

STATE OF MISSOURI
HIGHWAYS and TRANSPORTATION
COMMISSION

JEFFERSON CITY, MISSOURI

CONSTRUCTING OR IMPROVING
CONTRACT I.D. 140124-C04

THIS JOB SHALL BE CONSTRUCTED UNDER
FEDERAL PROJECT NUMBER(S): I-29-1(113), 635-1(25)

Job J4I2353 Route 635 PLATTE County
Job J4I2374 Route 29 PLATTE County

BIDDER CHECKLIST
FINAL CHECKLIST BEFORE SUBMITTING BID

1. Submit completed Contractor Questionnaire and/or Contractor Prequalification Questionnaire with attachments not later than seven (7) days prior to the date and hour of the bid opening. See Secs 101-103 of the Missouri Standard Specifications for Highway Construction, and Rule 7 CSR 10-15.900, "Prequalifications to Bid of Certain Contractors". Questionnaire and Contact information are provided on MoDOT's website.
2. All bids shall be submitted electronically using "Bid Express Secure Internet Bidding" at www.bidx.com. Any paper bid submitted will be considered irregular per section 102.8 of the Missouri Standard Specifications for Highway Construction.
3. Please read all items in the bidding document carefully. The EBS files from MoDOT's website may be used for the itemized bid.
4. If submitted in the name of a firm or corporation, the legal name of the firm or corporation should appear in the space designated, and be signed for by one or more persons legally qualified to execute papers in the name of said firm or corporation.
5. The bidder shall submit a Bid Guaranty meeting the requirements of Sec 102 of the Missouri Standard Specifications for Highway Construction. If submitting a project specific or annual bid bond, bidders must use the MoDOT provided bid bond forms. The project specific bond form is included in the request for bid. The project specific and annual bid bond forms are also available on MoDOT's website. Annual bid bonds shall be executed by June 15th of each year.
6. Submit the Subcontractor Disclosure Form in accordance with the bidding documents. For bids of more than \$2,000,000, each bidder shall submit with each bid a disclosure of the subcontracts that have a subcontract value that is equal or greater than twenty percent of the total project bid or subcontracts that are greater than or equal to \$2,000,000. If that information is not available at the time of bid the bidder shall submit the "Subcontractor Disclosure Form" pages with MoDOT on or before 4:00 p.m. of the third business day after the bid opening date.
7. Submit the DBE Identification Submittal in accordance with the bidding documents for Federal Projects Only.
8. Alternate Pavements; to exercise this option, separate pay items, descriptions and quantities are included in the itemized proposal for each of the two alternates. The bidder shall bid only one of the two alternates and leave the contract unit price column blank for any pay item listed for the other alternate.

- 9. When submitting a bid, your bid will still come through with "red" folders. You should make sure that it is not the Schedule of Items folder or the Signature and Identity of Bidder folder. Click on the yellow checkmark at the top and it will tell you what the errors are.

Below is a list of common mistakes made by bidders leading to non-responsive bids. Please refer to the Standard Specifications for the appropriate procedures for completing and submitting a bid.

- a) Submitting a paper bid for a project
- b) Using a different bid bond form than the one provided
- c) Improper use of the Maximum Monetary Value Award Provision
 - only used if bidding more than one project and should be in only one bid proposal
- d) Not obtaining a digital ID in advance of the letting
 - (obtaining a digital ID may take 5 business days)

All questions concerning the bid document preparation shall be directed to the Central Office - Design Division at (573) 751-2876. Project specific questions shall be directed to the project contact listed in the Job Special Provisions.

TABLE OF CONTENTS

Notice to Contractors

Proposed Work..... item (1)

Compliance With Contract Provisions..... item (2)

Period of Performance..... item (3)

Liquidated Damages..... item (4)

Acceptance of Provision for Price Adjustment for Fuel..... item (5a)

Acceptance of Provision for Asphalt Cement Price Index..... item (5b)

Max. Monetary Value of Awards Accepted this Bid Opening... item (6)

Combination Bids..... item (7)

Bid Guaranty..... item (8)

Certification for Federal Jobs..... item (9a)

Certification for State Jobs..... item (9b)

Certification for Federal State Job Combination..... item (9c)

Antidiscrimination..... item (10)

Preference to Missouri Firms in Awarding of Contracts..... item (11)

Signature and Identity of Bidder..... item (12)

Trainees..... item (13)

Bidder's Certification for DBE Program and Contract Goal.. item (14)

Itemized Bid..... item (15)

Bid Bond*

Subcontractor Disclosure Form*

DBE Identification Submittal (Applies to Federal Projects Only) *

*These forms are also available on MoDOT's Website, www.modot.org under General Information on the Bid Opening Info page of the Contractor Resources site.



NOTICE TO CONTRACTORS

Electronic bids submitted through the Bid Express website for the proposed work will be received by the Missouri Highways and Transportation Commission until 11:00 o'clock a.m. (prevailing local time) on 01-24-14.

Bid bonds will be received at the office of the Secretary to the Commission in the Missouri Department of Transportation Central Office Building, 105 West Capitol Avenue, Jefferson City, Missouri; delivered by US Mail should be mailed to: Missouri Highways and Transportation Commission, Attention: State Design Engineer/Bid Bond, P.O. Box 270, Jefferson City, MO 65102 or delivered by parcel delivery services, (such as UPS, Fed Ex, DHL, etc.) should be shipped to Missouri Highways and Transportation Commission, Attention: State Design Engineer/Bid Bond, 105 West Capitol Avenue, Jefferson City, MO 65102.

(1) PROPOSED WORK: The proposed work, hereinafter called the work, includes:

****(1): Job J4I2353 Route 635 PLATTE County. UBAWS and guardrail from Kansas State Line to Route 29 in Riverside, the total length of improvement being 3.245 miles.****(2): Job J4I2374 Route 29 PLATTE County. Bridge Rehabilitation from Route 9 to Route D near Kansas City, the total length of improvement being 9.39 miles.****(3): Job J4I3020C Route 635 PLATTE County. Drainage Improvements from Route 9 to Route 69 near Kansas City, the total length of improvement being 0.616 miles.

Combination bids will be Required on the Jobs listed above.

(2) COMPLIANCE WITH CONTRACT PROVISIONS: The bidder, having examined and being familiar with the local conditions affecting the work, and with the contract, contract documents, including the Missouri Highways and Transportation Commission's "Missouri Standard Specifications for Highway Construction, 2011," and "Missouri Standard Plans for Highway Construction, 2009", their revisions, and the request for bid, including appendices, the special provisions and plans, hereby proposes to furnish all labor, materials, equipment, services, etc., required for the performance and completion of the work. All references are to the Missouri Standard Specifications for Highway Construction, as revised, unless otherwise noted. All questions concerning the bid document preparation shall be directed to the Central Office - Design Division at (573) 751-2876.

(3) PERIOD OF PERFORMANCE: If the bid is accepted, the bidder shall continuously and dilligently prosecute the work in such order and manner as will ensure the completion of the work within the time specified in the Job Special Provisions in accordance with Sec 108.

(4) LIQUIDATED DAMAGES: The bidder agrees that, should the bidder fail to complete the work in the time specified or such additional time as may be allowed by the engineer under the contract, the amount of liquidated damages as specified in the Job Special Provisions to be recovered in accordance with Sec 108.

(5a) ACCEPTANCE OF PROVISION FOR PRICE ADJUSTMENT FOR FUEL: Bidders have the option to accept the provision for Price Adjustment for Fuel in accordance with Sec. 109.14. The bidder must select "Yes" for those items of work in which they choose to accept the provision. No price adjustments will be made, due to fuel price changes, for bidders who do not accept this provision. This provision does not apply to Seal Coat.

EXCAVATION PRODUCTION
ASPHALT PAVING PRODUCTION AND HAULING
CONCRETE PAVING PRODUCTION AND HAULING
AGGREGATE BASE HAULING

(5b) ACCEPTANCE FOR PROVISION FOR ASPHALT CEMENT PRICE INDEX, SEAL COAT PRICE INDEX, UNDERSEAL PRICE INDEX, OR UBAWS MEMBRANE PRICE INDEX: Bidders have the option to accept the provision for Asphalt Cement Price Index, Seal Coat Price Index, Underseal Price Index, and/or UBAWS Membrane Price Index in accordance with the General Provisions. The bidder must mark each box below if they choose to accept the provision. No price adjustments will be made, due to asphalt price changes, for bidders who do not accept this provision. The Asphalt Cement provision applies only to projects that have a quantity of asphalt wet ton mix pay items or converted square yard quantity over 1,000 tons, the Seal Coat provision applies only to projects that have a quantity that exceeds 50,000 square yards, the Underseal provision applies only to projects that have a quantity that exceeds 10,000 gallons, and the UBAWS Membrane provision applies only to projects that have a quantity exceeds 5,000 square yards. The above quantity limits apply to an individual project or any number of projects in the contract combination.

ASPHALT CEMENT
SEAL COAT
UNDERSEAL
UBAWS MEMBRANE

(6) MAXIMUM MONETARY VALUE OF AWARDS ACCEPTED THIS BID OPENING: Bidders have the option to specify the maximum monetary value of awards that they will accept for the total of all bids they have submitted in the bid opening, Sec 102.7.2. If the bidder is submitting only one bid, or if the bidder does not want to specify a maximum monetary value for submitted bids, this section should not be completed. If a submitted bid upon correction exceeds the indicated maximum monetary amount, the bid may be

declared non-responsive. If a bidder's submitted bids show different values for the maximum monetary value, the lowest value will govern.

MAXIMUM MONETARY VALUE OF AWARDS ACCEPTED THIS BID OPENING

(Note: this amount should be entered in only one of the bids for this bid opening)

(7) COMBINATION BIDS: (Applies only if combination bids are specified. See cover and/or notice to contractor(s).) Combination bids will be in accordance with Sec 102.12. By selecting "ALL OR NONE", the bidder desires to combine all projects in accordance with Sec 102.12.2.1.

(8) BID GUARANTY: The bidder shall submit a Bid Guaranty meeting the requirements of Section 102 of the Missouri Standard Specifications for Highway Construction. The project bid bond form is included in the bid book, and the project and annual bid bond forms are also available on MoDOT's website. Paper annual bid bonds shall be submitted to MoDOT by June 15th of each year, and electronic annual bid bonds shall be executed by June 15th of each year. The bidder shall mark the box below to identify the type of Bid Guaranty.

X Check/Paper Project Bid Bond

(9a) CERTIFICATIONS FOR FEDERAL JOBS: (Applies to Federal Projects only.) By signing and submitting this bid, the bidder makes the certifications appearing in Sec. 102.18.1 (regarding affirmative action and equal opportunity), Sec. 102.18.2 (regarding disbarment, eligibility, indictments, convictions, or civil judgments), Sec.102.18.3 (regarding anti-collusion), and Sec.102.18.4 (regarding lobbying activities). Any necessary documentation is to accompany the bid submission, as required by these sections. As provided in Sec.108.13, the Commission may terminate the contract for acts of misconduct, which includes but is not limited to fraud, dishonesty, and material misrepresentation or omission of fact within the bid submission.

(9b) CERTIFICATIONS FOR STATE JOBS: (Applies to State Projects only.) By signing and submitting this bid, the bidder makes the certifications appearing in Sec. 102.18.2 (regarding diseligibility, indictments, convictions, or civil judgments), Sec. 102.18.3 (regarding anti-collusion), and Sec. 102.18.5 (regarding Missouri Domestic Products Procurement Act). Any necessary documentation is to accompany the bid submission, as required by these sections. As provided in Sec. 108.13, the Commission may terminate the contract for acts of misconduct, which includes but is not limited to fraud, dishonesty, and material misrepresentation or omission of fact within the bid submission.

(9c) CERTIFICATIONS FOR FEDERAL STATE COMBINATION: (Applies to Federal/State Projects combinations only.) By signing and submitting this bid, the bidder makes the certifications appearing in Sec. 102.18.1 (regarding affirmative action and equal opportunity), Sec. 102.18.2 (regarding disbarment, eligibility, indictments, convictions, or civil judgments), Sec. 102.18.3 (regarding anticollusion), Sec. 102.18.4 (regarding lobbying activities), and Sec. 102.18.5 (regarding Missouri Domestic Products Procurement Act).

Any necessary documentation is to accompany the bid submission, as required by these sections. As provided in Sec. 108.13, the Commission may terminate the contract for acts of misconduct, which includes but is not limited to fraud, dishonesty, and material misrepresentation or omission of fact within the bid submission.

By selecting "No" the bidder REFUSES to make one or more certifications for the above items 9a, 9b or 9c. The bidder shall provide a statement of explanation for the refusal in the space below or by fax to the Design Division @ Fax no. 573-522-2281.

(10) ANTIDISCRIMINATION: The Commission hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, businesses owned and controlled by socially and economically disadvantaged individuals will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, religion, creed, sex, age, ancestry, or national origin in consideration for an award.

(11) PREFERENCE TO MISSOURI FIRMS IN AWARDING OF CONTRACTS: (Applies to State Projects and Federal/State Project Combinations only.) The bidder's attention is directed to Section 34.355 RSMo Supp 2000, et seq, which requires that preference be given in awarding contracts to firms, corporations, or individuals doing business as Missouri firms, corporations, or individuals, or which maintain Missouri offices or places of business, when the quality of performance promised is equal, or better, and the price quoted is the same, or less.

The law also requires that a contractor or bidder domiciled outside the state of Missouri shall be required, in order to be the successful bidder, to submit a bid which is the same percent less than the lowest bid submitted by a responsible contractor or bidder domiciled in Missouri as would be required for the Missouri domiciled contractor or bidder to succeed over the bidding contractor or bidder domiciled outside Missouri in a like contract or bid being let in his state. A contractor or bidder domiciled outside Missouri domiciliary shall also be required to submit an audited financial statement as would

be required of a Missouri domiciled contractor or bidder on a like contract or bid being let in the domiciliary state of that contractor or bidder.

For firms, corporations or individuals domiciled outside the state of Missouri, it is requested they submit the following information:

List the state of domicile

List address of all Missouri offices or places of business

I acknowledge that I have read, understand and completed the above Contract Provisions.

(12) Signature and Identity of Bidder

BY SUBMITTING THIS BID ELECTRONICALLY, I HEREBY ACKNOWLEDGE THAT ALL REQUIREMENTS INCLUDED IN THE HARD COPY REQUEST FOR BID, AND AMENDMENTS ARE A PART OF THIS BID AND CONTRACT.

*** AN ELECTRONIC PROPOSAL SUBMITTED AND SIGNED WITH A DIGITAL ID, UNDER THE PROVISION OF THE MISSOURI DEPARTMENT OF TRANSPORTATION, WILL BE CONSIDERED VALID AND BINDING. ***

THE BIDDER CERTIFIES THAT THE BIDDER AND ITS OFFICIALS, AGENTS, AND EMPLOYEES HAVE NEITHER DIRECTLY NOR INDIRECTLY ENTERED INTO ANY AGREEMENT, PARTICIPATED IN ANY COLLUSION, OR OTHERWISE TAKEN ANY ACTION IN RESTRAINT OF FREE COMPETITIVE BIDDING IN CONNECTION WITH THIS BID, AND THAT THE BIDDER INTENDS TO PERFORM THE WORK WITH ITS OWN BONAFIDE EMPLOYEES AND SUBCONTRACTORS, AND DID NOT BID FOR THE BENEFIT OF ANOTHER CONTRACTOR.

THE BIDDER CERTIFIES THAT THE BIDDER'S COMPANY KNOWINGLY EMPLOYS ONLY INDIVIDUALS WHO ARE AUTHORIZED TO WORK IN THE UNITED STATES IN ACCORDANCE WITH THE APPLICABLE FEDERAL AND STATE LAWS AND ALL PROVISIONS OF MISSOURI EXECUTIVE ORDER NO. 07-13 FOR CONTRACTS WITH THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, ACTING THROUGH THE MISSOURI DEPARTMENT OF TRANSPORTATION.

THE BIDDER ACKNOWLEDGES THAT THIS IS AN UNSWORN DECLARATION, EXECUTED UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES AND/OR FALSE DECLARATION UNDER THE LAWS OF MISSOURI, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS. THE FAILURE TO PROVIDE THIS CERTIFICATION IN THIS BID MAY MAKE THIS BID NON-RESPONSIVE, AND CAUSE IT TO BE REJECTED.

Select "No" ONLY if the bidder REFUSES to make this certification. The bidder may provide an explanation for the refusal with this submittal in the space below or by fax to the Design Division @ fax no. 573-522-2281.

USE OF ANOTHER PERSON'S DIGITAL ID IN THIS BIDDING PROCESS VIOLATES THE LAWS OF MISSOURI.

I acknowledge that I have read, understand and completed the above Electronic Bid Submission Certification.

DBE CERTIFICATION

(13) Trainees: (Applies to Federal Projects only) The number of trainee hours provided under this contract will be 1 slots at 1000 hours per slot or 1000 hours.

(14) Bidder's Certification for DBE Program and Contract Goal (Applies to Federal Projects Only.)

(A) DBE Contract Goal: By submitting this bid, the bidder certifies that the bidder is familiar with the DBE Program Requirements in the General Provisions. The contract goal for the amount of work to be awarded is 12.00% of the total federal project price. The bidder shall also complete the DBE Identification Submittal form in accordance with the General Provisions. This form is available on MoDOT's Website, www.modot.org under General Information on the Bid Opening Info page of the Contractor Resources site.

(B) DBE Participation: The bidder certifies that it will utilize DBE's as follows: % OF TOTAL FEDERAL CONTRACT

NOTE: Bidder must fill in the above box. If no percentage is specified, the bidder certifies that it agrees to and will comply with the contract goal. If a percentage below the contract goal is specified, then the bidder must submit complete documentation of good faith efforts to met the DBE contract goal, immediately below.

