeting may be waived when, in the opinion of the engineer, a meeting is not necessary. Attendees may join the meeting in person, by phone or video conference.

4.3 Pre-Activity Meeting. A pre-activity meeting is required in advance of the start of each new activity, except when waived by the engineer. The purpose of this meeting is to review construction details of the new activity. At a minimum, the discussion topics shall include: safety precautions, QC testing, traffic impacts, and any required Hold Points. Attendees shall include the engineer, the contractor superintendent and the foreman who will be leading the new activity. Pre-activity meetings may be held in conjunction with the weekly project meeting.

4.4 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, in the opinion of the engineer, a review of the preceding work is necessary before continuation to the next stage.

4.4.1 A list of typical Hold Point events is available on the MoDOT website. Use of the Hold Point process will only be required for the project-specific list of Hold Points, if any, that the engineer submits to the contractor in advance of the work. The engineer may make changes to the Hold Point list at any time.

4.4.2 Prior to all Hold Point inspections, the contractor shall verify the work has been completed in accordance with the contract and specifications. 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. Re-scheduling of Hold Points require a minimum 24-hour advance notification from the contractor unless otherwise allowed by the engineer.

5.0 Quality Assurance Testing and Inspection. MoDOT will perform quality assurance testing and inspection of the work, except as specified herein. The contractor shall utilize the inspection checklists provided in the ITP as a guide to minimize findings by MoDOT inspection staff. Submittal of completed checklists is not required, except as specified in 5.1.

5.1 Inspection and testing required in the production of concrete for the project shall be the responsibility of the contractor. Submittal of the 501 Concrete Plant Checklist is required.

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

K. <u>Protection of Enbridge Pipeline Facilities</u>

1.0 Description. Enbridge Inc. has a 20-inch steel pipeline crossing Route 47 at Station 2352+83. The contractor shall use caution when working near these facilities. Prior to the start of work, the contractor shall coordinate with Enbridge regarding the construction schedule and proposed equipment to be used within 50' of the pipeline.

1.1 Construction Requirements. The contractor shall maintain a minimum 42" of cover over the pipeline at all points, including ditches, during the project. No vibrating equipment shall be used outside the paved surface of Route 47 within 50' of the pipeline. No tracked equipment with greater than 15 pounds per square inch (PSI) ground pressure, unless approved by Enbridge, is allowed within 50' of pipeline crossing location. If construction equipment will be crossing the pipeline, construction matting will be required in the ditches within 50' of pipeline crossing location.

2.0 Notification of the contractor's schedule and equipment list may be made to:

Trent Kruessel, Senior Regional Engineer
33454 US-24
Salisbury, MO 65281
Email: trent.kruessel@enbridge.com
Cell # 660-621-2885

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

L. Removal of Concrete Posts

1.0 Description. Existing concrete posts set at the property lines on Parcel 51 and Parcel 52 shall be removed and placed on the adjacent property as directed by the engineer. The contractor's removal method shall minimize the damage to the concrete posts.

2.0 Basis of Payment. All costs associated with removal of concrete posts shall be completely covered by the contract unit price for Item No. 202-20.10, "Removal of Improvements", per lump sum.

M. 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.

N. Lump Sum Temporary Traffic Control JSP-22-01B

1.0 Delete Sec 616.11 and insert the following:

616.11 Method of Measurement. Measurement for relocation of post-mounted signs will be made to the nearest square foot of sign area only for the signs designated for payment on the plans. All other sign relocations shall be incidental. Measurement for construction signs will be made to the nearest square foot of sign area. Measurement will be made per each for each of the temporary traffic control items provided in the contract.

616.11.1 Lump Sum Temporary Traffic Control. No measurement will be made for temporary traffic control items grouped and designated to be paid per lump sum. The list of lump sum items provided in the plans or contract is considered an approximation and may be subject to change based on field conditions. This is not a complete list and may exclude quantities for duplicate work zone packages used in simultaneous operations. The contractor shall provide all traffic control devices required to execute the provided traffic control plans for each applicable operation, stage, or phase. No measurement will be made for any additional signs or devices needed except for changes in the traffic control plan directed by the engineer.

2.0 Delete Sec 616.12 and insert the following:

616.12 Basis of Payment. All temporary traffic control devices authorized for installation by the engineer will be paid for at the contract unit price for each of the pay items included in the contract. Whether the devices are paid individually, or per lump sum, no direct payment will be made for the following:

(a) Incidental items necessary to complete the work, unless specifically provided as a pay item in the contract.

(b) Installing, operating, maintaining, cleaning, repairing, removing, or replacing traffic control devices.

(c) Covering and uncovering existing signs and other traffic control devices.

(d) Relocating temporary traffic control devices, including permanent traffic control devices temporarily relocated, unless specifically included as a pay item in the contract.

(e) Worker apparel.

(f) Flaggers, AFADs, PFDs, pilot vehicles, and appurtenances at flagging stations.

(g) Furnishing, installing, operating, maintaining, and removing construction-related vehicle and equipment lighting.

(h) Construction and removal of temporary equipment crossovers, including restoring pre-existing crossovers.

(i) Provide and maintaining work zone lighting and work area lighting.

616.12.1 Lump Sum Temporary Traffic Control. Traffic control items grouped together in the contract or plans for lump sum payment shall be paid incrementally per Sec 616.12.1.1. Alternately, upon request from the contractor, the engineer will consider a modified payment schedule that more accurately reflects completion of traffic control work. No payment will be made for any additional signs or devices needed except for changes in the traffic control plan directed by the engineer. Additional items directed by the engineer will be paid for in accordance with Sec 109.4. No adjustment to the price will be made for overruns or underruns of other work or for added work that is completed within existing work zones.