The DBE Identification Submittal form will be submitted via

(C) Certification of Good Faith Efforts to Obtain DBE Participation: By submitting its signed bid, the bidder certifies under penalty of perjury and other provisions of law, that the bidder took each of the following steps to try to obtain sufficient DBE participation to achieve the Commission's proposed DBE Contract Goal:

(15) ITEMIZED BID: The bidder should complete the following section in accordance with Sec 102.7. The bidder proposes to furnish all labor, materials, equipment, services, etc. required for the performance and completion of the work, as follows:

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Cts
Section 0001 ROADWAY ITEMS - J4I2353				
Alt Group				
0010	2022010 REMOVAL OF IMPROVEMENTS	LUMP	LUMP	
0020	2071000 LINEAR GRADING CLASS 1	78.900 STA		
0030	4019905 MISC. PAVEMENT FOR VEGETATION BARRIER	5,262.400 SQYD		
0040	4030132 ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125BSM MIX)	3,683.000 TONS		
0050	4071005 TACK COAT	2,760.000 GAL		
0060	4099905 MISC. SURFACE SEALING TREATMENT	31,743.000 SQYD		
0070	4133200 ULTRATHIN BONDED WEARING SURFACE, TYPE C	140,788.000 SQYD		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
0080	6061010 GUARDRAIL TYPE A	7,913.000 LF		
0090	6061011A GUARDRAIL TYPE A, 7 FT. POST, 3 FT. - 1.5 IN SPACING	15,350.000 LF		
0100	6061051 GUARDRAIL TYPE E, 7 FT. POST	75.000 LF		
0110	6061054 GUARDRAIL TYPE E, 6 FT POST, 6 FT.-3 IN. SPACING	225.000 LF		
0120	6062200A BRIDGE ANCHOR SECTION, 6.5 FT. POSTS (SAFETY BARRIER CURB) (ROADWAY AND REHABILITATION WORK ONLY)	21.000 EA		
0130	6062303 ASYMETRICAL TRANSITION SECTION, 6.5 FT. POSTS	54.000 EA		
0140	6063015 TYPE A CRASHWORTHY END TERMINAL	38.000 EA		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
0150	6066610 END ANCHOR	19.000 EA		
0160	6069902 MISC. SAFETY FENCE ANCHOR ASSEMBLY	8.000 EA		
0170	6069903 MISC. HIGH SOCKETED SAFETY FENCE, TL-3	7,894.000 LF		
0180	6093015 ASPHALT CURB (4 INCH)	1,500.000 LF		
0190	6131010 FURNISHING AND PLACING CONCRETE MATERIAL FOR FULL DEPTH PAVEMENT REPAIR	896.000 SQYD		
0200	6131012 SUBGRADE COMPACTION (6 IN. DEPTH) (PAVEMENT REPAIR)	90.000 SQYD		
0210	6131013 TYPE 1 OR 5 AGGREGATE FOR BASE (4 IN. THICK) (PAVEMENT REPAIR)	90.000 SQYD		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Cts
0220	6131014 FULL DEPTH PAVEMENT REPAIR (FOR PERIMETER AND INTERNAL SAW CUTS)	3,108.000 LF		
0230	6131015 DOWEL BAR (DRILLING, FURNISHING AND INSTALLATION) FOR FULL DEPTH PAVEMENT REPAIR	2,688.000 EA		
0240	6133018 FURNISHING AND PLACING BITUMINOUS MATERIAL FOR CLASS B PARTIAL DEPTH PAVEMENT REPAIR	370.600 TONS		
0250	6133019 REMOVAL FOR CLASS B PARTIAL DEPTH PAVEMENT REPAIR	1,298.600 SQYD		
0260	6181000 MOBILIZATION	LUMP	LUMP	
0270	6205130 TYPE 2 PREFORMED MARKING TAPE (GROOVED), LEFT/RIGHT ARROW	3.000 EA		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
0280	6205922 6 IN. WHITE WET REFLECTIVE HIGH BUILD ACRYLIC WATERBORNE PAVEMENT MARKING PAINT	18,890.000 LF		
0290	6206106 ACRYLIC WATERBORNE PAVEMENT MARKING PAINT, 6 IN., WHITE	53,419.000 LF		
0300	6206119 ACRYLIC WATERBORNE PAVEMENT MARKING PAINT, 6 IN., YELLOW	52,951.000 LF		
0310	6206122 ACRYLIC WATERBORNE PAVEMENT MARKING PAINT, 12 IN., WHITE	11,790.000 LF		
0320	6206124 ACRYLIC WATERBORNE PAVEMENT MARKING PAINT, 24 IN., WHITE	1,150.000 LF		
0330	6206125 ACRYLIC WATERBORNE PAVEMENT MARKING PAINT, 24 IN., YELLOW	409.000 LF		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
0340	6221001 COLDMILLING BITUMINOUS PAVEMENT FOR REMOVAL OF SURFACING (3 IN. THICK OR LESS)	32,931.000 SQYD		
0350	6224010 MODIFIED COLDMILLING (DEPTH TRANSITIONS)	5,351.000 SQYD		
0360	6261000A BITUMINOUS SHOULDER RUMBLE STRIP	521.200 STA		
0370	8052000A SEEDING - WARM SEASON MIXTURES	1.800 ACRE		
0380	9031010 CONCRETE FOOTINGS, EMBEDDED	3.000 CUYD		
0390	9031210 STRUCTURAL STEEL POSTS	1,440.000 LB		
0400	9031220 PIPE POSTS	250.000 LB		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
0410	9031240 BREAKAWAY ASSEMBLY	5.000 EA		
0420	9035004 TYPE SHR2L-1 SIGN	24.000 SQFT		
0430	9035011 SIGN, TYPE STR2L-3	775.000 SQFT		
	Section 0001 Total			0.00

Section 0002 Roadway Items - J4I2374

Alt Group

0440	2022010 REMOVAL OF IMPROVEMENTS	LUMP	LUMP	
0450	2129909 MISC. SHOULDER GRADING	234.000 STA		
0460	3040143 TYPE 1 AGGREGATE FOR BASE (4 IN. THICK)	22,905.000 SQYD		
0470	4011209 BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1)	3,616.000 TONS		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Cts
0480	4013000 BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)	11,411.000 TONS		
0490	4030009 ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP095BSM MIX)	1,491.000 TONS		
0500	4071005 TACK COAT	6,480.000 GAL		
0510	4133100 ULTRATHIN BONDED WEARING SURFACE, TYPE B	1,422.000 SQYD		
0520	5041000 CONCRETE APPROACH PAVEMENT	1,208.000 SQYD		
0530	6061010 GUARDRAIL TYPE A	3,938.000 LF		
0540	6061011A GUARDRAIL TYPE A, 7 FT. POST, 3 FT. - 1.5 IN SPACING	663.000 LF		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
0550	6062200A BRIDGE ANCHOR SECTION, 6.5 FT. POSTS (SAFETY BARRIER CURB) (ROADWAY AND REHABILITATION WORK ONLY)	20.000 EA		
0560	6062202A BRIDGE ANCHOR SECTION, 7.5 FT. POSTS (SAFETY BARRIER CURB) (ROADWAY AND REHABILITATION WORK ONLY)	4.000 EA		
0570	6062300A TRANSITION SECTION, 6.5 FT. POSTS	20.000 EA		
0580	6062304 ASYMETRICAL TRANSITION SECTION, 7.5 FT. POSTS	4.000 EA		
0590	6063015 TYPE A CRASHWORTHY END TERMINAL	12.000 EA		
0600	6064111 ANCHOR ASSEMBLY, GUARD CABLE 3 - STRAND TO GUARDRAIL TRANSITION	2.000 EA		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
0610	6066610 END ANCHOR	5.000 EA		
0620	6071065 (60 IN.) PEDESTRIAN FENCE (STRUCTURES)	550.000 LF		
0630	6113020 FURNISHING TYPE 2 ROCK BLANKET	55.000 CUYD		
0640	6113040 PLACING TYPE 2 ROCK BLANKET	320.000 CUYD		
0650	6122017 IMPACT ATTENUATOR (17 SAND BARRELS)	26.000 EA		
0660	6122020 REPLACEMENT SAND BARREL	47.000 EA		
0670	6122030 IMPACT ATTENUATOR (RELOCATION)	35.000 EA		
0680	6123000A TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)	2.000 EA		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Cts
0690	6161005 CONSTRUCTION SIGNS	4,068.000 SQFT		
0700	6161008 ADVANCED WARNING RAIL SYSTEM	2.000 EA		
0710	6161009 FLAG ASSEMBLY	176.000 EA		
0720	6161025 CHANNELIZER (TRIM LINE)	353.000 EA		
0730	6161030 TYPE III MOVEABLE BARRICADE	24.000 EA		
0740	6161033 DIRECTIONAL INDICATOR BARRICADE	46.000 EA		
0750	6161040 FLASHING ARROW PANEL	18.000 EA		
0760	6161098 CHANGEABLE MESSAGE SIGN, CONTRACTOR FURNISHED, CONTRACTOR RETAINED	4.000 EA		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
0770	6162010 WORK ZONE LIGHTING	LUMP	LUMP	
0780	6169902 MISC. SEQUENTIAL FLASHING WARNING LIGHT	90.000 EA		
0790	6173600D TEMPORARY TRAFFIC BARRIER, CONTRACTOR FURNISHED / RETAINED	9,025.000 LF		
0800	6175010A RELOCATING TEMPORARY TRAFFIC BARRIER	9,150.000 LF		
0810	6178003A TRAFFIC BARRIER DELINEATOR, YELLOW/YELLOW	50.000 EA		
0820	6179903 MISC. MODIFIED TYPE A BARRIER	4,510.000 LF		
0830	6179903 MISC. TEMPORARY PAVEMENT MARKING	146,525.000 LF		
0840	6181000 MOBILIZATION	LUMP	LUMP	

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
0850	6206106 ACRYLIC WATERBORNE PAVEMENT MARKING PAINT, 6 IN., WHITE	73,440.000 LF		
0860	6206119 ACRYLIC WATERBORNE PAVEMENT MARKING PAINT, 6 IN., YELLOW	44,200.000 LF		
0870	6207001 PAVEMENT MARKING REMOVAL	146,525.000 LF		
0880	6221003 COLDMILLING BITUMINOUS PAVEMENT FOR REMOVAL OF SURFACING (GREATER THAN 3 IN. THICK)	9,902.000 SQYD		
0890	6224010 MODIFIED COLDMILLING (DEPTH TRANSITIONS)	20,978.000 SQYD		
0900	6261000A BITUMINOUS SHOULDER RUMBLE STRIP	552.000 STA		
0910	8064122 TYPE 3 EROSION CONTROL BLANKET	2,382.000 SQYD		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
	Section 0002 Total			0.00

Section 0003 Signing Items - J4I2374

Alt Group

0920	9035011 SIGN, TYPE STR2L-3	124.000		
		SQFT		
	Section 0003 Total			0.00

Section 0004 BRIDGE OR RETAINING WALL Items - J4I2374

Alt Group

0930	2162500 REMOVAL OF EXISTING BRIDGE DECKS	9,400.000		
		SQFT		
0940	5031010 BRIDGE APPROACH SLAB (BRIDGE)	304.000		
		SQYD		
0950	7034212 SLAB ON STEEL	1,043.000		
		SQYD		
0960	7034215 SAFETY BARRIER CURB	199.000		
		LF		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
0970	7034219A BARRIER CURB (TYPE D)	181.000 LF		
0980	7034412 MEDIAN BARRIER CURB TRANSITION	24.000 LF		
0990	7121060 FABRICATED SIGN SUPPORT BRACKETS	LUMP	LUMP	
1000	7121159 SHEAR CONNECTORS	1,296.000 EA		
Section 0004 Total				0.00

Section 0005 Br. No. A11595 Items - J4I2374

Alt Group

1010	2162500 REMOVAL OF EXISTING BRIDGE DECKS	9,400.000 SQFT		
1020	5031010 BRIDGE APPROACH SLAB (BRIDGE)	304.000 SQYD		
1030	7034212 SLAB ON STEEL	1,043.000 SQYD		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Cts
1040	7034215 SAFETY BARRIER CURB	199.000 LF		
1050	7034219A BARRIER CURB (TYPE D)	181.000 LF		
1060	7034412 MEDIAN BARRIER CURB TRANSITION	24.000 LF		
1070	7121060 FABRICATED SIGN SUPPORT BRACKETS	LUMP	LUMP	
1080	7121159 SHEAR CONNECTORS	1,296.000 EA		
	Section 0005 Total			0.00

Section 0006 Br. No. A15954 Items - J4I2374

Alt Group

1090	2161502 REMOVAL OF CONCRETE WEARING SURFACE	10,232.000 SQFT		
1100	4031050 ALTERNATE ASPHALTIC CONCRETE WEARING SURFACE (BRIDGE)	1,137.000 SQYD		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
1110	4094010 SEAL COAT, GRADE B	1,137.000 SQYD		
1120	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	650.000 SQFT		
1130	7040106 FULL DEPTH REPAIR	100.000 SQFT		
1140	7040113 CLEAN AND EPOXY SEAL	560.000 SQFT		
Section 0006 Total				0.00

Section 0007 Br. No. A15955 Items - J4I2374

Alt Group

1150	2161502 REMOVAL OF CONCRETE WEARING SURFACE	10,232.000 SQFT		
1160	4031050 ALTERNATE ASPHALTIC CONCRETE WEARING SURFACE (BRIDGE)	1,137.000 SQYD		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
1170	4094010 SEAL COAT, GRADE B	1,137.000 SQYD		
1180	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	1,050.000 SQFT		
1190	7040106 FULL DEPTH REPAIR	100.000 SQFT		
1200	7040113 CLEAN AND EPOXY SEAL	560.000 SQFT		
Section 0007 Total				0.00

Section 0008 Br. No. A16873 Items - J4I2374

Alt Group

1210	2169904 MISC. removal of epoxy polymer overlay	9,536.000 SQFT		
1220	4039905 MISC. ultrathin bonded asphalt wearing surface, type c	1,060.000 SQYD		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Cts
1230	7034600 CURB BLOCKOUT	649.000 LF		
1240	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	850.000 SQFT		
1250	7040113 CLEAN AND EPOXY SEAL	560.000 SQFT		
Section 0008 Total				0.00

Section 0009 Br. No. A16884 Items - J4I2374

Alt Group

1260	2161502 REMOVAL OF CONCRETE WEARING SURFACE	12,608.000 SQFT		
1270	5051000 LOW SLUMP CONCRETE WEARING SURFACE	1,401.000 SQYD		
1280	6214600A FLOWABLE BACKFILL	25.000 CUYD		
1290	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	900.000 SQFT		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
1300	7040113 CLEAN AND EPOXY SEAL	434.000 SQFT		
Section 0009 Total				0.00

Section 0010 Br. No. A17462 Items - J4I2374

Alt Group

1310	2161502 REMOVAL OF CONCRETE WEARING SURFACE	7,864.000 SQFT		
1320	5051000 LOW SLUMP CONCRETE WEARING SURFACE	874.000 SQYD		
1330	7034600 CURB BLOCKOUT	172.000 LF		
1340	7039903 MISC. remove and replace barrier curb	5.000 LF		
1350	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	800.000 SQFT		
Section 0010 Total				0.00

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Cts
Section 0011 Br. No. A17463 Items - J4I2374				

Alt Group

1360	REMOVAL OF CONCRETE WEARING SURFACE	7,784.000 SQFT		
1370	LOW SLUMP CONCRETE WEARING SURFACE	865.000 SQYD		
1380	CURB BLOCKOUT	169.000 LF		
1390	REPAIRING CONCRETE DECK (HALF-SOLING)	700.000 SQFT		
	Section 0011 Total			0.00

Section 0012 Br. No. A17473 Items - J4I2374

Alt Group

1400	REMOVAL OF CONCRETE WEARING SURFACE	8,754.000 SQFT		
1410	LOW SLUMP CONCRETE WEARING SURFACE	973.000 SQYD		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
1420	7034600 CURB BLOCKOUT	190.000 LF		
1430	7039903 MISC. remove and replace barrier curb	14.000 LF		
1440	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	950.000 SQFT		
1450	7040113 CLEAN AND EPOXY SEAL	1,518.000 SQFT		
	Section 0012 Total			0.00

Section 0013 Br. No. A17474 Items - J4I2374

Alt Group

1460	2161502 REMOVAL OF CONCRETE WEARING SURFACE	8,754.000 SQFT		
1470	5051000 LOW SLUMP CONCRETE WEARING SURFACE	973.000 SQYD		
1480	7034600 CURB BLOCKOUT	190.000 LF		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
1490	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	1,000.000 SQFT		
1500	7040113 CLEAN AND EPOXY SEAL	1,518.000 SQFT		
Section 0013 Total				0.00

Section 0014 Br. No. A22823 Items - J4I2374

Alt Group

1510	2161502 REMOVAL OF CONCRETE WEARING SURFACE	7,176.000 SQFT		
1520	2164000 CURB REMOVAL	203.000 LF		
1530	5051000 LOW SLUMP CONCRETE WEARING SURFACE	797.000 SQYD		
1540	7034215 SAFETY BARRIER CURB	203.000 LF		
1550	7034600 CURB BLOCKOUT	203.000 LF		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
1560	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	650.000 SQFT		
1570	7040113 CLEAN AND EPOXY SEAL	314.000 SQFT		
Section 0014 Total				0.00

Section 0015 Br. No. A22824 Items - J4I2374

Alt Group

1580	2161502 REMOVAL OF CONCRETE WEARING SURFACE	7,164.000 SQFT		
1590	5051000 LOW SLUMP CONCRETE WEARING SURFACE	796.000 SQYD		
1600	7034600 CURB BLOCKOUT	405.000 LF		
1610	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	600.000 SQFT		
1620	7040113 CLEAN AND EPOXY SEAL	314.000 SQFT		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
	Section 0015 Total			0.00

Section 0016 Br. No. A22832 Items - J4I2374

Alt Group

1630	2161502 REMOVAL OF CONCRETE WEARING SURFACE	8,950.000 SQFT		
1640	5051000 LOW SLUMP CONCRETE WEARING SURFACE	994.000 SQYD		
1650	7034600 CURB BLOCKOUT	197.000 LF		
1660	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	950.000 SQFT		
1670	7040113 CLEAN AND EPOXY SEAL	1,452.000 SQFT		
	Section 0016 Total			0.00

Section 0017 Br. No. A22833 Items - J4I2374

Alt Group

--	--	--	--	--

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
1680	2161502 REMOVAL OF CONCRETE WEARING SURFACE	8,950.000 SQFT		
1690	5051000 LOW SLUMP CONCRETE WEARING SURFACE	994.000 SQYD		
1700	7034600 CURB BLOCKOUT	197.000 LF		
1710	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	1,100.000 SQFT		
1720	7040113 CLEAN AND EPOXY SEAL	1,452.000 SQFT		
	Section 0017 Total			0.00

Section 0018 Br. No. A24353 Items - J4I2374

Alt Group

1730	2162500 REMOVAL OF EXISTING BRIDGE DECKS	20,251.000 SQFT		
1740	5031010 BRIDGE APPROACH SLAB (BRIDGE)	362.000 SQYD		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
1750	7034212 SLAB ON STEEL	2,247.000 SQYD		
1760	7034215 SAFETY BARRIER CURB	655.000 LF		
1770	7040102 SUBSTRUCTURE REPAIR (UNFORMED)	25.000 SQFT		
1780	7110200 PROTECTIVE COATING - CONCRETE BENTS (EPOXY)	LUMP AND PIERS	LUMP	
1790	7121159 SHEAR CONNECTORS	1,752.000 EA		
1800	7123610 SLAB DRAIN	12.000 EA		
1810	7172001 STRIP SEAL EXPANSION JOINT SYSTEM	256.000 LF		
	Section 0018 Total			0.00

Section 0019 Br. No. A24362 Items - J4I2374

Alt Group

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
1820	2162500 REMOVAL OF EXISTING BRIDGE DECKS	8,811.000 SQFT		
1830	5031010 BRIDGE APPROACH SLAB (BRIDGE)	364.000 SQYD		
1840	7034212 SLAB ON STEEL	974.000 SQYD		
1850	7034215 SAFETY BARRIER CURB	296.000 LF		
1860	7040102 SUBSTRUCTURE REPAIR (UNFORMED)	75.000 SQFT		
1870	7071000 CONDUIT SYSTEM ON STRUCTURE	LUMP	LUMP	
1880	7123610 SLAB DRAIN	4.000 EA		
1890	7151001 VERTICAL DRAIN AT END BENTS	2.000 EA		
	Section 0019 Total			0.00

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Cts
Section 0020 Br. No. A24372 Items - J4I2374				

Alt Group

1900	2161502 REMOVAL OF CONCRETE WEARING SURFACE	8,998.000 SQFT		
1910	5051000 LOW SLUMP CONCRETE WEARING SURFACE	1,000.000 SQYD		
1920	7034600 CURB BLOCKOUT	309.000 LF		
1930	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	900.000 SQFT		
1940	7040113 CLEAN AND EPOXY SEAL	405.000 SQFT		
	Section 0020 Total			0.00

Section 0021 Br. No. A24382 Items - J4I2374

Alt Group

1950	2161502 REMOVAL OF CONCRETE WEARING SURFACE	6,804.000 SQFT		
------	--	-------------------	--	--

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
1960	5051000 LOW SLUMP CONCRETE WEARING SURFACE	756.000 SQYD		
1970	7034600 CURB BLOCKOUT	271.000 LF		
1980	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	750.000 SQFT		
1990	7040113 CLEAN AND EPOXY SEAL	269.000 SQFT		
Section 0021 Total				0.00

Section 0022 Br. No. A24842 Items - J4I2374

Alt Group

2000	2161502 REMOVAL OF CONCRETE WEARING SURFACE	7,277.000 SQFT		
2010	2164000 CURB REMOVAL	323.000 LF		
2020	5051000 LOW SLUMP CONCRETE WEARING SURFACE	809.000 SQYD		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
2030	7034215 SAFETY BARRIER CURB	323.000 LF		
2040	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	550.000 SQFT		
2050	7040106 FULL DEPTH REPAIR	250.000 SQFT		
2060	7040113 CLEAN AND EPOXY SEAL	599.000 SQFT		
2070	7129902 MISC. cored slab drains	2.000 EA		
Section 0022 Total				0.00

Section 0023 Br. No. A25762 Items - J4I2374

Alt Group

2080	2161502 REMOVAL OF CONCRETE WEARING SURFACE	10,413.000 SQFT		
2090	5051000 LOW SLUMP CONCRETE WEARING SURFACE	1,157.000 SQYD		

1 REVISED

State of MISSOURI
Dept of Transportation
Schedule of Items

1 REVISED

Contract ID: 140124-C04
Letting Date: 01-24-14
Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Cts
2100	7034600 CURB BLOCKOUT	391.000 LF		
2110	7040104 REPAIRING CONCRETE DECK (HALF-SOLING)	700.000 SQFT		
2120	7040113 CLEAN AND EPOXY SEAL	1,432.000 SQFT		
Section 0023 Total				0.00

Section 0024 Roadway Items - J4I3020C

Alt Group

2130	2022010 REMOVAL OF IMPROVEMENTS	LUMP	LUMP	
2140	2121000A SUBGRADING AND SHOULDERING CLASS 1	1.000 100F		
2150	3040173 TYPE 1 AGGREGATE FOR BASE (7 IN. THICK)	77.000 SQYD		
2160	4011209 BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1)	37.800 TONS		

1 REVISED

State of MISSOURI
 Dept of Transportation
 Schedule of Items

1 REVISED

Contract ID: 140124-C04
 Letting Date: 01-24-14
 Project(s): J4I2353, J4I2374, J4

Bidder: -

Line No.	Item Description	Approx. Quantity and Units	Unit Price Dollars Cts	Bid Amount Dollars Ct
2170	6091010 CONCRETE CURB (6 IN. HEIGHT AND UNDER) TYPE S	1,762.000 LF		
2180	6099902 MISC. ROCK FLUME DRAIN	9.000 EA		
2190	6181000 MOBILIZATION	LUMP	LUMP	
2200	8051000A SEEDING - COOL SEASON MIXTURES	0.300 ACRE		
2210	8061016 SEDIMENT REMOVAL	18.000 CUYD		
2220	8061019 SILT FENCE	1,832.000 LF		
2230	8061022 TYPE II DITCH CHECK	5.000 EA		
	Section 0024 Total			0.00
	Bid Total			0.00

1 REVISED

Contract Id: 140124-C04
Vendor Name:

Vendor Number:

SUBCONTRACTOR DISCLOSURE

The bidder shall submit with this bid any subcontracts that meet the requirements of Sec 102. List below the name of each subcontractor that will be furnishing labor or labor and materials, the category of work that the subcontractor will be performing (e.g. asphalt, concrete, earthwork, bridges...), and the dollar value of the subcontract. Select "NONE" if there are no subcontractors that need to be disclosed.

If the information is not available at the time of bid the bidder shall submit the "Subcontractor Disclosure Form", located on MoDOT's website, on or before 4:00 p.m. of the third business day after the bid opening date, directly to the Design Division, Missouri Department of Transportation, 105 W. Capitol Avenue, P.O. Box 270, Jefferson City, Missouri 65102-0270. Telefax transmittal to MoDOT will be permitted at fax no. 573-522-2281 or e-mailed to subcontractor.disclosure@modot.mo.gov. The complete signed original documents do not need to be mailed to MoDOT, but the bidder shall have it available if requested by the Design Division or the engineer.

SUBCONTRACTOR NAME	DOLLAR VALUE OF SUBCONTRACT	CATEGORY OF WORK
--------------------	--------------------------------	------------------

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we as principal and and as surety, are held and firmly bound unto the state of Missouri (acting by and through the Missouri Highways and Transportation Commission) in the penal sum of 0.00 Dollars to be paid to the commission to be credited to the state road fund, the principal and surety binding themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this.

THE CONDITION OF THIS OBLIGATION is such that WHEREAS the principal is submitting herewith a bid to the commission on

route(s)
in County(ies)
project(s)

for construction or improvement of state highway as set out in said bid;

NOW THEREFORE, if the commission shall accept the bid of the principal and if the principal shall properly execute and deliver to the commission the contract, contract bond, and evidence of insurance coverage in compliance with the requirements of the bid, the specifications, and the provisions of section 227.100 RSMo, to the satisfaction of the commission, then this obligation shall be void and of no effect, otherwise to remain in full force and effect.

In the event the said principal shall, in the judgment of the commission, fail to comply with any requirement as set forth in the preceding paragraph, then the state of Missouri, acting by and through the commission, shall immediately and forthwith be entitled to recover the full penal sum above set out, together with court costs, attorney's fees, and any other expense of recovery.

The principal and surety hereby certify that the document is the original or a verbatim copy of the bid bond form furnished by the Commission, in accordance with Sec 102.9 of the Missouri Standard Specifications for Highway Construction.


This Bid contains 1 amendment files

00001 01-14-14 Revised Schedule of Items

JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)

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

- A. General - Federal
- B. Contract Liquidated Damages
- C. Work Zone Traffic Management Plan
- D. Project Contact for Contractor / Bidder Questions
- E. Emergency Provisions and Incident Management
- F. Utilities
- G. Liquidated Damages for Winter Months
- H. Supplemental Revisions
- I. Sequential Flashing Warning Lights
- J. Quality Management
- K. Liquidated Damages for Work Zone Delay
- L. Safety Plan
- M. Coldmilling Requirements
- N. Contractor Retained Guardrail
- O. Wet Reflective Pavement Markings
- P. Surface Sealing Treatment
- Q. Protection of the BNSF Railway Interests
- R. Pavement Marking Log
- S. Disposition of Existing Signs
- T. High Tension Socketed Safety Fence, TL-3
- U. Pavement for Vegetative Barrier
- V. Removal of Improvements – Excess Pavement Material
- W. Fertilizing, Seeding, and Mulching

 <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636</p>
	<p>If a seal is present on this sheet, JSP's have been electronically sealed and dated.</p>
	<p>JOB NUMBER: J412353 PLATTE COUNTY, MO DATE PREPARED: 11-06-13</p>
	<p>ADDENDUM DATE:</p>
<p>Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: All</p>	

JOB SPECIAL PROVISIONS

A. GENERAL - FEDERAL JSP-09-02A

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 "Bidding". 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 "Business"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to October 2009 Missouri Std. Plans
For Highway Construction

These supplemental bidding documents contain all current revisions to the bound printed 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

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 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:	April 7, 2014
Completion Date (I-635 work):	October, 31 2014
Completion Date (I-29 work):	October, 30 2015

2.1 Calendar Days. The count of calendar days will begin on the date the contractor starts any construction operations on the project.

Job Number	Calendar Days
J4I2374, J4I2353 & J4I3020C	(I-635 work) 161
J4I2374	(I-29 work) 170

3.0 Liquidated Damages for Contract Administrative Costs. Should the contractor fail to complete the work on I-635 on or before the 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 the amount of **\$1,500.00** per calendar day for each full calendar day that the work is not fully completed on I-635. Should the contractor fail to complete the work on I-29 on or before the 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 the amount of **\$1,500.00** per calendar day for each full calendar day that the work is not fully completed on I-29. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the above specified 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 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 4.1. These damages are in addition to the contract administrative damages and any other damages as specified elsewhere in this contract.

4.1 Road User Costs.

Job Number		Road User Cost
J4I2374, J4I2353 & J4I3020C	(I-635 work)	\$9,800.00
J4I2374	(I-29 work)	\$11,400.00

C. WORK ZONE TRAFFIC MANAGEMENT PLAN

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

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, hours traffic control will be in place, and work hours.

2.2 The contractor shall notify the engineer 48 hours prior to lane closures, shifting traffic onto detours, or shifting traffic within roadways. The contractor shall notify the engineer one week prior to closing roadways or ramps. Weekends and holidays shall not be considered part of the advance notice period.

2.3 The engineer shall be immediately notified of any postponement due to weather, material or other circumstances. A new traffic management schedule shall be submitted to the engineer for approval.

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 The contractor shall be responsible for maintaining the existing traffic flow through the job site during construction. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minutes or longer, then the contractor shall review the construction operations that contributed directly to disruption of the traffic flow and make adjustments to operations to prevent the queues from occurring again.

2.5.1 Traffic Safety.

2.5.1.1 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 When a traffic queue extends 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 due to non-recurring congestion, 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 There are three major summer holiday periods: Memorial Day, Independence Day, and Labor Day. All lanes shall be scheduled to be open to traffic during these holiday periods, from 12:00 noon on the last working day preceding the holiday until 9:00 a.m. on the first working day subsequent to the holiday.

3.2 Based on the data in the table below the contractors operations will be restricted accordingly unless it can be successfully demonstrated that their operations can be performed without a 15 minute queue in traffic. It shall be the responsibility of the engineer to determine if the above work hours may be modified.

I-635 Northbound restricted hours (1 lane closed and shoulder operations)
Monday- Friday 2:00 p.m. to 7:00 p.m.

I-635 Northbound restricted hours (2 lane closure)
Monday-Thursday 6 a.m. to 8 p.m.

I-635 Southbound restricted hours (1 lane closed and shoulder operations)
Monday-Thursday 7:00 a.m. to 9:00 a.m. and 5:00 p.m. to 7:00 p.m.

I-635 Southbound restricted hours (2 lane closure)
Monday-Thursday 6 a.m. to 9:00 p.m.
Friday 6 a.m. to 10 p.m.

3.3 Lane closures shall be limited to one mile maximum in length, unless otherwise approved by the engineer.

3.4 The contractor shall not perform any construction operation on the roadbed, including the hauling of material within the project limits, during holiday periods or other special events. Working hours for weekends and special events will be determined by the engineer.

4.0 Lane Closures.

4.1 The contractor shall provide changeable message signs notifying motorists of future traffic disruption and possible traffic delays one week before ramp or roadway closures and 48 hours in advance of lane closures, shifting traffic onto detours, or shifting traffic within roadways. The changeable message sign shall be installed at a location as approved or directed by the engineer.

4.2 The contractor shall immediately place another changeable message sign in advance of existing in place work zone signs / existing in place changeable message sign if and when traffic builds up past these existing in-place signs.

4.3 At least one lane of traffic on I-635 in each direction shall be open to traffic at all times.

5.0 Basis of Payment. No direct payment will be made to the contractor to recover the cost of equipment, labor, materials or time required to fulfill this provision, unless specified elsewhere in the contract document.

D. PROJECT CONTACT FOR CONTRACTOR / BIDDER QUESTIONS

All questions concerning this project **J412353** during the bidding process shall be forwarded to the project contact listed below.

Allan Ludiker, P.E., Transportation Project Manager
Kansas City District
600 NE Colbern Road,
Lee's Summit, MO 64086
Telephone Number: (816) 607-2267
Email: Allan.Ludiker@modot.mo.gov

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

E. EMERGENCY PROVISIONS AND INCIDENT MANAGEMENT

1.0 The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from the police or other emergency agencies for incident management. In case of traffic accidents or the need for police to direct or restore traffic flow through the job site, the contractor shall notify police 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 police services, the following agencies may also be notified for accident or emergency situation within the project limits.

Missouri Highway Patrol (816-622-0800)
Platte County Sheriff (816-858-2232)
Emergency 911

Non-Emergency Numbers

City of Riverside
Fire: 816-372-9024
Police: 816-741-0895

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 police agency.

2.2 The contractor shall notify 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 enforcement and emergency agencies, a report shall be furnished to the engineer on the status of incident management.

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

F. UTILITIES

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

<u>Utility Company</u>	<u>Known Required Adjustment</u>
Mr. Allen Ackland, PMP Supervising Engineer, Transmission Kansas City Power and Light Co. 4400 E. Front St. Kansas City, MO 64120 (816) 245-3753	None
Mr. Brian Cornish CenturyLink 5454 West 110th Street Overland Park, KS 66211 (913) 345-7524	None

1.1 The existence and approximate location of utility facilities known to exist, as shown on the plans, are based upon the best information available to the Commission at this time. This information is provided by the Commission "as-is" and the Commission expressly disclaims any representation or warranty as to the completeness, accuracy, or suitability of the information for any use. Reliance upon this information is done at the risk and peril of the user, and the Commission shall not be liable for any damages that may arise from any error in the information. It is, therefore, the responsibility of the contractor to verify the above listing information indicating existence, location and status of any facility. Such verification includes direct contact with the listed utilities.

1.2 The contractor agrees that any effects of the presence of the utilities, their relocation, contractor's coordination of work with the utilities and any delay in utility relocation shall not be compensable as a suspension of work, extra work, a change in the work, as a differing site condition or otherwise including but, without limitation, delay, impact, incidental or consequential damages. The contractor's sole remedy for the effects of the presence of utilities, delay in their relocation or any other effects shall be an excusable delay as provided in Section 105.7.3. The contractor waives, for itself, its subcontractors and suppliers the compensability of the presence of utilities, delay in their relocation and any cost to the contractor, it's subcontractors and suppliers in any claim or action arising out of or in relation to the work under the contract.

1.3 The contractor shall be solely responsible and liable for incidental and consequential damage to any utility facilities or interruption of the service caused by it or its subcontractors operation. The contractor shall hold and save harmless the Commission from damages to any utility facilities interruption of service by it or it's subcontractor's operation.

2.0 It shall be noted by the contractor that MoDOT is a member of Missouri One Call (800 Dig Rite). Some work on this project may be in the vicinity of MoDOT utility facilities, which includes but is not limited to traffic signal cables, highway lighting circuits, ITS cables, cathodic protection cables, etc. Prior to beginning work, the contractor shall request "locates" from Missouri One Call. The contractor shall also complete the Notice of Intent to Perform Work form located at the Missouri Department of Transportation website:

<http://www.modot.mo.gov/asp/intentToWork.shtml>

The contractor shall submit the form over the web (preferred method) or by fax to the numbers on the printed form. The notice must be submitted a minimum of 2 and a maximum of 10 working days prior to excavation just as Missouri One Call requires.

H. LIQUIDATED DAMAGES FOR WINTER MONTHS

1.0 Description. Revise Sec 108.8.1.2 (a) and (b) and substitute the following for the project:

- (a) Liquidated damages will be assessed from December 15 to March 15
- (b) Liquidated damages will be assessed for Saturdays, Sundays and Holidays.

H. SUPPLEMENTAL REVISIONS JSP-09-01M

Insert Sec 109.15, Sec 109.16 and Sec 109.17, subsequent section renumbered accordingly:

109.15 Seal Coat Price Index. Adjustments will be made to the payments due the contractor for Seal Coat placed in accordance with Section 409 of the Standard Specifications when the quantity exceeds 50,000 square yards for an individual project or any number of projects in the contract combination. Adjustments will be calculated in accordance with Asphalt Cement Price Index of the General Provisions, except as defined herein.

109.15.1 Basis of Payment. To determine the adjustment for any material specified in this provision the following formula will be used.

$$A = B \times (2.01/2000) \times (D - E)$$

Where: A = adjustment for Seal Coat placed during the index period
B = square yards of seal coat placed during the index period
D = average index price at the beginning of the period
E = average index price at the time of bid

109.15.2 Optional. This provision is optional. If the bidder wishes to be bound by this provision, the bidder shall execute the acceptance form in the Bid for the Asphalt Cement Price Index. Acceptance of this provision will apply to both the Asphalt Cement Price Index and Seal Coat Price Index. Failure by the bidder to execute the acceptance form will be interpreted to mean election to not participate in the Asphalt Cement Price Index or Seal Coat Price Index.

109.16 Asphalt Underseal Price Index. Adjustments will be made to the payments due the contractor for Asphalt underseal placed in accordance with Section 625 of the Standard Specifications when the quantity exceeds 10,000 gallons for an individual project or any number of projects in the contract combination. Adjustments will be calculated in accordance with Asphalt Cement Price Index of the General Provisions, except as defined herein.

109.16.1 Basis of Payment. To determine the adjustment for any material specified in this provision the following formula will be used.

$$A = B \times (8.66/2000) \times (D - E)$$

Where: A = adjustment for asphalt underseal placed during the index period
B = gallons of asphalt underseal placed during the index period
D = average index price at the beginning of the period
E = average index price at the time of bid
(use average specific gravity of 1.04 for underseal)

109.16.2 Optional. This provision is optional. If the bidder wishes to be bound by this provision, the bidder shall execute the acceptance form in the Bid for the Seal Coat Price Index. Failure by the bidder to execute the acceptance form will be interpreted to mean election to not participate in the Seal Coat Price Index.

109.17 Polymer Modified Emulsion Membrane Price Index. Adjustments will be made to the payments due the contractor for Polymer Modified Emulsion Membrane placed in accordance with Sec 413.30 when the quantity exceeds 5,000 square yards. Adjustment will be calculated in accordance with the Supplemental Asphalt Price Adjustment except as defined herein.