616.12.1.1 Partial payments. For purposes of determining partial payments, the original contract amount will be the total dollar value of all original contract line items less the price for Lump Sum Temporary Traffic Control (LSTTC). If the contract includes multiple projects, this determination will be made for each project. Partial payments will be made as follows:

(a) The first payment will be made when five percent of the original contract amount is earned. The payment will be 50 percent of the price for LSTTC, or five percent of the original contract amount, whichever is less.

(b) The second payment will be made when 50 percent of the original contract amount is earned. The payment will be 25 percent of the price for LSTTC, or 2.5 percent of the original contract amount, whichever is less.

(c) The third payment will be made when 75 percent of the original contract amount is earned. The payment will be 20 percent of the price for LSTTC, or two percent of the original contract amount, whichever is less.

(d) Payment for the remaining balance due for LSTTC will be made when the contract has been accepted for maintenance or earlier as approved by the engineer.

616.12.1.2 Temporary traffic control will be paid for at the contract lump sum price for Item:

Item No.	Unit	Description
616-99.01	Lump Sum	Misc. Lump Sum Temporary Traffic Control

O. 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 Culvert Replacement

(a) All culvert replacement work withing the project limits
(b) All culvert extension work within the project limits

2.2 Pavement Marking

(a) All permanent and temporary pavement marking work
(b) Removal of temporary tabs

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.

P. Roadway Closures During Winter

Due to snow removal operations and safety to the public, long term closure of Route 47 shall not be allowed between December 1st and April 1st. Short term closures to replace crossroad culverts or other similar work may be allowed as approved by the engineer.

Q. Group A Culvert Pipe Restrictions

The following Group A culvert pipe types shall be excluded for installation under Route 47 and Route AA: Vitrified Clay, Aluminum Coated Steel, Polymer Coated Steel, Aluminum Alloy, Triple Wall Polypropylene, Double Wall Polypropylene, High Density Polyethylene, Steel Reinforced Polyethylene and Polyvinyl Chloride.

R. Reinforced Concrete Elliptical Pipe

1.0 Description. This work shall consist of furnishing horizontal concrete elliptical pipe culvert, laid upon a bed, and backfilled as specified on the plans or as directed by the engineer. This work shall be in accordance with Sec 726 and accompanying provisions except as modified herein.

2.0 Material. All material, unless specified otherwise in this specification, shall be in accordance with Division 1000, Material Details, and specifically as follows:

Item	Section
Reinforced Concrete Elliptical Pipe Culvert	1034

3.0 Construction Requirements. The construction requirements shall conform to Sec 724.2 and 726.3.

4.0 Method of Measurement. The quantities will be paid for in accordance with Section 724.4.

5.0 Basis of Payment. Section 724.5 is supplemented by the following:

The cost of all materials, labor and equipment necessary for the complete in place installation shall be included in the unit bid price for:

Item 726-99.03, Misc. 38 In. x 24 In. Elliptical Culvert, per LF

S. Precast Concrete Elliptical Flared End Section

1.0 Description. This work shall consist of furnishing and installing horizontal precast concrete elliptical flared end sections of the size and shape shown on the plans or as specified by the engineer. This work shall be in accordance with Sec 732 and accompanying provisions except as modified herein.

2.0 Material. The materials shall be in accordance with Sec 732.2.

3.0 Construction Requirements. The construction requirements shall conform to Sec 732.3.

4.0 Method of Measurement. The quantities will be paid for in accordance with Section 732.4.

5.0 Basis of Payment. Section 732.5 is supplemented by the following:

The cost of all materials, labor and equipment necessary for the complete in place installation shall be included in the unit bid price for:

Item 732-99.02, Misc. 38 In. x 24 In. Elliptical Safety Slope End Section, per each

T. Box Culvert Extension – Size Specified

1.0 Description. This work shall consist of removing the existing headwall and constructing precast concrete box culvert extension and end section with wing walls, as shown in the plans, applicable standard drawings, according to Sections 703, 733 and 1049 of the Standard Specifications, and as directed by the Engineer.

2.0 Construction Requirements. All precast sections shall meet the requirements of Section 733 of the Standard Specifications, and the layout and dimensions shall follow MoDOT Standard Details 703.11J and 703.14J and as shown on the plans. The contractor shall verify the size of the existing culverts before ordering materials. The contractor shall have the option to construct the extensions as cast-in-place concrete box culverts. If a cast-in-place option is chosen, the contractor shall provide sealed shop drawings for the culvert design.

3.0 Method of Measurement. The precast concrete box culvert extension, complete in place including end sections, will be measured to the nearest foot along the geometrical center of the culvert floor.

4.0 Basis of Payment. This work will be paid for at the contract unit price as shown below, which price shall include removals, furnishing and installing the required bedding material, box culvert, saw cutting, headwall removal, backfill, and connections, and no additional compensation will be allowed.

Item 733-99.03, Misc. 4X2.5 Precast Concrete box Culvert Extension, per lineal foot
Item 733-99.03, Misc. 4X4.2 Precast Concrete box Culvert Extension, per lineal foot

U. Precast Concrete Box Culvert

1.0 Description. This work shall consist of constructing the precast concrete box culverts, as shown in the plans, applicable standard drawings, according to Sections 733 and 1049 of the Standard Specifications, and as directed by the Engineer.