109.17.1 Basis of Payment. To determine the adjustment for any material specified in this provision the following formula will be used.

$$A=B \times (1.20/2000) \times (D - E)$$

Where: A = adjustment for membrane placed during the index period
B = square yards of membrane placed during the index period
D = average index price at the beginning of the period
E = average index price at time of bid

109.17.2 Optional. This provision is optional. If the bidder wishes to be bound by the provision, the bidder shall execute the acceptance form in the Bid for Polymer Modified Emulsion Membrane Price Index. Failure by the bidder to execute the acceptance form will be interpreted to mean election not to participate in the Polymer Modified Emulsion Membrane Price Index.

Delete Sec 407 in its entirety and substitute the following:

407.1 Description. This work shall consist of preparing and treating an existing bituminous or concrete surface with bituminous material, in accordance with these specifications.

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

Item	Section
Emulsified Asphalt or PG Liquid Asphalt	1015

407.3 Equipment. The contractor shall provide a system for heating and applying the bituminous material. The system shall be designed, equipped, maintained and operated such that emulsified asphalt or liquid asphalt, at even heat, may be applied uniformly on variable widths of surface up to 15 feet with uniform pressure and an allowable variation from any

specified rate of ± 0.01 gallon per square yard. The system shall include a calibrated tank and a thermometer for measuring temperature of tank contents. The system shall be equipped with instrumentation that continuously verifies application rates. The calibration of the system shall be approved by the engineer prior to use, and the contractor shall furnish all equipment, material and assistance if calibration is required.

407.4 Construction Requirements.

407.4.1 Preparation of Surface. The existing surface shall be free of all dust, loose material, grease or other foreign material at the time the tack is applied. Any excess bituminous surface mixture or bituminous joint material will be removed by MoDOT without cost to the contractor before the tack is applied.

407.4.2 Application. Asphalt emulsion or PG liquid asphalt shall be applied uniformly with a pressure distributor at the minimum rates indicated in the following table. No dilution of the emulsified asphalt material shall be allowed. The tack coat material shall be heated at the time of application to a temperature in accordance with Sec 1015. The tack coat shall be properly cured and the tacked surface shall be clean of all dirt before the next course is placed.

Tack Coat Application Rates	
Surface Type	Minimum Application Rate (gal/sq yd)
New Asphalt Pavement	0.05
Existing Asphalt or Concrete Pavement	0.08

407.4.3 Tack. The tack coat shall be applied in such a manner as to cause the least inconvenience to traffic and to permit one-way traffic without tracking of asphalt emulsion. All exposed tack coat shall be covered with bituminous mixture prior to opening to traffic.

407.5 Method of Measurement. Measurement of asphalt emulsion to the nearest 10 gallons will be made in accordance with Sec 1015.

407.6 Basis of Payment. The accepted quantity of tack coat will be paid for at the contract unit price.

Delete Sec 1015.20.5.1 and substitute the following:

1015.20.5.1 Polymer Modified Asphalt Emulsion – Seal Coat. Bituminous material for polymer modified asphalt shall be in accordance with the following:

Polymer Modified Asphalt Emulsion				
Test ^a	CRS-2P		EA-90P	
	Min	Max	Min	Max
Viscosity, SSF @ 50 C	100	400	100	400
Storage Stability Test ^b , 24 hour, percent	----	1	----	1
Classification Test	Pass	----	----	----
Particle Charge Test	Positive	----	----	----
Sieve Test, percent	----	0.3	----	0.3
Demulsibility, 0.02 N CaCl ₂ , percent	----	----	30	----
Distillation:				
Oil distillate by volume of emulsion, percent	----	3	----	3
Residue from distillation ^c , percent	65	----	65	----
Tests on Residue from Distillation:				
Penetration, 25 C, 100 g, 5 sec	100	200	100	200
Ductility, 4 C, 5 cm/minute, cm	30	----	25	----
Ash ^d , percent	----	1	----	1
Float Test at 60 C, sec	----	----	1200	----
Elastic Recovery ^e , percent	58	----	58	----

^aAll tests shall be performed in accordance with AASHTO T 59 except as noted.

^bIn addition to AASHTO T 59, upon examination of the test cylinder, and after standing undisturbed for 24 hours, the surface shall show no appreciable white, milky colored substance and shall be a homogeneous brown color throughout.

^cAASHTO T 59 shall be modified to maintain a 399 F ± 10 F maximum temperature for 15 minutes.

^dPercent ash shall be determined in accordance with AASHTO T 111, *Ash in Bituminous Material*.

^eElastic recovery shall be determined as follows. Condition the ductilometer and samples to be treated at 50 F. Prepare the brass plate, mold and briquet specimen in accordance with AASHTO T 51. Keep the specimen at the specified test temperature of 50 F for 85 to 95 minutes. Immediately after conditioning, place the specimen in the ductilometer and proceed to elongate the sample to 20 cm at a rate of pull of 5 cm/min. After the 20 cm elongation has been reached, stop the ductilometer and hold the sample in the elongated position for 5 minutes. After 5 minutes, clip the sample approximately in half by means of scissors or other suitable cutting devices. Let the sample remain in the ductilometer in an undisturbed condition for one hour. At the end of this time period, retract the half sample specimen until the two broken ends touch. At this point note the elongation (x) in cm. Calculate the percent recovery by the following formula:

$$\% \text{ Recovery} = \frac{20 - X}{20} \times 100$$

Polymer Modified Asphalt Emulsion		
Test ^a	CHFRS-2P	
	Min.	Max.
Viscosity, SFS @ 50 C	100	400
Storage Stability Test, 24 hour, percent	---	1.0
Demulsibility, 35 ml 0.8% dioctyl sodium sulfosuccinate, percent	60	---
Sieve Test, percent	---	0.10
Particle Charge Test	Positive	
Distillation ^b		
Oil Distillate, by volume of emulsion, percent	---	0.5
Residue from distillation, percent	65	---
Tests on Residue from Distillation:		
Polymer content, weight, percent (solids based)	3.0	---
Softening Point, C	54	---
Float test at 60 C, s	1800	---
Penetration, 25 C, 100 g, 5 s	80	130
Viscosity @ 60 C, Poise	1300	---
Solubility in Trichloroethylene, percent	95	---
Elastic Recovery ^c @ 10 C, percent	65	---

^aAll tests shall be performed in accordance with AASHTO T-59 except as noted.

^bAASHTO T59 shall be modified to maintain a 177 ± 5 C maximum temperature to be held for 20 minutes. Complete the total distillation in 60 ± 5 minutes from the first application of heat.

^cElastic recovery shall be determined as follows. Condition the ductilometer and samples to be treated at 10 C. Prepare the brass plate, mold, and briquet specimen in accordance with AASHTO T 51. Keep the specimen at the specified test temperature of 10 C for 85 to 95 minutes. Immediately after conditioning, place the specimen in the ductilometer and proceed to elongate the sample to 20 cm at a rate of pull of 5 cm/min. After the 20 cm elongation has been reached, stop the ductilometer and hold the sample in the elongated position for 5 minutes. After the 5 minutes, clip the sample approximately in half by means of scissors or other suitable cutting devices. Let the sample remain in the ductilometer in an undisturbed condition for one hour. At the end of this time period, retract the half sample specimen until the two broken ends touch. At this point note the elongation recovery (X) in cm. Calculate the percent recovery by the following formula:

$$\% \text{ Recovery} = \frac{20 - X}{20} \times 100$$

Amend Sec 1015.20.5.1.1 to include the following:

1015.20.5.1.1 Polymer Modified Asphalt Emulsion – Tack Coat. Bituminous material for polymer modified asphalt shall be in accordance with the following:

Slow Setting Polymer Modified Asphalt Emulsion ^a					
		SS-1HP		CSS-1HP	
Test on Emulsion	Method	Min	Max	Min	Max
Viscosity, Saybolt Furol @ 25°C (77°F), s	AASHTO T 59	20	100	20	100
Particle Charge Test		Negative		Positive	
Storage Stability Test ^b , 24 hr, percent	AASHTO T 59	--	1	--	1
Sieve Test, percent	AASHTO T 59	--	0.50	--	0.50
Residue by Distillation ^c , percent	AASHTO T 59	57		57	
Oil Distillate by Distillation, percent	AASHTO T 59	--	--	--	--
Test on Residue from Distillation					
Penetration 25°C, 100 g, 5 s	AASHTO T 49	40	90	40	90
Elastic Recovery ^d , 20 cm, 5 cm/min, 60 min, %	AASHTO T 301	30	--	30	--
Solubility in Trichloroethylene ^e , %	AASHTO T 44	97.5	--	97.5	--

^a The emulsified asphalt shall be in accordance with Section 1015.20.5 of the 2011 Missouri Standard Specifications for Highway Construction, except as indicated above, and shall be modified with a styrene-butadiene diblock or triblock copolymer or a styrene butadiene rubber.

^b In addition to AASHTO T 59, upon examination of the test cylinder, and after standing undisturbed for 24 hours, the surface shall show no appreciable white, milky colored substance and shall be homogeneous brown color throughout. The storage stability test may be waved provided the asphalt emulsion storage tank at the project site has adequate provisions for circulating the entire contents of the tank, provided satisfactory field results are obtained.

^c AASHTO T 59 shall be modified to use a lower distillation temperature of 177° C (350° F).

^d AASHTO T 301 shall be modified to allow the residue to be obtained from distillation as long as the distillation temperature is modified as stated above. The test on residue shall be conducted at a temperature of 10° C (50° F).

^e In lieu of performing AASHTO T 44, AASHTO T 111, Ash in Bituminous Material, may be performed with a maximum allowable percent ash of 1.0 percent.

I. SEQUENTIAL FLASHING WARNING LIGHTS

1.0 Description. This specification covers the furnishing, installation and maintenance of Sequential Flashing Warning Lights for use on trim-line channelizer or Directional Indicator Barricade devices within the work zone taper.

2.0 Material.

2.1 Warning lights shall be in accordance with the MUTCD and ITE's 'Purchase Specification for Flashing and Steady-burn Warning Lights' and shall be considered a lightweight light per FHWA letter WZ-54. Warning lights shall consist of a single unit (head and housing), employ LED technology, and be equipped with tamper-proof mounting hardware.

2.2 Sequential Flashing Warning Lights (SFWL) shall have an On/Off switch. SFWL shall be capable of communicating through wireless technology. SFWL shall be able to be placed in any order and provide sequential lighting through the taper. If individual SFWL are not operating, the remaining SFWL shall be capable of providing sequential lighting through the taper.

2.3 Certification and Acceptance. The manufacturer shall provide written certification the SFWL provided comply with the requirements of this specification. Acceptance of SFWL will be by certification and any tests deemed necessary by the department for compliance with this specification.

3.0 Construction Requirements. This work shall be in accordance with Sec 616 and standard plan 616.10, and shall include all maintenance, including repair or replacement of non-functioning units.

4.0 Method of Measurement. Final measurement will not be made, except for authorized changes during construction or where appreciable errors are found in the contract quantity. Where required, measurement of SFWL will be made per each. The revision or correction will be computed and added to or deducted from the contract quantity. Replacement units shall not be counted in the final measurement.

5.0 Basis of Payment. The accepted quantity of SFWL will be paid for at the contract unit price for Sequential Flashing Warning Lights, Item No. 616-99.02, per each (see J412374 for quantity).

J. QUALITY MANAGEMENT

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

1.1 The contractor shall provide all Quality Control (QC) of the work and material. Contractor QC staff shall hold the primary responsibility for ensuring all work and material is in compliance with contract requirements. QC staff shall perform and document all inspection and testing. The QC inspectors and testers may be employed by the contractor, sub-contractor, or a qualified professional service hired by the contractor.

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

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

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

2.0 Quality Management Plan. The contractor shall develop, implement and maintain a Quality Management Plan (QMP) that will ensure the project quality meets or exceeds all contract requirements, and provides a record for acceptance of the work and material.

2.1 The QMP shall address all QC inspection and testing requirements of the work as described herein. A draft QMP shall be submitted to the Resident Engineer for review at least two weeks prior to the pre-construction conference.

2.2 Physical work on the project shall not begin prior to approval of the QMP by the engineer. The approved QMP shall be considered a contract document and any revisions to the QMP will require approval from the engineer.

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

- a) General organizational structure of the contractor's production and QC staff.
- b) Name, qualifications and job duties of the Quality Manager.
- c) A list of all certified QC testers who will perform QC duties on the project, including sub-contract work, and the areas of testing in which they are certified.
- d) A list of all QC inspectors who will perform inspection duties on the project, including sub-contract work, and the areas of inspection that they will be assigned.
- e) A Document Control Procedure for verifying documentation is accurate and complete as described in Section 3.
- f) A procedure describing QC Inspections as outlined in Section 4.
- g) A procedure describing QC Testing, as outlined in Section 5, including a job specific Inspection and Test Plan (ITP).
- h) A procedure describing Material Receiving as outlined in Section 6.
- i) A list of Hold Points as outlined in Section 8.
- j) A procedure for documenting and resolving Non-Conforming work as described in Section 9.
- k) A procedure for tracking revisions to the QMP.
- l) A list of any approved changes to the Standard Specifications or ITP, including a reference to the corresponding change order.

m) Format for the Weekly Schedule and Work Plans as described in Section 10, including a list of activities that will require pre-activity meetings.

3.0 Project Documentation. The contractor shall establish a Document Control Procedure for producing and uploading the required Quality Management documents to a web-based electronic storage site provided by MoDOT (Microsoft SharePoint), or to an alternate storage site provided by the contractor and approved by the engineer. This process will allow efficient sharing of documents among authorized users. Any proposed alternate site must provide equal or better efficiency in document sharing as the MoDOT provided site. If an alternate site is utilized, upon completion of the project the contractor shall provide all files to the engineer on an approved electronic media.

3.1 The contractor shall utilize a file naming system that allows efficient location of documents. The file naming system for each folder should be shown in the QMP.

3.2 Documents (standard forms, reports, and checklists) referenced throughout this provision are considered the minimum documentation required. They shall be obtained from MoDOT at the following web address: <http://www.modot.org/quality>. The documents provided by MoDOT are required to be used in the original format, unless otherwise approved by the engineer. Contractor-altered versions may be allowed in some cases; however, many of these forms must remain in the original format in order to simplify data entry into SiteManager (MoDOT's internal project management system).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

9.0 Non-Conforming Work. Non-conforming work is defined as work that does not meet the contract requirements. The contractor shall establish a procedure for identifying and resolving non-conforming work as well as tracking the status of the reports.

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

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

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

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

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

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

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

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

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

K. LIQUIDATED DAMAGES FOR WORK ZONE DELAY

1.0 The contractor shall not alter the start time, ending time, or a reduction in the number of through lanes of traffic or ramp closure without advance notification and approval by the engineer. The only work zone operation approved to begin 30 minutes prior to a reduction in through traffic lanes or ramp closures is the installation of traffic control signs. Should lane closures be placed or remain in place, prior to the approved starting time or after the approved ending time, 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 15 minute increments with **\$5,000 for the first 15 minutes, \$10,000 for each 15 minutes** increments thereafter for a maximum of **\$35,000 per hour**, then

\$35,000 per hour thereafter that the temporary lane closures are in place and not 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 unapproved closure time.

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

L. SAFETY PLAN

1.0 Description. This contractor shall submit to the engineer a project Safety Plan (SP) for all work performed by the contractor and all subcontractors. The purpose of the SP is to encourage and enable all work to be performed in the safest possible manner and that all parties involved are aware of their individual responsibility for safety on the jobsite.

1.1 The SP shall be completed by the contractor and provided to the engineer prior to the beginning of any construction activity or phase on the project.

1.2 The contractor shall designate a person to serve as Project Safety Manager (PSM). The PSM shall be responsible for implementing and overseeing the SP. The PSM is not required to be present on the project at all times, but must be available to address safety issues and needs.

1.3 The PSM shall make revisions to the SP as necessary. Any new project activities or phases shall be included in the SP prior to work beginning on that activity or phase.

1.4 An example Safety Plan is available at: www.modot.org/safetyplan

2.0 Emergency Preparedness. The SP shall outline and detail for all workers, the specific procedures and actions necessary to respond to a jobsite emergency and the measures taken to communicate these requirements to all workers.

2.1 The SP shall include a list of local emergency contacts including phone numbers. A copy of the emergency contact list shall be accessible to workers.

2.2 In the case where there is no cellular or land line phone service at the jobsite, the SP shall identify how to reach the nearest available phone service.

3.0 Project Safety Analysis. The SP should contain a basic Project Safety Analysis (PSA) that outlines the actions necessary to complete each activity or phase of the project. The SP shall include a general description of the primary activities or steps required to safely complete the project.

3.1 Each activity should also include a general description of the work involved along with the known risks associated with the activity. In addition the PSA should outline the controls for those risks, including any Personal Protection Equipment (PPE) requirements for that activity or phase, and whether or not the activity or phase requires a specific safety meeting prior to beginning the activity or phase.

3.2 Submittal of the PSA for all activities or phases is not required with the initial submittal of the SP; however, the PSA for each activity or phase shall be completed prior to the beginning of that activity or phase.

4.0 Safety Meetings. The SP shall include the types of safety meetings that will be required of and conducted by the contractor.

5.0 Safety Training. The SP shall identify the required safety training provided to the contractor's personnel. The contractor shall require that the appropriate safety training for the contractor's personnel is completed prior to the beginning of work on each activity or phase.

5.1 The SP shall identify the recommended safety training needs and PPE for MoDOT employees who will be exposed to the work activities. MoDOT will provide safety training and PPE to MoDOT employees based on MoDOT safety policies.

6.0 Payment. There will be no direct payment for compliance with this Safety Plan provision.

M. COLDMILLING REQUIREMENTS JSP-04-16

1.0 Description. The contractor will only be allowed to coldmill an area in which the first lift of bituminous material can be constructed in the same day's operation.

1.1 Coldmilled areas that are exempt from the above requirement include typical transverse joint transitions for project beginning, end, ramp or bridge transitions and but joints for overlays at entrances and approaches.

1.2 All exempt coldmilled areas shall have a temporary header installed and maintained until the first lift of bituminous material can be constructed.

2.0 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 provision.

N. CONTRACTOR RETAINED GUARDRAIL JSP-04-11

1.0 Description. All guardrail removed from this project shall become the property of the Contractor and shall be disposed of in accordance with Sec 202.

2.0 Basis of Payment. All costs incurred for complying with this provision shall be considered completely covered by the contract unit price for Item No. 202-20.10, Removal of Improvements.