2.0 Method of Measurement. The precast concrete box culvert of the size specified, complete in place including end sections, will be measured to the nearest foot along the geometrical center of the culvert floor.

3.0 Basis of Payment. The precast concrete box culvert of the size specified, including end sections, will be paid for at the contract unit price for each of the pay items included in the contract. No direct payment will be made for furnishing, placing or compacting the Type 1 granular bedding material. Replacement of unsuitable material below the 6-inch bedding will be paid for in accordance with Sec 206.

V. Detention Outflow Structure

1.0 Description. This work shall consist of furnishing and installing the precast outflow structure for the detention basin and related work as shown on the plans.

2.0 Material Requirements. All material requirements shall be in accordance with Sec 206 and 731, except as herein described.

2.1 Precast Drop Inlet. The contractor shall furnish and install a Type E drop inlet and slab top as shown on the plans. The inlet requires additional depth below flowline for stability which is included in the pay depth. It also requires additional reinforcing steel for the V-notch as detailed on the plans.

2.2 Invert Concrete. The contractor shall use additional invert concrete to fill the bottom of the inlet to the elevation of the flowline (approximately 18 inches).

2.3 Shop Drawing Review. The contractor shall submit shop drawing of drop inlet and reinforcement details to be reviewed and approved by the engineer.

3.0 Construction Requirements. All construction requirements shall be in accordance with Sec 206 and 731.

4.0 Method of Measurement. No final measurements shall be made.

5.0 Basis of Payment. Payment for all costs associated with the compliance with the provisions above shall be considered included in the contract unit prices below:

Item No.	Item Description	Unit
731-10.53	Precast Concrete Drop Inlet 5 Ft x 3 Ft	LF
206-30.00	Class 3 Excavation	CY

5.1 No direct pay shall be made for furnishing and installing bedding or backfill material for structure installation.

5.2 No direct pay shall be made for the additional reinforcement steel in the structure detailed on the plans compared to the reinforcement steel detailed in the standard plans.

5.3 No direction pay shall be made for the additional invert concrete.

W. Water Main Shutdown

1.0 Description. The Contractor shall coordinate with the Engineer for water main shutdowns and connections to existing water mains and service lines. Three working days' notice shall be provided in advance of any shutdown. Shutdowns shall be limited to no more than 8 consecutive hours with written approval from the Engineer. Water main shutdowns and connections shall be anticipated outside of normal working hours.

2.0 Basis of Payment. Water Main Shutdowns will not be measured for payment. There will be no direct payment for Water Main Shutdowns. Overtime pay or compensation for working outside of normal working hours due to water main shutdowns will be considered incidental to the project.

X. Polyvinyl Chloride (PVC) Pipe – Various Sizes (Water Supply)

1.0 Description. This item shall consist of furnishing and installing Polyvinyl Chloride (PVC) pressure pipe and fabricated fittings of the sizes shown on the plans or as directed by the engineer.

2.0 Material. Pipe and fittings shall meet AWWA Standard C900 and be in accordance with Sec 603. Pipe shall be DR14 with outside diameter dimensions of cast iron pipe. The PVC compounds shall be treated or certified suitable for potable water products by the National Sanitation Foundation (NSF) Testing Laboratory (NSF Standard No. 61).

2.1 The Engineer reserves the right to inspect all material and to reject all defective material shipped to the job site or stored on the site. Failure of the Engineer to detect damaged material shall not relieve the Contractor from his total responsibility for the completed work if it leaks or breaks after installation.

3.0 Construction Requirements. Lay and maintain all pipe to the required lines and depths. Install fittings, valves and hydrants in strict accordance with the Specifications at the required locations with joints centered, spigots home, and all valve and hydrant stems plumb. Do not deviate from the required alignment, depth or grade without the written consent of the Engineer.

3.1 Thoroughly clean the pipes and fittings before they are installed. Keep these materials clean until the acceptance of the completed work. Lay pipe with the bell ends facing in the direction of laying, unless otherwise shown on the Drawings, or directed by the Engineer. Exercise care to ensure that each length abuts the next in such a manner that no shoulder or unevenness of any kind occurs in the pipe line. Pressure testing of PVC SDR 14 pipe shall not exceed 200 psi.

3.2 Remove all existing pipe, fittings, valves, pipe supports, blocking, and all other items necessary to provide space for making connections to existing pipe and installing all piping required under this Contract.

4.0 Method of Measurement. Measurement for the bid item "WATER X" C900 PVC PIPE" of the size specified shall be in accordance with Sec 603. This item shall include all plugs, caps, dewatering, excavation, bedding, backfill, thrust blocking (reaction backing), cross (straddle) blocking, mechanical restraints, restrained joint pipe, tracer wire, RFID markers, encasement, hydrostatic testing, flushing and disinfection necessary to complete a finished product. Full-depth granular backfill is to be used where water mains are constructed under pavement areas.

5.0 Basis of Payment. Accepted water line will be paid for at the contract unit price per linear foot, and shall include all labor, equipment, time and any other incidental items required for the complete installation, whether specifically mentioned or not. No direct payment will be made for excavation or backfill. No direct payment will be made for fittings regardless of the type of fittings used. Accessories required for fittings and restraint will be considered part of the fitting. In relocating service connections 2 inches inside diameter or less, no direct payment will be made for the pipe or fitting. No direct payment will be made for incidental construction items including, but not limited, to thrust blocking (reaction backing), plugging and sealing of abandoned water mains, and for disinfecting of water lines.

Y. Gate Valve

1.0 Description. This item, of the size specified, shall consist of furnishing all labor, equipment, tools, materials, and the performance of all work incidental to the construction and installation of gate valves as required in accordance with the plans and details.

2.0 Material. All gate valves, 2 inches through 12 inches NPS, shall be iron body, resilient-sealed, nut-operated, non-rising stem gate valves suitable for buried service. The valve interior and exterior shall be epoxy coated at the factory by the valve manufacturer in accordance with AWWA Standard C550 (6-8 mil average, 4 mil minimum). The valves shall be designed for a minimum differential pressure of 250 psi and a minimum internal test pressure of 500 psi unless otherwise noted on the plans. Valves shall be designed to operate in the vertical position.

2.1 Valves shall comply fully with AWWA Standard C509 or C515. Valve stems shall be made of a low zinc alloy in accordance with AWWA C509 or C515. Gate valves submittals shall include the ASTM designation for the low zinc stem material standard. Stem seals shall be double O-ring stem seals. Square operating nuts conforming to AWWA Standard C509 or C515 shall be used. All valve materials shall meet the requirements of NSF 61.

3.0 Construction Requirements. All valve box covers shall be adjusted to be flush with proposed grade.

4.0 Method of Measurement. Measurement for the bid item "WATER X" GATE VALVE", of the size specified, shall be based on each Gate Valve constructed. This item shall include all valve boxes, valve box covers, bedding, backfill, thrust blocking, mechanical restraints, tracer wire, RFID markers, and other appurtenant items as necessary to complete a finished product.

5.0 Basis of Payment. Payment shall be made in accordance with the contract unit price per each, and shall include the labor, equipment, time and other appurtenant items as required for the complete installation, whether specifically mentioned or not.

Z. Fire Hydrant Assembly

1.0 Description. This item shall consist of furnishing all labor, material, tools, equipment, and the performance of all work incidental to the construction and installation of a fire hydrant as shown on the plans and details or as directed by the Engineer and in compliance with local regulations.

2.0 Material. Fire hydrants shall be ductile iron and conform to the requirements of AWWA C502, traffic-model break-away type fire hydrants. The operating top nut shall be a 1-1/2" pentagon and the stem shall have a minimum of two O- ring stem seals. The hydrant shall be break-away traffic flange, 5-1/4" valve opening, 6" mechanical joint pipe connection. The hydrant interior and exterior shall be epoxy coated at the factory by the hydrant manufacturer in accordance with AWWA Standard C550 (6-8 mil average, 4 mil minimum). All hydrant materials shall meet the requirements of NSF 61. The number and sizes of hose nozzle outlets is dependent on the local regulation. The Contractor shall contact the local water district and obtain written fire hydrant mechanical details from the water district prior to ordering any fire hydrants in accordance with the drawings.

3.0 Construction Requirements. All hydrants to be installed/adjusted straight (plumb) and at the proper finished grade per manufacturer's specifications. Set hydrants with nozzles at least eighteen inches above the finished grade as shown on the plans. Set the break flange at least two but no more than six inches above finished grade, or as directed by the Engineer. Paint all of the hydrant that is above the bury line in accordance with the local operations standards. Connect each hydrant to the main with a six-inch branch connection controlled by an independent six-inch gate valve, unless otherwise shown on the plans. All hydrant assemblies must be restrained from the hydrant back to the main. All valves shall be left open. Valve boxes shall be adjusted to the proper finished grade. Provide reaction or thrust blocking at the base of each hydrant that does not obstruct the drainage outlet of the hydrant.

4.0 Method of Measurement. Measurement for the bid item "WATER FIRE HYDRANT ASSEMBLY" shall be based on each Fire Hydrant Assembly constructed. This item shall include fire hydrant, all thrust blocking, cross (straddle) blocking, mechanical restraints, ductile iron tee, gate valve, valve box, valve box lid, ductile iron pipe, fittings, bedding, backfill, tracer wire, RFID markers, and other appurtenant items as necessary to complete a finished product.

5.0 Basis of Payment. Payment shall be made in accordance with the contract unit price per each, and shall include the labor, equipment, time and other appurtenant items as required for the complete installation, whether specifically mentioned or not. Said price shall include all costs necessary to complete the work including, but not limited to, all excavation (earth, rock, shale), dewatering, bedding, polyethylene encasement, placing, pipe to fitting connections, restraint measures, flushing, disinfection, pressure testing, backfilling, compacting, grading and removal of excess or unsuitable material, as required by the drawings and specifications.

AA. Blowoff Assembly

1.0 Description. This item shall consist of furnishing all labor, material, tools, equipment, and the performance of all work incidental to the construction and installation of a blowoff assembly as shown on the plans and details or as directed by the Engineer.

2.0 Material. Blow off assembly for underground applications shall be designed to fit within a standard valve box. In areas prone to cold weather they shall be self draining and non-freezing. All working parts shall be serviceable from above with no digging required. They shall be operated such that the device goes from full open to full close in a ¼ turn clockwise turn. Approved types of flushing hydrants are Tru-Flo Model TF 500 by the Kupferle Foundry or equal. Blow off Flushing Hydrant Assembly shall be installed on 6" and smaller dead end main installations as shown on the plans or as directed by the Engineer.