O. WET REFLECTIVE PAVEMENT MARKINGS - JSP 08-06C

1.0 Description. This work shall consist of furnishing and installing wet reflective pavement markings with grooves as shown on the plans or as directed by the engineer. The pavement markings shall consist of pavement marking paint as specified in the plans, MoDOT Type P glass beads, wet reflective pavement marking elements and grooving. The beads and wet

reflective elements shall be placed as a double drop system to provide wet night retroreflectivity. This work shall be in accordance with Sec 620 and accompanying provisions except as modified herein

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

Item	Section
Type P Drop-On Glass Beads	1048.40
Epoxy Pavement Marking Material	1048.60
High Build Acrylic Waterborne Pavement Marking Paint	1048.90

2.1 Wet Reflective Elements. The wet reflective elements used shall be from the following approved products list:

Manufacturer	Product
3M Inc.	All Weather Elements (Series 50 or 90)
Potters Industries, Inc.	Visimax
Swarco	Plus-9-Spots

3.0 Construction Requirements for Pavement Markings.

3.1 Application of the wet reflective marking shall consist of placement of the marking paint, followed by the application of Type P glass beads and the wet reflective elements. Manufactures recommendations shall be followed in the application of the wet reflective elements including, if applicable, the matching of bead colors with paint colors.

3.2 The width of the line shall be as shown on the plans.

3.3 The marking paint shall be applied at a minimum thickness as shown in the following chart. The thickness may be increased depending on manufacturer's recommendations to properly hold the bead system.

High Build Acrylic Waterborne Marking Paint	20 mils
Epoxy Pavement Marking Material	25 mils

3.4 Type P glass beads and the wet reflective elements shall be mechanically applied to the wet paint directly behind the paint spray guns. The order of application and the application rates of the Type P beads and the wet reflective elements shall be based on the manufacturer's recommendations to provide wet night retroreflectivity.

3.5 The completed pavement marking system shall meet the initial retroreflectivity requirements of Sec. 620.2.4.1.

3.6 The contractor shall assure the engineer that the wet reflective system has been calibrated for proper application according to manufacturer's recommendations before the application begins.

4.0 Construction Requirements for Grooving.

4.1 The grooves shall be cut such that the surface of the groove is uniform with minimal variation in height.

4.2 The grooves shall be located where the final pavement marking will be placed according to the plans or as directed by the engineer.

4.3 The width of the groove shall be 7 inches.

4.4 The final depth of the groove shall be 80 mils, plus or minus 5 mils.

4.5 The groove shall be clean and dry before the installation of the pavement marking can proceed.

4.6 All debris resulting from the installation of the grooves shall be removed and disposed of by the contractor.

5.0 Method of Measurement.

5.1 Final measurement will not be made except for authorized changes during construction or where appreciable errors are found in the contract quantity. The revision or correction will be computed and added to or deducted from the contract quantity.

5.2 Where required, measurement of 4 inch, 6 inch, 8 inch or 24 inch pavement marking will be made to nearest linear foot. Where intermittent lines are specified, deductions will be made for the gaps in pavement marking.

6.0 Basis of Payment.

6.1 The accepted quantity of wet reflective pavement markings will be paid at the contract unit price for each of the pay items included in the contract.

6.2 No direct payment will be made for grooving. All labor, equipment and material cost required to fulfill this requirement shall be included in the unit price for each of the pay items included in the contract.

P. SURFACE SEALING TREATMENT

1.0 Description. This work shall consist of furnishing and applying a surface sealing treatment to the existing roadway as shown on the plans. The surface treatment shall contain a mixture of cationic polymer modified asphalt emulsion, fine aggregate, water, and other additives as needed.

2.0 Material Requirements.

2.1 Bituminous Material. The bituminous material shall be a polymer modified asphalt emulsion in accordance with the following table. The bituminous material shall show no

separation after mixing. The emulsion shall be sampled in accordance with AASHTO T 40.

Asphalt Emulsion (CSS)			
	Min.	Max.	Test Method
Viscosity, Saybolt Furol at 25 C, s	15	100	AASHTO T 72
Particle charge test	Positive ^b		AASHTO T 59
Residue, %	60	--	AASHTO T 59
Test on Residue from Distillation	Min.	Max.	Test Method
Penetration, 25 C, 100 g, 5 s,	15	150	AASHTO T 49

^bIf the particle charge test is inconclusive, material having a maximum pH value of 6.7 will be acceptable.

2.2 Mineral Aggregate. Fine aggregates materials shall be in accordance with Section 1002.3 of the Standard Specifications; except as modified herein:

2.2.1 Noncarbonated Aggregate Requirement. The aggregate blend shall contain a minimum of 50 percent non-carbonate aggregate. The aggregate blend shall have an acid insoluble residue (AIR), MoDOT Test Method TM 76, of at least 85 percent insoluble residue.

2.2.2 Aggregate sources not meeting the absorption limits of Section 1002.3 shall be in accordance with the following lightweight aggregate requirements:

Property	Percent Limit	Maximum
Absorption, AASHTO T 85, percent, max	n/a	
Micro-Deval, AASHTO TP 58, percent, max	20	
Los Angeles Abrasion for Lightweight Aggregate, MoDOT Test Method TM 78, percent, max	50	

2.2.3 Aggregate Gradation Requirement. The aggregate blend shall have a 100 % of the material passing the No. 8 (2.36 mm) sieve. For spraying applications, the following gradation shall be used:

Sieve	Percent Passing
No. 8 (2.36 mm)	100
No. 16 (1.18 mm)	80-100
No. 30 (600 µm)	75-100
No. 50 (300 µm)	50-85
No. 100 (150 µm)	40-65
No. 200 (75 µm)	25-65

2.3 Water. Water shall be potable and free of harmful soluble salts.

2.4 Additives. Any other material added to the mixture or to any of the component materials shall be listed in the job mix formula with the product certifications.

2.5 Mix Design. The mix design that lists the specific materials to be used on the project shall be submitted to the engineer at least 30 days before the surface sealant treatment work commences. The mixture shall contain a minimum of 25% aggregate by weight of wet mixture and shall meet the following requirements:

	Min.	Max.	Test Method
Maximum Wet-Track Abrasion Loss (3 day soak), grams per square feet.	--	7.5 gr/ft ²	TB 100 (ISSA) Modified
Asphalt Content by Ignition Method, percent	30%	--	AASHTO T-308-08 ^c

^cThis method is modified to account for a fine emulsion mixture.

3.0 Construction Requirements. The surface sealing mixture may be mixed and applied either on the roadway in accordance with Section 413.10.4 (Equipment for Microsurfacing) or batched at a central plant and applied through mobile distribution equipment as described herein.

3.1 Mixing Equipment. All materials shall be thoroughly mixed as to produce a homogenous surface treatment. Individual volume or weight controls for proportioning each material in the mix shall be provided. Materials shall be added by a calibrated controlled device capable of monitoring the amount of material used at the time.

3.2 Distribution Equipment. If the mix is to be applied by spraying applications, the Distributor shall be equipped with a full sweep agitation system, a pumping system designed to handle fine aggregate mixes, and sufficient power to operate the full spray system and the agitation system at the same time. The Distribution equipment shall be equipped with a monitoring system that ensures the even distribution of material and measures the application rate of the mix.

3.3 Storage Tanks. If the mix is being delivered from a central mixing plant, then a job site storage tank shall have the minimum capacity of the entire transport load. The storage tank shall have an internal full sweep mixing system having a mixing capability of providing a homogenous mix representing the mix design at any given location within the tank.

3.4 Environmental Protection. The contractor shall comply with all federal, state, and local laws and regulations controlling pollution of the environment.

3.5 Weather Limitations. Bituminous material shall not be placed on any wet surface or when the ambient temperature or the temperature of the pavement on which it is to be placed is below 60^o F. Temperatures shall be obtained in accordance with MoDOT Test Method TM 20.

3.6 Surface Preparation. The surface shall be thoroughly cleaned immediately prior to placing the surface treatment.

3.7 Dilution. The bituminous material shall not be diluted in the field with water or other additives except as approved by the manufacturer.

3.8 Placement. The target application rate per pass based upon an undiluted bituminous material will be shown on the plans. The actual application rate may be adjusted based upon the existing pavement surface condition, recommendations of the polymer modified emulsion manufacturer, and the approval of the engineer. Placement of the mix may be permitted in multiple passes at the election of the contractor. Contractor shall provide a mat ensuring total coverage and especially free of voids and pit holes.

3.9 Opening to Traffic. After the sealant application, the roadway shall remain closed until the surface is tack-free and capable of being open to traffic without tracking.

3.10 Basis of Acceptance. The finished surface sealant treatment shall be evaluated by the engineer based on the following criteria. Any of the following may be grounds for stopping production and rejection of the treatment.

- (a) The presence of loose aggregate or synthetic materials that may cause damage to travelling vehicles.
- (b) The presence of dust that impairs visibility or is environmentally unacceptable.
- (c) A final surface that is failing due to lack of coverage, delaminating, or failures within the treatment.

4.0 Method of Measurement. Final measurement of the surface treatment will not be made except for authorized changes during construction, or where appreciable errors are found in the contract quantity. Where required, measurement of the surface treatment, complete in place, will be made to the nearest square yard. The revision or correction will be computed and added to or deducted from the contract quantity.

5.0 Basis of Payment. The accepted quantity of surface treatment, in place, will be paid for at the contract unit price for Item No. 409-99.05, Surface Sealing Treatment, per square yard. No separate payment will be made for any additional construction methods or processes.

Q. PROTECTION OF THE BNSF RAILWAY INTERESTS - St. Joseph Sub DOT# 079 381M MP 6.22 and 079 380F MP 6.18.

1.0 The right of way of the BNSF Railway Company, herein called "Railroad", is located within the limits of this project. However, this project has been developed with the specific intention that no involvement with the Railroad's facilities, traffic or right of way is required for the performance of the contractual work herein. The work to be performed near the Railroad's right of way shall not interfere with the Railroad's operations or facilities. Under these circumstances, the requirements of Sec 104.12.3, Sec 104.12.8 through 104.12.10.5 (inclusive), and Sec 107.13.4 shall not apply.

2.0 Should the contactor violate this condition of no railroad involvement, all terms and conditions of the interaction with the Railroad shall be solely between the Railroad and the contractor.

R. PAVEMENT MARKING LOG

1.0 Description. The contractor shall log the locations of existing pavement marking prior to any construction operations that may affect the existing pavement marking. The log shall contain all existing pavement marking and shall include center stripes, no passing stripes, lane lines, turn arrows, hash bars, cross walks, and stop bars. The contractor shall provide a copy of the existing pavement marking log to the engineer. The contractor shall place the new pavement marking at the same locations as the existing pavement marking, unless otherwise directed by the engineer or shown on the plans.

2.0 Basis of Payment. No direct payment will be made for logging of existing pavement marking.

S. DISPOSITION OF EXISTING SIGNS

1.0 Signs to be removed and relocated. The Contractor will be responsible for the removal and storage of any existing signs that are to be relocated whether they are ground mounted or overhead. If any signs are damaged during removal or damaged during storage due to the Contractor's negligence, he shall be responsible for replacing them at no additional cost to the Commission.

2.0 Signs to be salvaged. The Contractor will be required to remove State owned sign faces and/or posts identified on the plans. All State owned sign faces and/or posts that are removed as part of this project that are considered salvageable by the Engineer shall be taken to MoDOT's Sign Shop located at 3050 NE Independence Avenue, Lee's Summit, Missouri 64064.

The Contractor shall notify the MoDOT Sign Shop before deliveries are made. The phone number the contractor needs to call to notify the Sign Shop is 816-622-0504.

2.1 Sign faces shall be broken down into no larger than 8-foot by variable length sections. Signs shall be stacked neatly in bins provided by MoDOT's Sign Shop, under the supervision of MoDOT personnel, during normal working hours. All other signs shall be removed and disposed of by the Contractor.

3.0 Payment. No direct payment shall be made for the cost associated with removing, storage and transporting or disposing of signs as shown on the plans, or as directed by the Engineer.

T. HIGH TENSION SOCKETED SAFETY FENCE, TL-3

1.0 Description. This work shall consist of all labor, equipment, and materials to install a TL-3, high tension, socketed guard cable system, on slopes 6:1 or flatter including all hardware and appurtenances as shown on the plans or as directed by the engineer. The guard cable system shall be approved by the Federal Highway Administration and also be in accordance with

NCRHP 350, Test Level 3. Test Level 3 criteria acceptable products for use as a guard cable system are included in the list of pre-qualified products displayed on MoDOT's website. Acceptable products shall include a socketed line post system with galvanized high-tension cables and anchorages. The guard cable system shall be constructed as shown on the plans, with a maximum deflection of 9 feet.

2.0 Construction Requirements. A 'run' of guardcable, for the purposes of this provision, will be considered to consist of a length of finished cable assembly installed along a series of line posts and terminating at anchor assemblies on each end of the installation. Guardcable runs depicted in the plans vary in length to provide for logical or convenient end anchor locations along the project limits, provided installation conforms to manufacturer's specifications. Partial acceptance of completed guardcable runs may be performed in accordance with specifications included elsewhere in these provisions. Line posts shall be provided and installed in accordance with the manufacture's shop drawings and shall be plumb. Post spacing shall not exceed 20'.

2.1 Anchor Assemblies. An anchor assembly as specified in the manufacturer's shop drawings shall be constructed at each end of a guard cable run. The anchor assembly shall be approved by the Federal Highway Administration and also be in accordance with NCHRP 350 Test Level 3 Criteria. Anchors shall be constructed on firm, stable, undisturbed soil to the minimum dimension shown on the shop drawings. Anchor bolts and anchor post slip bases shall be firmly held in position at the top by templates during concrete replacement. Backfill shall be thoroughly compacted with mechanical tampers with care taken to prevent damage to the finished concrete. Backfill shall be brought up level with the finished grade line.

2.2 Cable. The galvanized wire rope shall be $\frac{3}{4}$ " pre-stressed 3 x 7 construction as approved by the Federal Highway Administration during the system's acceptance testing. Threaded terminals (wedge or swaged type) shall be furnished. Swaged terminals may be shop- or field-swaged. Threaded terminals shall be right hand (RH) or left hand (LH) threaded M 24 x 3 pitch to ANSI B 1.13 M. The body of the threaded terminal shall provide a minimum of 5.9" of wire rope penetration depth. Threaded terminals shall be galvanized after threading to ASTM A 151. Turnbuckle or rigging screws shall be of the size and shape shown in the manufacturer's shop drawings. Rigging screws shall be of a solid or closed body type with two inspection holes to determine threaded rope terminal penetration. Rigging screws shall be galvanized to ASTM A 153 after threading.

2.3 Cable Tensioning. The cable height above ground shall be in accordance with the manufacturer's shop drawings. The cable shall be tensioned immediately after initial installation. Tension shall be rechecked and adjusted, if necessary, three to five days after initial tensioning on cable system sections for runs greater than 2500 feet. A tension log form shall be completed showing the time, date, location, ambient temperature and final tension reading, signed by the person performing the tensioning, and furnished to the engineer upon completion of the work. This form shall also include the system manufacturer's recommended tension chart.

2.4 Delineators. Delineator spacing and reflector colors shall be in accordance with Section 606.10.

3.0 Method of Measurement. Measurement of the guard cable will be made from center of line posts, totaled to the nearest linear foot.

3.1 Anchor Assemblies. Measurement of anchor assemblies will be made per each.

4.0 Basis of Payment. The accepted quantities of guard cable and anchor assemblies will be paid for at the contract unit price with Item No. 606-99.03 High Tension Socketed Safety Fence, TL-3 (per linear foot), and Item No. 606-99.02 Safety Fence Anchor Assembly (per each). No direct payment will be made for delineators, setting post in rock or backfilling around the anchor assemblies.

U. PAVEMENT FOR VEGETATIVE BARRIER

1.0 Description. This work shall consist of constructing a 6' wide asphalt pavement strip at a compacted thickness of 3 inches as specified in the contract plans. Placement shall be in accordance with plan.

1.1 Prior to paving the area shall be prepared and compacted in accordance with Sections 203.5 and 209.

1.2 A commercial mix of Asphalt will be allowed.

1.3 The area beyond the limits of the Pavement for Vegetative Barrier outside where the ground will be disturbed should be sloped back to meet existing slope of the median.

2.0 Method of Measurement. Pavement for Vegetative Barrier shall be measured in square yards as constructed.

3.0 Basis of Payment. Payment for Vegetative Barrier including all labor and materials shall be paid at the unit price for Pavement for Vegetative Barrier, item number 401-99.05, per square yard. Linear grading, at locations specified in the typical section, shall be paid at the unit price for Linear Grading Class 1, item number 207-10.00, per station of median distance.

V. REMOVAL OF IMPROVEMENTS – EXCESS PAVEMENT MATERIAL

1.0 Description. This work shall consist of saw-cutting along the edges of the median shoulders, and removing and disposing of the excess pavement material, of varying depth, as shown on the plans, and in accordance with Section 202.3, in order to address edge drop-off problems. Material shall be disposed of off the Right of Way.

2.0 Basis of Payment. Payment for saw-cutting, and removing and disposing of the excess pavement material shall considered fully covered by the unit price for Item No. 202-20.10, Removal of Improvements, Lump Sum.

W. FERTILIZING, SEEDING, AND MULCHING

1.0 In accordance with Section 801, 802 and 805, the following shall be applied at the rate specified:

<u>Warm Season Seeding Mixture</u>	<u>lbs Pure Live Seed / Acre</u>
Buffalo Grass	125 lbs/acre
Turf Type Fescue	50 lbs / acre
<u>Oats</u>	<u>50 lb / acre</u>
Total	225 lbs / acre

1.1 In accordance with Section 801 of the Standard Specifications, the Contractor shall apply the following to the appropriate areas at the rates specified of application of soil neutralization and commercial fertilizer for this project.

<u>Item</u>	<u>Warm Season Rate</u>
Nitrogen	100 lbs / acre
Phosphorous	80 lbs / acre
Potash	80 lbs / acre
Lime	500 lbs / acre
Mulch	Type 4 Rural

1.2 All of the disturbed areas throughout the project limits shall be fertilized, seeded, and mulched and as directed by the engineer. Vegetative mulch shall be secured from movement by mulch overspray.

2.0 Basis of Payment. All accepted work and materials for seeding, fertilizing and mulching shall be considered included in and completely paid for by the contract unit price for Item No. 805-20.00A, Seeding – Warm Season Mixtures, per acre.

JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)

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

- A. General
- B. Contract Liquidated Damages
- C. Work Zone Traffic Management Plan
- D. **Order of Work**
- E. Supplemental Revisions
- F. Project Contact for Contractor/Bidder Questions
- G. Utilities
- H. Emergency Provisions and Incident Management
- I. Liquidated Damages for Winter Months
- J. Cooperation between Contractors
- K. Contrast Pavement Markings
- L. Contractor Retained Guardrail
- M. Quality Management
- N. Safety Management Plan
- O. Pavement Marking Log
- P. Polymer Modified Asphalt Emulsion - Tack Coat
- Q. Sequential Flashing Warning Lights
- R. Rock Blanket Slope Protection
- S. Modified Type A Barrier
- T. Shoulder Grading
- U. Disposition of Existing Signing
- V. Optional Temporary Pavement Marking
- W. **Liquidated Damages for Bridges A1687 and A1688**
- X. **Liquidated Damages for Bridges A22823 and A2282**
- Y. **Liquidated Damages for Work Zone Delay**

 **REVISED**

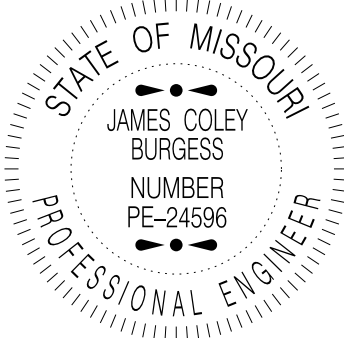
 **ADDED**

 **ADDED**

 **ADDED**

ADDITIONAL INFORMATION

Asbestos Survey Report

 <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</p>
	<p>If a seal is present on this sheet, JSP's have been electronically sealed and dated.</p>
	<p>JOB NUMBER: J412374 PLATTE COUNTY, MO DATE PREPARED: 12/17/13</p>
	<p>ADDENDUM DATE: <i>R002 January 22, 2014</i></p>
<p>Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: A-VY</p>	

JOB SPECIAL PROVISIONS
(ROADWAY)

A. GENERAL - FEDERAL JSP-09-02A

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 "Bidding". 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 "Business"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to October 2009 Missouri Std. Plans
For Highway Construction

These supplemental bidding documents contain all current revisions to the bound printed 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

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 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:	April 7, 2014
Completion Date (I-635 work):	October, 31 2014
Completion Date (I-29 work):	October, 30 2015

2.1 Calendar Days. The count of calendar days will begin on the date the contractor starts any construction operations on the project.

Job Number	Calendar Days
J4I2374, J4I2353 & J4I3020C	(I-635 work) 161
J4I2374	(I-29 work) 170

3.0 Liquidated Damages for Contract Administrative Costs. Should the contractor fail to complete the work on I-635 on or before the 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 the amount of **\$1,500.00** per calendar day for each full calendar day that the work is not fully completed on I-635. Should the contractor fail to complete the work on I-29 on or before the 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 the amount of **\$1,500.00** per calendar day for each full calendar day that the work is not fully completed on I-29. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the above specified 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 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 4.1. These damages are in addition to the contract administrative damages and any other damages as specified elsewhere in this contract.

4.1 Road User Costs.

Job Number		Road User Cost
J4I2353 & J4I3020C	(I-635 work)	\$9,800.00
J4I2374	(I-29 work)	\$11,400.00

C. WORK ZONE TRAFFIC MANAGEMENT PLAN

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.

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, hours traffic control will be in place, and work hours.

2.2 The contractor shall notify the engineer prior to lane closures or shifting traffic onto detours.

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.

2.5.1 Traffic Delay. The contractor shall be responsible for maintaining the existing traffic flow through the job site during construction. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, then the contractor shall review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent the queues from occurring again.

2.5.2 Traffic Safety.

2.5.2.1 Where traffic queues routinely extend to within 1000 feet (300 m) of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet (150 m) 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.

2.5.2.2 When a traffic queue extends to within 1000 feet (300 m) of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet (150 m) of the ROAD WORK AHEAD, or similar, sign on an undivided highway due to non-recurring congestion, 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 (300 m) and no more than 0.5 mile (0.8 km) in advance of the end of the traffic queue on divided highways and no less than 500 feet (150 m) and no more than 0.5 mile (0.8 km) in advance of the end of the traffic queue on undivided highways.

3.0 Detours and Lane Closures.

3.1 The contractor shall provide changeable message signs notifying motorists of future traffic disruption and possible traffic delays one week before traffic is shifted to a detour or prior to lane closures. The changeable message sign shall be installed at a location as approved or directed by the engineer.

3.2 At least two thru lanes per direction of traffic on I-29 and I-635 shall be maintained at all times except for brief intervals of time required when lane closure shifts occur and/or the movement of the contractor's equipment will seriously hinder the safe movement of traffic and in locations specifically designated in the traffic control plans. Periods during which the contractor will be allowed to close more than one thru lane of traffic or halt traffic will be as designated by the engineer.

3.3 Based on the data in the table below the contractors operations will be restricted accordingly unless it can be successfully demonstrated that their operations can be performed without a 15 minute queue in traffic. It shall be the responsibility of the engineer to determine if the work hours listed below may be modified. **(Note: the table below does not apply to bridge work behind barrier or lane closures needed to facilitate bridge work behind barrier)**

Lane Closure Restrictions:

Monday through Friday

I-29 NB/SB at Bridge **A2282** (Route D) 1 lane closed 7:00 am to 8:00 pm

I-29 NB at Bridge **A1746** (CST NW112th St) 1 lane closed 4:00 pm to 7:00 pm, 2 lanes closed 6:00 am to 10:00 pm

I-29 SB at Bridge **A1746** (CST NW112th St) 1 lane closed no work hour restrictions, 2 lanes closed 6:00 am to 11:00 pm

I-29 NB at Bridge **A2283** (CST Tiffany Springs Pkwy) 1 lane closed 4:00 pm to 7:00 pm, 2 lanes closed 6:00 am to 10:00 pm

I-29 SB at Bridge **A2283** (CST Tiffany Springs Pkwy) 1 lane closed no work hour restrictions, 2 lanes closed 6:00 am to 11:00 pm

I-29 NB at Bridge **A1747** (CST Barry Rd) 1 lane closed 8:00 am to 10:00 am and 12:00 pm to 8:00 pm, 2 lanes closed 5:00 am to 11:00 pm

I-29 SB at Bridge **A1747** (CST Barry Rd) 1 lane closed 5:00 am to 9:00 am, 2 lanes closed 5:00 am to 11:00 pm

I-29 NB at Bridge **A1595** (CST NW 72nd St) 1 lane closed 7:00 am to 10:00 am and 12:00 pm to 8:00 pm, 2 lanes closed 5:00 am to 11:00 pm

I-29 SB at Bridge **A1595** (CST NW 72nd St) 1 lane closed 5:00 am to 9:00 am and 4:00 pm to 7:00 pm and 2 lanes closed 5:00 am to 12:00 am midnight

I-29 NB at Bridge **A1159** (MO45) 1 lane closed 8:00 am to 10:00 am and 12:00 pm noon to 8:00 pm 2 lanes closed 5:00 am to 11:00 pm

I-29 SB at Bridge **A1159** (MO45) 1 lane closed 5:00 am to 8:00 pm 2 lanes closed 5:00 am to 12:00 midnight

I-635 NB 1 lane closed no work hour restrictions, 2 lanes closed 2:00 pm to 6:00 pm

I-635 SB 1 lane closed 6:00 am to 9:00 am and 4:00 pm to 7:00 pm

Lane closures for weekends are as determined by the engineer.

4.0 Existing Signing.

4.1 The contractor shall cover any existing signs on adjacent or advance state routes or city streets that conflict with the traffic management plan, as may or may not be identified in the traffic control sheets. The method to cover any existing signs shall be as approved by the engineer.

4.2 The contractor shall be responsible for any damage related to covering, removing, or installation of existing signs.

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

D. ORDER OF WORK

1.0 The contractor is advised that following order of work shall be followed:

- A. All work on I-635 shall be prosecuted first. (Said work includes bridge rehabilitation work in job number J412374, including resurfacing and guardrail and all erosion control work shown in J413020C.) The resurfacing work in J4P2353 shall be performed after all bridge work on I-635 is complete.
- B. The contractor shall submit a construction sequencing plan and schedule to the engineer, for his approval, before erosion control work in job number J413020C and guardrail work shown in in J412353 are to begin.
- C. The contractor shall complete ~~southbound northbound~~ I-29 bridge work first before prosecuting the work on the I-29 ~~northbound southbound~~ bridges.
- D. Traffic control quantities for both interstates are paid for separately. The contractor is not required to work on both interstates simultaneously.

△ **2** REVISED

2.0 Basis of Payment. No direct pay will be made for compliance with this provision.

E. SUPPLEMENTAL REVISIONS JSP-09-01M

Insert Sec 109.15, Sec 109.16 and Sec 109.17, subsequent section renumbered accordingly:

109.15 Seal Coat Price Index. Adjustments will be made to the payments due the contractor for Seal Coat placed in accordance with Section 409 of the Standard Specifications when the quantity exceeds 50,000 square yards for an individual project or any number of projects in the contract combination. Adjustments will be calculated in accordance with Asphalt Cement Price Index of the General Provisions, except as defined herein.

109.15.1 Basis of Payment. To determine the adjustment for any material specified in this provision the following formula will be used.

$$A = B \times (2.01/2000) \times (D - E)$$

Where: A = adjustment for Seal Coat placed during the index period
B = square yards of seal coat placed during the index period
D = average index price at the beginning of the period

E = average index price at the time of bid

109.15.2 Optional. This provision is optional. If the bidder wishes to be bound by this provision, the bidder shall execute the acceptance form in the Bid for the Asphalt Cement Price Index. Acceptance of this provision will apply to both the Asphalt Cement Price Index and Seal Coat Price Index. Failure by the bidder to execute the acceptance form will be interpreted to mean election to not participate in the Asphalt Cement Price Index or Seal Coat Price Index.

109.16 Asphalt Underseal Price Index. Adjustments will be made to the payments due the contractor for Asphalt underseal placed in accordance with Section 625 of the Standard Specifications when the quantity exceeds 10,000 gallons for an individual project or any number of projects in the contract combination. Adjustments will be calculated in accordance with Asphalt Cement Price Index of the General Provisions, except as defined herein.

109.16.1 Basis of Payment. To determine the adjustment for any material specified in this provision the following formula will be used.

$$A = B \times (8.66/2000) \times (D - E)$$

Where: A = adjustment for asphalt underseal placed during the index period
B = gallons of asphalt underseal placed during the index period
D = average index price at the beginning of the period
E = average index price at the time of bid
(use average specific gravity of 1.04 for underseal)

109.16.2 Optional. This provision is optional. If the bidder wishes to be bound by this provision, the bidder shall execute the acceptance form in the Bid for the Seal Coat Price Index. Failure by the bidder to execute the acceptance form will be interpreted to mean election to not participate in the Seal Coat Price Index.

109.17 Polymer Modified Emulsion Membrane Price Index. Adjustments will be made to the payments due the contractor for Polymer Modified Emulsion Membrane placed in accordance with Sec 413.30 when the quantity exceeds 5,000 square yards. Adjustment will be calculated in accordance with the Supplemental Asphalt Price Adjustment except as defined herein.

109.17.1 Basis of Payment. To determine the adjustment for any material specified in this provision the following formula will be used.

$$A=B \times (1.20/2000) \times (D - E)$$

Where: A = adjustment for membrane placed during the index period
B = square yards of membrane placed during the index period
D = average index price at the beginning of the period
E = average index price at time of bid

109.17.2 Optional. This provision is optional. If the bidder wishes to be bound by the provision, the bidder shall execute the acceptance form in the Bid for Polymer Modified Emulsion Membrane Price Index. Failure by the bidder to execute the acceptance form will be interpreted to mean election not to participate in the Polymer Modified Emulsion Membrane Price Index.

Delete Sec 407 in its entirety and substitute the following:

407.1 Description. This work shall consist of preparing and treating an existing bituminous or concrete surface with bituminous material, in accordance with these specifications.

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

Item	Section
Emulsified Asphalt or PG Liquid Asphalt	1015

407.3 Equipment. The contractor shall provide a system for heating and applying the bituminous material. The system shall be designed, equipped, maintained and operated such that emulsified asphalt or liquid asphalt, at even heat, may be applied uniformly on variable widths of surface up to 15 feet with uniform pressure and an allowable variation from any specified rate of ± 0.01 gallon per square yard. The system shall include a calibrated tank and a thermometer for measuring temperature of tank contents. The system shall be equipped with instrumentation that continuously verifies application rates. The calibration of the system shall be approved by the engineer prior to use, and the contractor shall furnish all equipment, material and assistance if calibration is required.

407.4 Construction Requirements.

407.4.1 Preparation of Surface. The existing surface shall be free of all dust, loose material, grease or other foreign material at the time the tack is applied. Any excess bituminous surface mixture or bituminous joint material will be removed by MoDOT without cost to the contractor before the tack is applied.

407.4.2 Application. Asphalt emulsion or PG liquid asphalt shall be applied uniformly with a pressure distributor at the minimum rates indicated in the following table. No dilution of the emulsified asphalt material shall be allowed. The tack coat material shall be heated at the time of application to a temperature in accordance with Sec 1015. The tack coat shall be properly cured and the tacked surface shall be clean of all dirt before the next course is placed.

Tack Coat Application Rates	
Surface Type	Minimum Application Rate (gal/sq yd)
New Asphalt Pavement	0.05
Existing Asphalt or Concrete Pavement	0.08

407.4.3 Tack. The tack coat shall be applied in such a manner as to cause the least inconvenience to traffic and to permit one-way traffic without tracking of asphalt emulsion. All exposed tack coat shall be covered with bituminous mixture prior to opening to traffic.

407.5 Method of Measurement. Measurement of asphalt emulsion to the nearest 10 gallons will be made in accordance with Sec 1015.

407.6 Basis of Payment. The accepted quantity of tack coat will be paid for at the contract unit price.

Delete Sec 1015.20.5.1 and substitute the following:

1015.20.5.1 Polymer Modified Asphalt Emulsion – Seal Coat. Bituminous material for polymer modified asphalt shall be in accordance with the following:

Polymer Modified Asphalt Emulsion				
Test ^a	CRS-2P		EA-90P	
	Min	Max	Min	Max
Viscosity, SSF @ 50 C	100	400	100	400
Storage Stability Test ^b , 24 hour, percent	----	1	----	1
Classification Test	Pass	----	----	----
Particle Charge Test	Positive	----	----	----
Sieve Test, percent	----	0.3	----	0.3
Demulsibility, 0.02 N CaCl ₂ , percent	----	----	30	----
Distillation:				
Oil distillate by volume of emulsion, percent	----	3	----	3
Residue from distillation ^c , percent	65	----	65	----
Tests on Residue from Distillation:				
Penetration, 25 C, 100 g, 5 sec	100	200	100	200
Ductility, 4 C, 5 cm/minute, cm	30	----	25	----
Ash ^d , percent	----	1	----	1
Float Test at 60 C, sec	----	----	1200	----
Elastic Recovery ^e , percent	58	----	58	----

^aAll tests shall be performed in accordance with AASHTO T 59 except as noted.

^bIn addition to AASHTO T 59, upon examination of the test cylinder, and after standing undisturbed for 24 hours, the surface shall show no appreciable white, milky colored substance and shall be a homogeneous brown color throughout.

^cAASHTO T 59 shall be modified to maintain a 399 F ± 10 F maximum temperature for 15 minutes.

^dPercent ash shall be determined in accordance with AASHTO T 111, *Ash in Bituminous Material*.

^eElastic recovery shall be determined as follows. Condition the ductilometer and samples to be treated at 50 F. Prepare the brass plate, mold and briquet specimen in accordance with AASHTO T 51. Keep the specimen at the specified test temperature of 50 F for 85 to 95 minutes. Immediately after conditioning, place the specimen in the ductilometer and proceed to elongate the sample to 20 cm at a rate of pull of 5 cm/min. After the 20 cm elongation has been reached, stop the ductilometer and hold the sample in the elongated position for 5 minutes. After 5 minutes, clip the sample approximately in half by means of scissors or other suitable cutting devices. Let the sample remain in the ductilometer in an undisturbed condition for one hour. At the end of this time period, retract the half sample specimen until the two broken ends touch. At this point note the elongation (x) in cm. Calculate the percent recovery by the following formula:

$$\% \text{ Recovery} = \frac{20 - X}{20} \times 100$$

Polymer Modified Asphalt Emulsion		
Test ^a	CHFRS-2P	
	Min.	Max.
Viscosity, SFS @ 50 C	100	400
Storage Stability Test, 24 hour, percent	---	1.0
Demulsibility, 35 ml 0.8% dioctyl sodium sulfosuccinate, percent	60	---
Sieve Test, percent	---	0.1 0
Particle Charge Test	Positive	
Distillation ^b		
Oil Distillate, by volume of emulsion, percent	---	0.5
Residue from distillation, percent	65	---
Tests on Residue from Distillation:		
Polymer content, weight, percent (solids based)	3.0	---
Softening Point, C	54	---
Float test at 60 C, s	1800	---
Penetration, 25 C, 100 g, 5 s	80	130
Viscosity @ 60 C, Poise	1300	---
Solubility in Trichloroethylene, percent	95	---
Elastic Recovery ^c @ 10 C, percent	65	---

^aAll tests shall be performed in accordance with AASHTO T-59 except as noted.

^bAASHTO T59 shall be modified to maintain a 177 ± 5 C maximum temperature to be held for 20 minutes. Complete the total distillation in 60 ± 5 minutes from the first application of heat.

^cElastic recovery shall be determined as follows. Condition the ductilometer and samples to be treated at 10 C. Prepare the brass plate, mold, and briquet specimen in accordance with AASHTO T 51. Keep the specimen at the specified test temperature of 10 C for 85 to 95 minutes. Immediately after conditioning, place the specimen in the ductilometer and proceed to elongate the sample to 20 cm at a rate of pull of 5 cm/min. After the 20 cm elongation has been reached, stop the ductilometer and hold the sample in the elongated position for 5 minutes. After the 5 minutes, clip the sample approximately in half by means of scissors or other suitable cutting devices. Let the sample remain in the ductilometer in an undisturbed condition for one hour. At the end of this time period, retract the half sample specimen until the two broken ends touch. At this point note the elongation recovery (X) in cm. Calculate the percent recovery by the following formula:

$$\% \text{ Recovery} = \frac{20 - X}{20} \times 100$$

Amend Sec 1015.20.5.1.1 to include the following:

1015.20.5.1.1 Polymer Modified Asphalt Emulsion – Tack Coat. Bituminous material for polymer modified asphalt shall be in accordance with the following:

Slow Setting Polymer Modified Asphalt Emulsion^a					
		SS-1HP		CSS-1HP	
Test on Emulsion	Method	Min	Max	Min	Max
Viscosity, Saybolt Furol @ 25°C (77°F), s	AASHTO T 59	20	100	20	100
Particle Charge Test		Negative		Positive	
Storage Stability Test ^b , 24 hr, percent	AASHTO T 59	--	1	--	1
Sieve Test, percent	AASHTO T 59	--	0.50	--	0.50
Residue by Distillation ^c , percent	AASHTO T 59	57		57	
Oil Distillate by Distillation, percent	AASHTO T 59	--	--	--	--
Test on Residue from Distillation					
Penetration 25°C, 100 g, 5 s	AASHTO T 49	40	90	40	90
Elastic Recovery ^d , 20 cm, 5 cm/min, 60 min, %	AASHTO T 301	30	--	30	--
Solubility in Trichloroethylene ^e , %	AASHTO T 44	97.5	--	97.5	--

^a The emulsified asphalt shall be in accordance with Section 1015.20.5 of the 2011 Missouri Standard Specifications for Highway Construction, except as indicated above, and shall be modified with a styrene-butadiene diblock or triblock copolymer or a styrene butadiene rubber.