3.0 Construction Requirements. See detail drawings showing installation details for air blow-off assemblies.

4.0 Method of Measurement. Measurement for the bid item "WATER BLOWOFF ASSEMBLY" shall be based on each Blowoff Assembly constructed. This item shall include blowoff/flushing hydrant, all thrust blocking, cross (straddle) blocking, mechanical restraints, curb valve, valve box, valve box lid, brass fittings, bedding, backfill, tracer wire, RFID markers, and other appurtenant items as necessary to complete a finished product.

5.0 Basis of Payment. Payment shall be made in accordance with the contract unit price per each, and shall include the labor, equipment, time and other appurtenant items as required for the complete installation, whether specifically mentioned or not.

BB. Tapping Sleeve and Valve

1.0 Description. This item shall consist of furnishing all labor, material, tools, equipment, and the performance of all work incidental to the construction and installation of tapping sleeves, tapping (gate) valves, and tapping saddles, of the size specified, as shown on the project plans and details.

2.0 Material. Tapping sleeves shall be ductile iron dual compression type unless otherwise specified on the drawings. Tapping sleeves shall meet the requirements of ANSI/AWWA C110. Tapping sleeves shall be made in two halves which can be assembled and bolted around the parent pipe. Tapping sleeves, gaskets, seals, and outlets shall meet the requirements of NSF 61. Flange outlets shall conform to the requirements of ANSI/AWWA C110 and ANSI/AWWA C111 with flange gaskets that meet the requirements of ANSI/AWWA C207 Class E Mechanical Joint outlets and gaskets shall conform to the requirements of ANSI/AWWA C110 and ANSI/AWWA C111.

2.1 All tapping sleeves, saddles and valves shall be designed for a normal working pressure of at least 250 psi for 12-inch and smaller. The valves shall be designed for a minimum differential pressure of 250 psi and a minimum internal test pressure of 500 psi unless otherwise noted on the plans. Tapping sleeves and tapping saddles and all supplied appurtenances of the tapping sleeves and tapping saddles shall be designed for an internal test pressure of 300 psi.

2.2 Fabricated stainless steel tapping sleeves, outlets, seals, and gaskets shall meet the requirements of ANSI/AWWA C223 and be NSF 61 approved. Flange outlets and flange gaskets shall meet the requirements of ANSI/AWWA C207 Class E. Flanged outlets shall be recessed for tapping valve meeting the requirements of MSS-SP60. Mechanical Joint outlets shall meet the requirements of ANSI/AWWA C207 with mechanical joint dimensions and gaskets meeting the

requirements of ANSI/AWWA C111 and be suitable for use with standard mechanical joint by mechanical joint resilient wedge gate valves per ANSI/AWWA C509.

2.3 Tapping saddles shall consist of ductile iron outlet castings meeting the requirements of ANSI/AWWA C110 furnished by the casting manufacture with straps, gaskets, and bolts to provide a complete installation. The outlet castings shall be fabricated with alloy steel straps that attach the ductile iron outlet to the parent pipe capable to support the weight of the tapping valve during installation. Gaskets, seals, and outlets shall be NSF 61 approved. Castings shall be designed to meet or exceed a normal operating pressure of 250 psi. Castings shall be designed with an O-ring gasket that seals to the parent pipe meeting or exceeding 250psi normal operating pressure and meets the material requirements for sleeve gaskets of ANSI/AWWA C223. Flange gaskets shall meet the requirements of ANSI/AWWA C207 Class E gaskets. Flange outlets shall conform to the requirements of ANSI/AWWA C110 and ANSI/AWWA C111 with flanged outlets recessed for use with tapping valves and tapping equipment meeting MSS-SP60. Mechanical Joint outlets and gaskets shall conform to the Mechanical Joint requirements of ANSI/AWWA C110 and ANSI/AWWA C111 and be suitable for use with standard mechanical joint by mechanical joint resilient wedge gate valves per ANSI/AWWA C509.

2.4 Bolts, nuts and washers shall meet or exceed the bolt requirements of ANSI/AWWA C223. Fabricated stainless steel tapping sleeves shall be furnished with stainless steel bolts, nuts, and washers that meet or exceed the stainless steel bolt requirements of ANSI/AWWA C223. Ductile iron tapping sleeves and ductile iron tapping saddles along with fabricated steel tapping sleeves shall each be furnished with bolts, nuts and washers that meet or exceed the steel bolt requirements of ANSI/AWWA C223. The steel bolts, nuts, and washers shall be furnished by the manufacturer with epoxy coatings.

3.0 Construction Requirements. Install the tapping sleeves, tapping saddles, and tapping valves in accordance with the manufacturer's instructions. The tapping procedure is to be in accordance with the tapping machine manufacturer's instructions. Verify the type of existing pipe and the outside diameter of the parent pipe on which the tapping saddle is to be installed. All valve boxes shall be adjusted to be flush with proposed grade.

4.0 Preliminary Testing. Perform a hydrostatic test of the tapping sleeve or saddle and valve assembly after installation of the tapping sleeve or saddle and valve, but prior to making the tap. The test shall be made with the valve open using a tapped mechanical joint cap. No leakage is acceptable. The test pressure shall be maintained for a minimum of 15 minutes.

5.0 Basis of Payment. Measurement for the bid item "WATER TAPPING SLEEVE AND VALVE", of the size specified, shall be based on each tap constructed. This item shall include all tapping valves, sleeves, hardware, thrust blocking, mechanical restraints, tracer wire, RFID markers, valve box, valve box lid, and other appurtenant items as necessary to complete a finished product.

6.0 Basis of Payment. Payment shall be made in accordance with the contract unit price per each, and shall include the labor, equipment, time and other appurtenant items as required for the complete installation, whether specifically mentioned or not.

CC. <u>Service Line Connections</u>

1.0 Description. This item shall consist of furnishing all labor, tools and equipment for the relocation and reconnection of the existing service in a manner to provide the equivalent service

that the domestic service is currently providing, as shown on the plans or as directed by the Engineer.

2.0 Material. All products shall meet the requirements of NSF 61. The materials for potable water facilities including solder joints, copper, brass and all other types of material shall meet current Federal, State, and Municipal regulations.

2.1 Copper pipe shall be Type L or Type K, as specified, meeting the requirements of ASTM Standard B88. The pipe size (3/4", 1", 1-1/2", or 2") and type are to be determined by the Engineer. Type K is normally required in corrosive environments where polyethylene is not allowed. Miscellaneous service line fittings such as couplings, adapters, saddles, bends, plugs, service line electrical insulators, etc. shall conform to AWWA Standard C800

3.0 Construction Requirements. Install service connections in accordance with AWWA Standard C605 and the manufacturer's recommendations using the following methods:

- Tapping is only permitted through the use of service clamps or saddles.
- Using injection molded couplings with threaded outlets.
- Direct tapping of 1 inch and smaller service connections is not permitted. Use service saddles only for AWWA Standard C900 pipe, for nominal pipe sizes 4 inch through 48 inch. Corporation stops shall be threaded and conform to AWWA Standard C800.

3.1 Install service line between the tap connection and the curb stop (if applicable) location making only gradual changes in grade or alignment as required. Sharp bends (greater than 15 degrees) in any direction are not allowed unless approved by the Engineer. Install all services straight and at right angles to the main. If this cannot be accomplished, provide the Owner with accurate as-built dimensions to the tee.

4.0 Method of Measurement. Measurement for the bid item "WATER SERVICE LINE CONNECTION", of the size specified, shall be based on each service line connected. This item shall include all items as necessary to complete a finished product.

5.0 Basis of Payment. Payment shall be made in accordance with the contract unit price per each, and shall include the labor, equipment, time and other appurtenant items as required for the complete installation, whether specifically mentioned or not.

DD. <u>Line Stop</u>

1.0 Description. This item shall consist of furnishing all labor, equipment, tools, materials, and the performance of all work incidental to the construction and installation of line stops as required, shown on the plans, or as directed by the Engineer. This item shall include cutting and capping existing pipe and all associated excavation and backfill.

2.0 Material. Valve materials shall meet AWWA Standards C509. The carbon steel or cast iron line stop fittings such as the mechanical tapping sleeves, blind flanges and completion plugs shall be shop primed and finish coated in the field with an approved for potable water liquid epoxy coating. The interior and exterior surfaces shall be coated with coatings applied in accordance with the manufacturer's recommendations and AWWA Standard C210. All bolts, nuts, washers or connection devices used on the line stop fittings shall be corrosion resistant 316 stainless steel.

2.1 Line stop fittings shall be a two-part saddle weldment fabricated from ASTM A285 Grade C steel with a minimum wall thickness of 3/8 inch. The outlet shall be sealed with blind flanges. All mild steel parts shall be stressed relieved after welding and coated with a fusion-bonded epoxy. Nozzle flanges shall be machined from 150 lb forged steel flanges, ASTM A181 or A105. The design of the nozzle flange shall be such that it will receive, securely retain, and pressure seal a completion plug installed under pressure through the line stop valve. After welding and stress relief, the nozzle and flange shall be bored to provide a pressure-tight seal with the O-Ring contained in a groove in the completion plug. A single ¾" NPT pipe coupling shall be welded to each nozzle for pressure test purposes.

2.2 The upper saddle plate shall be sealed to the outside of the pipe by means of a resilient gasket cemented inside a groove in the nozzle half of the fitting. The gasket shall be located adjacent to and concentric with the bore of the nozzle. The fitting halves shall be drawn together by twelve ¾" diameter Type 304 stainless steel bolts, nuts and washers. The plug shall be made from ductile iron. A blind flange shall be fabricated from ASTM A-36 mild steel plate and coated with fusion-bonded epoxy. Type 304 stainless bolts and nuts shall be provided to secure the blind flange to the nozzle flange after the completion plug has been installed.

3.0 Construction Requirements. Excavate, dewater (if necessary), and expose the water main before using a power wire brush and grinding the exterior of the main to remove any debris, corrosion deposits, or other surface irregularities that might interfere with proper seating and sealing of each line stop fitting against each main. Fit saddle assemblies to main, thoroughly checking for proper fit to main.

3.1 The design of the completion plug shall be such that it will carry an O-Ring to pressure seal against the interior of the nozzle and be mechanically held in place in the nozzle flange. The plug shall be capable of later removal, under pressure, in the event that a line stop may have to be reinstalled. Pressure taps shall be provided downstream from line stop on the water main. Installed line stopping fittings shall be leak tested before any pipe cutting is initiated. The leak test pressure shall be determined by the line stopping equipment installation subcontractor. Any leaks shall be repaired before tapping the pressurized pipe.

4.0 Method of Measurement. Measurement for the bid item "WATER X" LINE STOP", of the size specified, shall be based on each line stop constructed. This item shall include furnishing, installation, and removal of all temporary piping, valves, couplings, sleeves, bolts, gaskets, caps, supports, thrust blocks, concrete encasement, and all necessary appurtenances required to complete the line stopping activities associated with this project.