^b In addition to AASHTO T 59, upon examination of the test cylinder, and after standing undisturbed for 24 hours, the surface shall show no appreciable white, milky colored substance and shall be homogeneous brown color throughout. The storage stability test may be waved provided the asphalt emulsion storage tank at the project site has adequate provisions for circulating the entire contents of the tank, provided satisfactory field results are obtained.

^c AASHTO T 59 shall be modified to use a lower distillation temperature of 177° C (350° F).

^d AASHTO T 301 shall be modified to allow the residue to be obtained from distillation as long as the distillation temperature is modified as stated above. The test on residue shall be conducted at a temperature of 10° C (50° F).

^e In lieu of performing AASHTO T 44, AASHTO T 111, Ash in Bituminous Material, may be performed with a maximum allowable percent ash of 1.0 percent.

F. PROJECT CONTACT FOR CONTRACTOR/BIDDER QUESTIONS

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

Jim Burgess, Project Contact
District 4
600 NE Colbern Road
Lee's Summit, MO 64086
Telephone Number 816-622-2180
e-mail James.Burgess@modot.mo.gov

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

G. UTILITIES

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

<u>Utility Company</u>	<u>Known Required Adjustment</u>
Mr. Allen Ackland, PMP Supervising Engineer, Transmission Kansas City Power and Light Co. 4400 E. Front St. Kansas City, MO 64120 (816) 245-3753	None
Mr. Brian Cornish CenturyLink 5454 West 110th Street Overland Park, KS 66211 (913) 345-7524	None

1.1 The existence and approximate location of utility facilities known to exist, as shown on the plans, are based upon the best information available to the Commission at this time. This information is provided by the Commission "as-is" and the Commission expressly disclaims any representation or warranty as to the completeness, accuracy, or suitability of the information for any use. Reliance upon this information is done at the risk and peril of the user, and the Commission shall not be liable for any damages that may arise from any error in the information. It is, therefore, the responsibility of the contractor to verify the above listing information indicating existence, location and status of any facility. Such verification includes direct contact with the listed utilities.

1.2 The contractor agrees that any effects of the presence of the utilities, their relocation, contractor's coordination of work with the utilities and any delay in utility relocation shall not be compensable as a suspension of work, extra work, a change in the work, as a differing site condition or otherwise including but, without limitation, delay, impact, incidental or consequential damages. The contractor's sole remedy for the effects of the presence of utilities, delay in their relocation or any other effects shall be an excusable delay as provided in Section 105.7.3. The contractor waives, for itself, its subcontractors and suppliers the compensability of the presence of utilities, delay in their relocation and any cost to the contractor, it's subcontractors and suppliers in any claim or action arising out of or in relation to the work under the contract.

1.3 The contractor shall be solely responsible and liable for incidental and consequential damage to any utility facilities or interruption of the service caused by it or its subcontractors operation. The contractor shall hold and save harmless the Commission from damages to any utility facilities interruption of service by it or it's subcontractor's operation.

2.0 It shall be noted by the contractor that MoDOT is a member of Missouri One Call (800 Dig Rite). Some work on this project may be in the vicinity of MoDOT utility facilities, which includes but is not limited to traffic signal cables, highway lighting circuits, ITS cables, cathodic protection cables, etc. Prior to beginning work, the contractor shall request locates from Missouri One Call. The contractor shall also complete the Notice of Intent to Perform Work form located at the Missouri Department of Transportation website:

<http://www.modot.mo.gov/asp/intentToWork.shtml>

The contractor shall submit the form over the web (preferred method) or by fax to the numbers on the printed form. The notice must be submitted a minimum of 2 and a maximum of 10 working days prior to excavation just as Missouri One Call requires.

H. EMERGENCY PROVISIONS AND INCIDENT MANAGEMENT

1.0 The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from the police or other emergency agencies for incident management. In case of traffic accidents or the need for police to direct or restore traffic flow through the job site, the contractor shall notify police 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 police services, the following agencies may also be notified for accident or emergency situation within the project limits.

Missouri Highway Patrol (800-525-5555)	
City of Kansas City	City of Riverside
Fire: 816-513-0911	Fire: (816) 741-1191
Police: 816-234-5000)	Police: (816) 741-1501

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 police agency.

2.2 The contractor shall notify 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 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.

I. LIQUIDATED DAMAGES FOR WINTER MONTHS JSP-04-17

1.0 Description. Revise Sec 108.8.1.2 (a) and (b) and substitute the following for the project:

- (a) Liquidated damages will be assessed from December 15 to March 15
- (b) Liquidated damages will be assessed for Saturdays, Sundays and Holidays.

(c) Liquidated damages for winter months will not be assessed on I-29 under the following conditions:

1. No work is started on I-29 in calendar year 2014 (applies to 2014-2015 winter only)
2. Work in one direction of I-29 is completed and all lanes in both directions are open to traffic during the winter of 2014-2015.

J. COOPERATION BETWEEN CONTRACTORS

1.0 This contract is one of several projects essential to the overall improvements along I-635 and I-29. These projects include, but are not limited to:

- (1) I-29, Job No. J4P30961, Barry road to SB I-29 ramp extension.
- (2) Various on call repair contracts (e.g. Guardrail/Guardcable repair, pavement repair, etc.)

2.0 When necessary for proper prosecution of work, each contractor shall cooperate to permit the other access through the overlapping or adjacent work zones and cooperate to coordinate temporary traffic control measures.

K. CONTRAST PAVEMENT MARKINGS JSP 08-07A

1.0 Description. This work shall consist of furnishing and installing black contrasting pavement marking for intermittent markings (skips), dotted lines and solid intersection lane lines on concrete surfaces. This work shall be in accordance with Sec 620 and accompanying provisions except as modified herein

2.0 Material. The black contrast marking shall be compatible with the white pavement marking material specified in the plans.

3.0 Construction Requirements.

3.1 The Contrast markings shall be accomplished by placing the black pavement marking according to manufacturer's recommendations.

3.2 The white marking shall be centered within the black marking such that there will be a 1.5 inch border of black on both sides of the white marking. Tolerances for the width and length of the black and white markings shall be in accordance with Sec 620.2.4.2.

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

L. CONTRACTOR RETAINED GUARDRAIL JSP-04-11

1.0 Description. All guardrail removed from this project shall become the property of the Contractor and shall be disposed of in accordance with Sec 202.

2.0 Basis of Payment. All costs incurred for complying with this provision shall be considered completely covered by the contract unit price for Item No. 202-20.10, Removal of Improvements.

M. Quality Management (Version - 10/2013)

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

1.1 The contractor shall provide all Quality Control (QC) of the work and material. Contractor QC staff shall hold the primary responsibility for ensuring all work and material is in compliance with contract requirements. QC staff shall perform and document all inspection and testing. The QC inspectors and testers may be employed by the contractor, sub-contractor, or a qualified professional service hired by the contractor.

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

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

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

2.0 Quality Management Plan. The contractor shall develop, implement and maintain a Quality Management Plan (QMP) that will ensure the project quality meets or exceeds all contract requirements, and provides a record for acceptance of the work and material.

2.1 The QMP shall address all QC inspection and testing requirements of the work as described herein. A draft QMP shall be submitted to the Resident Engineer for review at least two weeks prior to the pre-construction conference.

2.2 Physical work on the project shall not begin prior to approval of the QMP by the engineer. The approved QMP shall be considered a contract document and any revisions to the QMP will require approval from the engineer.

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

- a) General organizational structure of the contractor's production and QC staff.
- b) Name, qualifications and job duties of the Quality Manager.

- c) A list of all certified QC testers who will perform QC duties on the project, including sub-contract work, and the areas of testing in which they are certified.
- d) A list of all QC inspectors who will perform inspection duties on the project, including sub-contract work, and the areas of inspection that they will be assigned.
- e) A Document Control Procedure for verifying documentation is accurate and complete as described in Section 3.
- f) A procedure describing QC Inspections as outlined in Section 4.
- g) A procedure describing QC Testing, as outlined in Section 5, including a job specific Inspection and Test Plan (ITP).
- h) A procedure describing Material Receiving as outlined in Section 6.
- i) A list of Hold Points as outlined in Section 8.
- j) A procedure for documenting and resolving Non-Conforming work as described in Section 9.
- k) A procedure for tracking revisions to the QMP.
- l) A list of any approved changes to the Standard Specifications or ITP, including a reference to the corresponding change order.
- m) Format for the Weekly Schedule and Work Plans as described in Section 10, including a list of activities that will require pre-activity meetings.

3.0 Project Documentation. The contractor shall establish a Document Control Procedure for producing and uploading the required Quality Management documents to a web-based electronic storage site provided by MoDOT (Microsoft SharePoint), or to an alternate storage site provided by the contractor and approved by the engineer. This process will allow efficient sharing of documents among authorized users. Any proposed alternate site must provide equal or better efficiency in document sharing as the MoDOT provided site. If an alternate site is utilized, upon completion of the project the contractor shall provide all files to the engineer on an approved electronic media.

3.1 The contractor shall utilize a file naming system that allows efficient location of documents. The file naming system for each folder should be shown in the QMP.

3.2 Documents (standard forms, reports, and checklists) referenced throughout this provision are considered the minimum documentation required. They shall be obtained from MoDOT at the following web address: <http://www.modot.org/quality> . The documents provided by MoDOT are required to be used in the original format, unless otherwise approved by the engineer. Contractor-altered versions may be allowed in some cases; however, many of these forms must remain in the original format in order to simplify data entry into SiteManager (MoDOT's internal project management system).

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

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

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

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

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

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

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

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

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

5.1 MoDOT will provide a standard ITP and the contractor shall modify it to include only the items of work in the contract, including adding any Job Special Provision items. The standard ITP is available on the MoDOT website at <http://www.modot.org/quality>. The contractor shall

not change the specifications, testing procedures, or the testing frequencies, from the standard ITP without approval by the engineer and issuance of a change order.

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

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

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

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

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

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

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

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

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

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

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

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

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

9.0 Non-Conforming Work. Non-conforming work is defined as work that does not meet the contract requirements. The contractor shall establish a procedure for identifying and resolving non-conforming work as well as tracking the status of the reports.

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

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

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

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

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

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

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

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

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

N. SAFETY PLAN

1.0 Description. This contractor shall submit to the engineer a project Safety Plan (SP) for all work performed by the contractor and all subcontractors. The purpose of the SP is to encourage and enable all work to be performed in the safest possible manner and that all parties involved are aware of their individual responsibility for safety on the jobsite.

1.1 The SP shall be completed by the contractor and provided to the engineer prior to the beginning of any construction activity or phase on the project.

1.2 The contractor shall designate a person to serve as Project Safety Manager (PSM). The PSM shall be responsible for implementing and overseeing the SP. The PSM is not required to be present on the project at all times, but must be available to address safety issues and needs.

1.3 The PSM shall make revisions to the SP as necessary. Any new project activities or phases shall be included in the SP prior to work beginning on that activity or phase.

1.4 An example Safety Plan is available at: www.modot.org/safetyplan

2.0 Emergency Preparedness. The SP shall outline and detail for all workers, the specific procedures and actions necessary to respond to a jobsite emergency and the measures taken to communicate these requirements to all workers.

2.1 The SP shall include a list of local emergency contacts including phone numbers. A copy of the emergency contact list shall be accessible to workers.

2.2 In the case where there is no cellular or land line phone service at the jobsite, the SP shall identify how to reach the nearest available phone service.

3.0 Project Safety Analysis. The SP should contain a basic Project Safety Analysis (PSA) that outlines the actions necessary to complete each activity or phase of the project. The SP shall include a general description of the primary activities or steps required to safely complete the project.

3.1 Each activity should also include a general description of the work involved along with the known risks associated with the activity. In addition the PSA should outline the controls for

those risks, including any Personal Protection Equipment (PPE) requirements for that activity or phase, and whether or not the activity or phase requires a specific safety meeting prior to beginning the activity or phase.

3.2 Submittal of the PSA for all activities or phases is not required with the initial submittal of the SP; however, the PSA for each activity or phase shall be completed prior to the beginning of that activity or phase.

4.0 Safety Meetings. The SP shall include the types of safety meetings that will be required of and conducted by the contractor.

5.0 Safety Training. The SP shall identify the required safety training provided to the contractor's personnel. The contractor shall require that the appropriate safety training for the contractor's personnel is completed prior to the beginning of work on each activity or phase.

5.1 The SP shall identify the recommended safety training needs and PPE for MoDOT employees who will be exposed to the work activities. MoDOT will provide safety training and PPE to MoDOT employees based on MoDOT safety policies.

6.0 Payment. There will be no direct payment for compliance with this Safety Plan provision.

O. PAVEMENT MARKING LOG

1.0 Description. The contractor shall log the locations of existing pavement marking prior to any construction operations that may affect the existing pavement marking. The log shall contain all existing pavement marking and shall include center stripes, no passing stripes, lane lines, turn arrows, hash bars, cross walks, and stop bars. The contractor shall provide a copy of the existing pavement marking log to the engineer. The contractor shall place the new pavement marking at the same locations as the existing pavement marking, unless otherwise directed by the engineer or shown on the plans. **Note: See J412353 for pavement marking modification on route I-635.**

2.0 Basis of Payment. No direct payment will be made for logging of existing pavement marking.

P. POLYMER MODIFIED ASPHALT EMULSION - TACK COAT

1.0 Description. A polymer modified asphalt emulsion shall be required for the tack coat material used on this project and shall be applied at the same rate as stated on the typical sections or as directed by the engineer.

2.0 Material. Bituminous material for polymer modified asphalt emulsion shall be in accordance with Sec 1015.

Q. SEQUENTIAL FLASHING WARNING LIGHTS

1.0 Description. This specification covers the furnishing, installation and maintenance of Sequential Flashing Warning Lights for use on trim-line channelizer devices within the work zone taper.

2.0 Material.

2.1 Warning lights shall be in accordance with the MUTCD and ITE's 'Purchase Specification for Flashing and Steady-burn Warning Lights' and shall be considered a lightweight light per FHWA letter WZ-54. Warning lights shall consist of a single unit (head and housing), employ LED technology, and be equipped with tamper-proof mounting hardware.

2.2 Sequential Flashing Warning Lights (SFWL) shall have an On/Off switch. SFWL shall be capable of communicating through wireless technology. SFWL shall be able to be placed in any order and provide sequential lighting through the taper. If individual SFWL are not operating, the remaining SFWL shall be capable of providing sequential lighting through the taper.

2.3 Certification and Acceptance. The manufacturer shall provide written certification the SFWL provided comply with the requirements of this specification. Acceptance of SFWL will be by certification and any tests deemed necessary by the department for compliance with this specification.

3.0 Construction Requirements. This work shall be in accordance with Sec 616 and standard plan 616.10, and shall include all maintenance, including repair or replacement of non-functioning units.

4.0 Method of Measurement. Final measurement will not be made, except for authorized changes during construction or where appreciable errors are found in the contract quantity. Where required, measurement of SFWL will be made per each. The revision or correction will be computed and added to or deducted from the contract quantity. Replacement units shall not be counted in the final measurement.

5.0 Basis of Payment. The accepted quantity of SFWL will be paid for at the contract unit price for Sequential Flashing Warning Lights, Item No. 616-10.55, per each.

R. ROCK BLANKET SLOPE PROTECTION

1.0 Description. The work under this item consists of furnishing and installing geotextile fabric and rock on the bridge abutment spill slopes as shown on the plans and as directed by the engineer.

Rock blanket shall be furnished and placed in accordance with the requirements of Sec 611.30 except as modified herein.

2.0 Materials. The material for rock blanket for the bridge abutment spill slopes shall be durable stone meeting the gradation requirements for Type 2 Rock Blanket. Broken concrete from the bridge decks and rubblized existing concrete slope protection will be accepted.

Geotextile fabric shall meet the requirements of Sec 1011, for Type 3, Erosion Control geotextile.

3.0 Construction Requirements. Geotextile fabric shall be furnished and placed in accordance with the requirements of Sec 624.

Rock blanket shall be furnished and placed in accordance with the requirements of Sec 611.30.

4.0 Basis of Payment.

4.1 Payment for furnishing rock blanket will be made at the contract unit price per cubic yard for item 611-30.20, "Furnish Type 2 Rock Blanket".

4.2 Payment for placing rock blanket will be made at the contract unit price per cubic yard for item 611-30.40, "Placing Type 2 Rock Blanket". Rubblized concrete slope protection will be paid for at the contract unit price for item 611-30.40, "Placing Type 2 Rock Blanket".

4.3 Payment for Type 3 Erosion Control Blanket shall be paid for at the contract unit price for bid item 806-41.22, "Type 3 Erosion Control Blanket"

S. MODIFIED TYPE A BARRIER

1.0 Description. This work shall consist of installing Modified Type A barrier as shown in the plans or as directed by the engineer.

2.0 Materials. Materials for Modified Type A Barrier shall be in conformance with Section 617.

3.0 Method of Measurement. Modified Type A Barrier will be measured to the nearest linear foot.

3.0 Basis of Payment. Payment for MODIFIED TYPE A BARRIER as described in this provision will be made at the contract unit price for pay item 617-99.03, MODIFIED TYPE A BARRIER, per linear foot.

T. SHOULDER GRADING

1.0 Description. This work shall consist of excavating and grading the existing shoulder to facilitate placement of shoulder pavement, as well as backfilling the shoulder and shaping the fore slope following placement of the shoulder pavement.

2.0 Construction Requirements. The shoulder shall be excavated and graded as shown on the typical section with minimal disturbance of the existing sub-grade and fore slope. Density shall be obtained from reasonable compactive efforts consisting of no less than three passes with a roller until no further visible compaction can be achieved, or by other methods approved by the engineer.

2.1 Following placement of the shoulder pavement, the shaping of the fore slope shall be done to backfill the shoulder edge as shown on the typical section.

2.2 It may be necessary to go outside the limits of the right of way to obtain additional material or to dispose of excess material. All costs for providing additional material or disposing of excess material shall be included in SHOULDER GRADING.

2.3 Included in this work is any pavement edge treatment that might be necessary in order to stay in compliance with the Standard Plans. The need for edge treatment is determined by the contractor's method of operations.

3.0 Method of Measurement. Final measurement will not be made except where appreciable errors are found in the contract quantity.

3.1 Where required, measurement will be made to the nearest 1/10 Station separately for the length of shoulder along each side of the roadway, measured along centerline of the traveled way and totaled to the nearest Station for the sum of all segments..

4.0 Basis of Payment. Payment for SHOULDER GRADING as described in this provision will be made at the contract unit price for pay item 212-99.09, MISC. SHOULDER GRADING, per station.

U. DISPOSITION OF EXISTING SIGNS

1.0 Signs to be removed and relocated. The Contractor will be responsible for the removal and storage of any existing signs that are to be relocated whether they are ground mounted or overhead. If any signs are damaged during removal or damaged during storage due to the Contractor's negligence, he shall be responsible for replacing them at no additional cost to the Commission.