5.0 Basis of Payment. Payment shall be made in accordance with the contract unit price per each, and shall include the labor, material, equipment, incidentals and other appurtenant items as required for the complete installation of the line stop and cutting and capping of the water main, whether specifically mentioned or not.

EE. <u>Water Meter</u>

1.0 Description. This item shall consist of furnishing all labor, equipment, tools, materials, and the performance of all work incidental to the construction and installation of water meters as required, shown on the plans, or as directed by the Engineer. This item shall include removing and relocating the existing water meter, new meter enclosure, setter, frame and lid, and all associated excavation and backfill.

2.0 Material. Meter boxes/pits shall be a high quality, heavy duty, crush resistant plastic pipe. They must have a dual-wall construction with a smooth, white interior, a ribbed/corrugated exterior and shall be notched on the bottom sides of the pit. Meter box frames and lids shall be cast iron and have a non-recessed lid opening. The meter box frames must be compatible with the meter box. Meter setters/yokes shall be manufactured and tested in accordance with applicable section of AWWA C800 and maintain electrical ground continuity (bonded).

3.0 Construction Requirements. Install meter setter with the shut-off valve in the vertical position and the meter box centered over the valve. Install meter boxes plum and adjusted to be flush with finished grade.

4.0 Method of Measurement. Measurement for the bid item "WATER METER" shall be based on each water meter enclosure, setter, frame and lid installed, and the relocation of existing water meters. This item shall include furnishing (unless provided by the City), installation, and all necessary appurtenances required to complete the water meter removal and relocation associated with this project.

5.0 Basis of Payment. Payment shall be made in accordance with the contract unit price per each, and shall include the labor, material, equipment, incidentals and other appurtenant items as required for the complete installation of the water meter, whether specifically mentioned or not.

FF. Sampling Pit

1.0 Description. This item shall consist of furnishing all labor, material, tools, equipment, and the performance of all work incidental to the construction and installation of a sampling pit as shown on the plans or as directed by the Engineer.

2.0 Material. Taps on PVC mains shall utilize a bronze tapping saddle with stainless steel straps. The sampling station must be constructed of brass, copper, stainless steel or plastic or a combination of these materials. The unit shall consist of a dual check backflow preventer and a locking main sampling valve. The unit shall be of dimensions as to accommodate installation in a standard 5/8" x 3/4" meter box or meter housing. The unit shall be supplied with a plastic mounting stake which may be driven into the ground and provides a stable mounting cradle for the unit and holds the unit in a constant upright position. The operation shall consist of a positive lock valve, which is activated and deactivated by a sampling rod. The sampling rod shall be constructed of stainless steel, brass or a combination with a PVC sleeve for deactivating the main sampling valve. The rod shall have a valve for regulating the flow of water. The main sample valve must be of the female design while the rod end must be of the male design. The valve shall be protected by a threaded cap with compression type sealing gasket and a built-in key way for operation with a standard meter key.

3.0 Construction Requirements. All sample taps shall be ¾" in size and shall be made with a manual tapping machine and a shell-type cutting bit designed for PVC. Hand-held drills shall not be used. This valve shall be positioned in a manner so as to allow a steady flow of water with no aeration. The rod must swivel 360 degrees to allow for any direction discharge. Sampling station activation shall be accomplished through a "push on – push off" motion.

4.0 Method of Measurement. Measurement for the bid item "WATER SAMPLING PIT" shall be based on each Sampling Pit constructed. This item shall include corporation stop, pipe, meter

box, meter box lid, fittings, bedding, backfill, tracer wire, RFID markers, and other appurtenant items as necessary to complete a finished product.

5.0 Basis of Payment. Payment shall be made in accordance with the contract unit price per each, and shall include the labor, equipment, time and other appurtenant items as required for the complete installation, whether specifically mentioned or not.

GG. Liquidated Damages / Liquidated Savings Specified Project Completion JSP-03-05B

1.0 Description. If construction of JNE0003, is not completed by **July 1, 2028**, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public.

2.0 Liquidated Damages Specified for Failure to Complete Work on Time. These costs are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of **$10,000** per **day** for each day, or partial day thereof, that all contract work shall be completed as directed in the contract and on the plans and open to traffic, in excess of the limitation as specified elsewhere in the special provision. It will be the responsibility of the engineer to determine the quantity of excess closure time.

2.1 The said liquidated damages specified will be assessed in addition to any other liquidated damages charged under the Missouri Standard Specifications for Highway Construction, as indicated elsewhere in this contract.

2.2 This deduction will continue until such time as the necessary work is completed and traffic is restored.

3.0 Liquidated Savings Specified for Early Completion. The contractor may receive an incentive payment from the Commission, in addition to all other sums earned under the contract, if the contractor completes all contract work under JNE0003. To qualify for this incentive payment, all work shall be completed as directed in the contract and on the plans and open to traffic. An incentive payment of **$10,000** will be paid per **day** for each full day that the work described above is completed prior to July 1, 2028. The maximum amount paid as liquidated savings will not exceed **$450,000**.

3.1 In the event of an excusable delay, including differing site conditions, an extension of the contract completion time will not extend the time specified for determining any liquidated savings or incentive, except that, in its discretion, the Commission may extend the time specified should the delay be directly caused by the Commission. Further, in the event of an excusable delay, if the contractor completes the work providing for liquidated savings or incentive on or before the milestone or other date, that shall not constitute a basis to claim acceleration costs in addition to the liquidated savings or incentive that may be earned.

3.2 The incentive payment described above is made, not as a bonus or gift, but as stipulated compensation in full for reduced risks, delay and inconvenience experienced by the traveling public, and for other reduced costs to the Commission and public resulting from early completion.

HH. Liquidated Damages Specified - Phase Completion JSP-93-28A

1.0 Description. If any Phase started in a calendar year is not complete and open to traffic on or before **December 1**, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to, increased construction administration cost, potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public. 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 **$15,000** per **day** for each day, or partial day thereof, that all work associated with any Phase started in the calendar year, is not complete and open to traffic in excess of the limitation as specified elsewhere in this special provision. It shall be the responsibility of the engineer to determine the quantity of excess closure time.

1.1 The said liquidated damages specified will be assessed regardless of whether it would otherwise be charged as liquidated damages under the Missouri Standard Specification for Highway Construction, as amended elsewhere in this contract.

II. Liquidated Damages / Liquidated Savings Specified Crossroad Culverts

1.0 Description. The contractor will be allowed to close Route 47 to remove and replace crossroad culverts. If construction to remove and replace crossroad culverts, is not completed by 4 days or 6 days as shown in the table below, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public.

2.0 Liquidated Damages Specified for Failure to Complete Work on Time. These costs are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of **$6,000** per **day** for each day, or partial day thereof, that all work to remove and replace the crossroad culvert is not completed and Route 47 open to traffic, in excess of the limitation as specified elsewhere in the special provision. It will be the responsibility of the engineer to determine the quantity of excess closure time.

2.1 The said liquidated damages specified will be assessed in addition to any other liquidated damages charged under the Missouri Standard Specifications for Highway Construction, as indicated elsewhere in this contract.

2.2 This deduction will continue until such time as the necessary work is completed and traffic is restored.

3.0 Liquidated Savings Specified for Early Completion. The contractor may receive an incentive payment from the Commission, in addition to all other sums earned under the contract, if the contractor completes the removal and replacement of crossroad culverts. To qualify for this incentive payment, all work to remove and replace the crossroad culvert must be completed and open to traffic. An incentive payment of **$6,000** will be paid per **day** for each full day that the work described above is completed prior to 4 days or 6 days as shown in the table below. The maximum amount paid as liquidated savings will not exceed two days per location or **$156,000**.

3.1 In the event of an excusable delay, including differing site conditions, an extension of the contract completion time will not extend the time specified for determining any liquidated savings

or incentive, except that, in its discretion, the Commission may extend the time specified should the delay be directly caused by the Commission. Further, in the event of an excusable delay, if the contractor completes the work providing for liquidated savings or incentive on or before the milestone or other date, that shall not constitute a basis to claim acceleration costs in addition to the liquidated savings or incentive that may be earned.

3.2 The incentive payment described above is made, not as a bonus or gift, but as stipulated compensation in full for reduced risks, delay and inconvenience experienced by the traveling public, and for other reduced costs to the Commission and public resulting from early completion.

STATION	DAYS	SIZE
2000+29.70	4	38" x 24" ELLIPTICAL PIPE GROUP A PIPE
2013+88.00	4	30" GROUP A PIPE
2030+35.86	6	5' x 3' PRECAST BOX CULVERT
2056+74.97	6	6' X 4' PRECAST BOX CULVERT
2102+53.40	6	5' x 3' PRECAST BOX CULVERT
2118+82.14	4	38" x 24" ELLIPTICAL PIPE GROUP A PIPE
2194+65.21	4	30" GROUP A PIPE
2209+00.06	6	6' X 4' PRECAST BOX CULVERT
2228+71.67	6	30" GROUP A PIPE
2249+71.91	4	24" GROUP A PIPE
2273+12.08	4	4' x 3' PRECAST BOX CULVERT
2289+40.08	4	18" GROUP A PIPE
2308+66.93	4	3' x 2' PRECAST BOX CULVERT

JJ. Disposition of Sign on Parcel 32

The contractor shall remove the Hawk Point Hawks 4-H Club sign located on Parcel 32 and deliver it to the Extension office located at 880 West College Street, Troy, MO 63379. The contractor shall contact the Extension office at 636-528-4613 to coordinate delivery.

KK. Delayed Access to Parcels Pending Acquisition

1.0 Description. Acquisition is pending for the parcels listed below on the project. The contractor shall not be permitted to begin work within any designated Temporary Construction Easement, Permanent Easement, or Right of Way on any of these parcels until the Right of Way acquisition has been completed. An anticipated date of possession has been provided for each parcel to assist with scheduling purposes.

2.0 Construction Requirements. The contractor shall verify with the engineer prior to beginning work on any of the parcels listed in this provision. The contractor will not be permitted access to work on any of these parcels until notification has been given by the engineer that the parcel has been cleared from this list.

3.0 Parcels. The following is the list of the parcels where acquisition is pending.

Parcel 01 – Anticipated Acquisition Date 3/1/26
Parcel 02 – Anticipated Acquisition Date 3/1/26
Parcel 27 – Anticipated Acquisition Date 3/1/26
Parcel 37 – Anticipated Acquisition Date 5/18/26
Parcel 38 – Anticipated Acquisition Date 5/18/26
Parcel 39 – Anticipated Acquisition Date 5/18/26
Parcel 41 – Anticipated Acquisition Date 5/18/26
Parcel 60 – Anticipated Acquisition Date 3/1/26
Parcel 64 – Anticipated Acquisition Date 3/1/26
Parcel 65 – Anticipated Acquisition Date 3/1/26
Parcel 72 – Anticipated Acquisition Date 5/18/26
Parcel 76 – Anticipated Acquisition Date 3/1/26