2.0 Signs to be salvaged. The Contractor will be required to remove State owned sign faces and/or posts identified on the plans. All State owned sign faces and/or posts that are removed as part of this project that are considered salvageable by the Engineer shall be taken to MoDOT's Sign Shop located at 3050 NE Independence Avenue, Lee's Summit, Missouri 64064.

The Contractor shall notify MoDOT Sign Shop before deliveries are made. The phone number the contractor needs to call to notify the Sign Shop is 816-622-0405.

2.1 Sign faces shall be broken down into no larger than 8-foot by variable length sections. Signs shall be stacked neatly in bins provided by MoDOT's Sign Shop, under the supervision of MoDOT personnel, during normal working hours. All other signs shall be removed and disposed of by the Contractor.

3.0 Payment. No direct payment shall be made for the cost associated with removing, storage and transporting or disposing of signs as shown on the plans, or as directed by the Engineer.

V. OPTIONAL TEMPORARY PAVEMENT MARKING

1.0 Description. This work shall consist of installing and maintaining temporary pavement marking on the project as required.

2.0 Materials. The contractor can use either temporary marking tape or temporary marking paint that meets the following: Materials for Optional Temporary Pavement Marking shall be in conformance with Section 1048 with the exception of 1048.5.

3.0 Construction Requirements. The initial temporary pavement marking shall have a minimum retroreflectivity of 150 mcd/m²/lux and shall be maintained at a minimum retroreflectivity of 100/mcd/m²/lux with at least 95% of the stripe present. If retroreflectivity of the pavement marking is found to be deficient the contractor shall bring the temporary pavement marking back into compliance.

3.1 Temporary Pavement Marking Removal. Temporary pavement marking shall be completely removed to the satisfaction of the engineer with minimal damage to the pavement. The pavement surface shall not be left scarred with an image that might mislead traffic. Any excess damage or scarring of the pavement shall be repaired at the contractor's expense. It shall be the contractor's responsibility to determine what type of material can be removed without damage or scarring.

3.2 Temporary Raised Pavement Markers (RPM's) shall only be used for resurfacing work. No direct payment will be made for Temporary Raised Pavement Markers used for resurfacing.

4.0 Method of Measurement. Measurement for Optional Temporary Pavement Marking will be made to the nearest linear foot.

5.0 Basis of Payment. Payment for OPTIONAL TEMPORARY PAVEMENT MARKING as described in this provision will be made at the contract unit price for pay item 617-99.03, TEMPORARY PAVEMENT MARKING, per linear foot.

2 **ADDED** **W. LIQUIDATED DAMAGES FOR BRIDGES A1687 AND A1688**

1.0 Description. Bridges A1687 and A1688 shall not be closed to traffic until the contractor is ready to prosecute the work on the aforementioned bridges. The calendar days for closure of said bridges shall be limited to 50 calendar days, each. Calendar days for the closure of each bridge shall commence the day of the bridge closure and will continue until the bridges are opened to traffic. Bridge closure days will be computed separately, for each of bridge, unless they are closed concurrently. The contractor shall inform the engineer, in writing, at least 2 weeks before the closure of each bridge.

If bridge repair work, including the construction of the new wearing surface and guardrail is not complete and open to traffic prior to 50 calendar days after the initial closure, 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 \$3,200.00 per bridge, per day for each full day that bridge repair work, including the construction of the new wearing surface and guardrail 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 if whether it would otherwise be charged as liquidated damages under the Missouri Standard Specification for Highway Construction, as amended elsewhere in this contract.

2 ADDED X. LIQUIDATED DAMAGES FOR BRIDGES A22823 AND A22824

1.0 Description. Bridges A22823 and A22824 shall not have any lanes restricted to traffic until the contractor is ready to prosecute the work on the aforementioned bridges. The calendar days for lane restrictions on said bridges shall be limited to 80 calendar days, each bridge (40 calendar days per stage, per bridge). Calendar days for the closure of each bridge shall commence the day of the initial lane restrictions on each bridge and will continue until the bridge is opened to traffic. Lane restriction days will be computed separately, for each of bridge, unless the engineer approves of them being worked on (restricted) concurrently. The contractor shall inform the engineer, in writing, at least 2 weeks prior to any lane restrictions on each bridge.

If bridge repair work, including the construction of the new wearing surface and guardrail is not complete and open to traffic prior to 80 calendar days after the initial lane restriction, for each bridge, 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 \$5,000.00 per bridge with excessive lane restrictions, per day for each full day that bridge repair work on that bridge, including the construction of the new wearing surface and guardrail 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 if whether it would otherwise be charged as liquidated damages under the Missouri Standard Specification for Highway Construction, as amended elsewhere in this contract.

2 ADDED Y. LIQUIDATED DAMAGES FOR WORK ZONE DELAY

1.0 The contractor shall not alter the start time, ending time, or a reduction in the number of through lanes of traffic or ramp closure without advance notification and approval by the engineer. The only work zone operation approved to begin 30 minutes prior to a reduction in through traffic lanes or ramp closures is the installation of traffic control signs. Should lane closures be placed or remain in place, prior to the approved starting time or after the approved ending time, 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 15 minute increments with \$5,000 for the first 15 minutes, \$10,000 for each 15 minutes increments thereafter for a maximum of \$35,000 per hour, then \$35,000 per hour thereafter that the temporary lane closures are in place and not 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 unapproved closure time.

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



MEMORANDUM

Missouri Department of Transportation Construction and Materials Central Laboratory

TO: Craig Holdeman-KC/de

COPY:

FROM: Diane Roegge *DR*
Environmental Chemist

DATE: August 5, 2013

SUBJECT: Materials
Asbestos Inspection & Heavy Metal Paint Survey

Job No. J4I2374	Job No. J4I2374
Platte County	Platte County
Route I-29	Route I-635
Bridges	Bridges
A-1159	A-2435
A-1595	A-2436
A-1687	A-2437
A-1688	A-2438
A-1746	A-2484
A-1747	A-2576
A-2282	
A-2283	

We are providing you with the results of the requested inspection on the above referenced property. The inspection report contains an asbestos and a heavy metals survey, unless otherwise requested. The asbestos inspection included sample collection of suspect asbestos-containing material and National Voluntary Laboratory Accreditation Program (NVLAP) accredited testing to confirm the presence of asbestos. This asbestos and heavy metal paint report includes four different report forms. Form T746 lists all of the samples taken during the asbestos inspection. Form T747 shows only those samples that tested positive for Category I nonfriable asbestos-containing materials that may remain in the structure during demolition, if kept adequately wet to avoid visible air emissions. Form T748 shows only those samples that tested positive for asbestos and require removal prior to demolition. Form C760 lists all paint samples taken during the heavy metal paint survey and their metal content.

In accordance with the National Emissions Standard for Hazardous Air Pollutants (NESHAP), as well as city and county asbestos abatement regulations - Registration, Notification, and Performance Requirements, regulated asbestos-containing material (RACM) namely, Friable and Category II nonfriable, have a high probability of becoming friable under normal demolition forces. Practices and procedures for removal prior to demolition, disposal, and clearances should

TO: Holdeman-KC/de
Page 2
August 5, 2013

be in accordance with referenced regulations. Missouri Department of Transportation policy is to perform asbestos abatements in accordance with NESHAP.

In accordance with Missouri Department of Natural Resources' Technical Bulletin "Managing Construction and Demolition Waste" dated January 31, 2003, a heavy metal paint survey has been performed on the above referenced property. We are providing you with the results of this survey. This survey includes locating painted concrete, block and/or brick surfaces, sampling/testing the painted surface(s) to determine if hazardous heavy metals are present. Non-hazardous painted concrete, blocks, or bricks may be used as clean fill materials, if properly handled. You must contact the Central Office Design Division for proper handling of the reported painted surfaces.

Although our survey included observing and sampling behind walls, above ceilings, beneath floors, etc., it is possible that potentially hidden asbestos-containing materials may exist within the structure. To our knowledge, we have located all suspect asbestos-containing and all painted concrete, block and brick surfaces. If suspect asbestos-containing materials or if painted concrete, block and/or brick surfaces are observed in addition to those reflected in this inspection report, then please advise us immediately so that we may schedule a follow-up inspection.


Should you have any questions regarding these reports, please contact me at (573) 526-4359.

db

[http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared
documents/asbestos/districts/kansas city \(kc\)/jxi's/j4i2374/dr1308051.docx](http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared/documents/asbestos/districts/kansas%20city%20(kc)/jxi's/j4i2374/dr1308051.docx)
Attachments

TABLE OF CONTENTS

- A. Construction Requirements
- B. Class 2 Penetrating Concrete Sealer
- C. Clean and Epoxy Seal
- D. Rapid Set Concrete Patching Material – Vertical and Overhead Repairs
- E. Rapid Set Concrete Patching Material – Horizontal Repairs
- F. Surface Sealing Low Slump Concrete

 <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65101 Phone (888) 275-6636</p>
	<p>If a seal is present on this sheet, JSP's has been electronically sealed and dated.</p>
	<p>JOB NO. J412374 Platte County, MO Date Prepared: 10/17/2013</p>

JOB SPECIAL PROVISIONS (BRIDGE)

A. CONSTRUCTION REQUIREMENTS

1.0 Description. This provision contains general construction requirements for this project.

2.0 Construction Requirements. Plans for the existing structure(s) are included in the contract in the bridge electronic deliverables zip file for informational purposes only.

2.1 In order to assure the least traffic interference, the work shall be scheduled so that a lane closure is for the absolute minimum amount of time required to complete the work. A lane 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.

2.2 Qualified special mortar shall be a qualified rapid set concrete patching material in accordance with [Sec 704](#). A qualified rapid set concrete patching material will not be permitted for repairing concrete deck (half-soling), deck repair with void tube replacement, full depth repair, modified deck repair and substructure repair (formed) unless a note on the bridge plans specifies that a qualified special mortar may be used.

2.3 The following bridge(s) being re-decked, the slab was constructed as non-composite or composite which is mentioned in the following table.

Bridge No.	Type of deck
A1159 SB	Composite
A1159 NB	Composite
A2435	Composite
A2436	Composite

2.4 Provisions shall be made to prevent any debris and materials from falling onto the roadway. Any debris and materials that falls below the bridge outside the limits mentioned previously and if determined necessary by the engineer, the debris shall be removed as approved by the engineer at the contractor's expense. Traffic under the bridge shall be maintained in accordance with the contract documents.

2.5 Any damage sustained to the remaining structure as a result of the contractor's operations shall be repaired or the material replaced as approved by the engineer at the contractor's expense.

2.6 Provisions shall be made to prevent damage to any existing utilities. Any damage sustained to the utilities as a result of the contractor's operations shall be the responsibility of the contractor. All costs of repair and disruption of service shall be as determined by the utility owners and as approved by the engineer.

3.0 Method of Measurement. No measurement will be made.

4.0 Basis of Payment. Payment for the above described work will be considered completely covered by the contract unit price for other items included in the contract.

B. CLASS 2 PENETRATING CONCRETE SEALER

1.0 Description. This work shall consist of preparing and treating the concrete bridge deck, approach slabs (if present) and roadway face and top of barrier curb surfaces with a class 2

JOB SPECIAL PROVISIONS (BRIDGE)

penetrating concrete sealer meeting this specification. This type of sealer shall be used in lieu of the normal surface sealing for concrete in accordance with Sec 703.

2.0 Materials. The sealer shall meet the requirements of this job special provision. The sealer selected by the contractor shall be submitted to the engineer for approval two weeks before application and shall be listed on MoDOT’s Pre-Qualified Product List. If the contractor chooses to submit a new product for MoDOT’s Pre-Qualified Product List, the product shall be submitted to the engineer 30 days prior to application. Either submittal shall include certified test data from an independent test laboratory and the concrete mix design and curing procedure on the test specimens in which sealer was tested.

2.1 The sealer shall be a solvent-free 100% solids isobutyltrialkoxysilane, with low oligomer and polymer compound content. The chemical composition shall meet the following requirements:

Property	Specification
Purity	98% minimum monomer by weight
Solvent	Less than 0.1% by weight
Siloxan or polymer Residue	Less than 0.1% by weight
Chloride Ion Content	Less than 40 PPM
Density	ASTM D2111: 7.2 to 7.4 pounds per gallon
Flash Point	ASTM D93: greater than 145 degrees F
Dry Time	ASTM D7539: less than one hour

2.2 The sealer shall meet the following performance criteria based on a single application at the manufacturer’s recommended application rate. All test specimens shall be produced using MoDOT Class B-2 concrete in accordance with Section 501.

Test	Test Method	Duration	Max Absorption / Cl ⁻
Water Immersion	ASTM C 642	48 hours	0.5 percent by weight (mass)
Water Immersion	ASTM C 642	50 days	1.5 percent by weight (mass)
Salt Water Ponding (based on non-abraded specimen)	AASHTO T 259	90 days	0.50 lbs/cu yd (0.30 kg/m ³) Cl ⁻ Depth: (1/2 to 1”) (13 to 25 mm)

2.2.1 Absorption. The absorption of the treated concrete under total immersion shall not exceed 0.5 percent after 48 hours or 1.5 percent after 50 days per ASTM C 642 as modified below for non-air entrained concrete.

2.2.1.1 In addition to ASTM C 642 section 4.1, one 4-inch (10 cm) diameter by 4 inch (10 cm) long core shall be retrieved from the surface of a concrete test specimen to which sealer has been applied. No cores shall be taken from the bridge deck. The core shall be oven dried as designated by ASTM C 642 section 5.1. The core shall be sealed with a rapid setting two part epoxy on the sides and bottom. The epoxy shall overlap the top edge of the core 1/8” (3mm). The core shall be weighed to determine the oven dry weight (mass) of the core and coating. The weight (mass) shall be designated as “A”.

2.2.1.2 The core, processed in accordance with section 2.2.1.1 of this job special provision, shall be immersed in a suitable receptacle and covered with tap water. The procedure as designated by ASTM C 642 section 5.2 shall be followed to determine the soaked surface dry weight (mass) of the core and coating. This weight (mass) shall be designated as “B”.

JOB SPECIAL PROVISIONS (BRIDGE)

2.2.1.3 The percent moisture absorption of the core shall be determined by ASTM C 642 section 6.1, equation (1). ASTM C 642 sections 5.3, 5.4, 6.1 and equations (2) through (7) shall not apply.

2.2.2 Salt water ponding. After 90 days ponding of 3 percent NaCl solution per ASSHTO T 259, the chloride ion content of the concrete shall not exceed 0.5 pounds per cubic yard (0.30 kg/m³) at ½ to 1 inch (13 to 25 mm) depth.

2.3 The sealer shall not permanently stain, discolor or darken the concrete. Application of the sealer shall not alter the surface texture or form a coating on the concrete surfaces. Treated concrete shall be surface dry within 60 minutes after application.

2.4 The sealer shall be tinted with a fugitive dye to enable the coating to be visible on the treated concrete surface for at least 4 hours after application. The fugitive dye shall not be conspicuous more than 7 days after application when exposed to direct sunlight.

2.5 The sealer shall be delivered to the project in unopened containers with the manufacturer's label identifying the product and with the seal(s) intact. Each container shall be clearly marked by the manufacturer with the following information:

- Manufacturer's name and address.
- Product name.
- Date of manufacture and expiration date.
- Lot identification.
- Storage requirements.

3.0 Construction Requirements.

3.1 Equipment. Application equipment shall be as recommended by the manufacturer. The spray equipment, tanks, hoses, brooms, rollers, coaters, squeegees, etc. shall be thoroughly clean, dry, free of foreign matter, oil residue and water prior to applying the treatment.

3.2 Cleaning and Surface Preparation. Surfaces which are to be treated shall meet the approved product's requirements for surface condition. Sealing shall not be done until all concrete construction or repair has been completed and cured to the requirements of the manufacturer. At a minimum, the wet cure must be complete and the moisture content of the concrete must be at or below the manufacturer's recommendation as measured by a moisture meter. The contractor shall furnish the engineer with written instructions for the surface preparation requirements and a representative of the manufacturer shall be present to assure that the surface conditions meet the manufacturer's requirements.

3.2.1 Sealing shall be done after the bridge deck has been textured.

3.2.2 At a minimum, the surface shall be thoroughly cleaned to remove dust, dirt, oil, wax, curing components, efflorescence, laitance, coatings and other foreign materials. The manufacturer or manufacturer's representative shall approve the use of chemicals and other cleaning compounds to facilitate the removal of these foreign materials before use. The treatment shall be applied within 48 hours following surface preparation.

3.2.3 Cleaning equipment shall be fitted with suitable traps, filters, drip pans and other devices to prevent oil and other foreign material from being deposited on the surface.

3.3 Test Application. Prior to final application, the contractor shall treat a measured test coverage area on horizontal and vertical surfaces of the different components of the structure to be treated for the purpose of demonstrating the desired physical and visual effect on an application or of obtaining a visual illustration of the absorption necessary to achieve the specified coverage rate. In the latter case, the applicator shall use at least ½ gallon (1.9 liter) of treatment following the manufacturer's recommended method of application for the total of the test surfaces. Horizontal test surfaces shall be located on the deck and on the curb or sidewalk, and vertical test surfaces shall be located on a parapet or safety barrier curb so that the different textures are displayed.

3.4 Application. The sealer shall be applied by thoroughly saturating the concrete surfaces at an application rate of 175 square feet per gallon or the rate designated on the plans.

3.4.1 The concrete surface temperature shall be above 35°F (2°C).

3.4.2 Allow concrete to dry a minimum of 48 hours after any measurable precipitation.

3.4.3 The treatment shall be spread from puddles to dry areas.

3.4.4 If the applicator is unable to complete the entire application continuously, the location where the application was stopped shall be noted and clearly marked.

3.5 Protection of Adjoining Surfaces and the Public.

3.5.1 When applying the sealer, the contractor shall protect adjoining surfaces of the structure that are not to be sealed by masking off or by other means. Sealer shall not leave residue on glass, painted metal or automobiles. The contractor shall also make provision to protect the public when sealing the fascia of a bridge that spans an area used by the public.

3.5.2 Asphalt and mastic type surfaces shall be protected from spillage and overspray. Any asphalt pavement damaged by the sealer will result in removal and replacement at the contractor's expense. Joint sealants, traffic paints and asphalt overlays may be applied to the treated surfaces 48 hours after the treatment has been applied. Adjoining and nearby surfaces of aluminum or glass shall be covered where there is possibility of the treatment being deposited on the surfaces. Plants and vegetation shall be protected from overspray by covering with drop cloths. Precautions shall be followed as indicated on the manufacturer's product and material safety data sheet.

3.6 Opening to Traffic. Traffic shall be allowed on a deck only after a treated area is visibly dry. Dried coating shall not leave residue on glass, painted metal or automobiles.

4.0 Method of Measurement. No direct measurement will be made.

5.0 Basis of Payment. Payment for the above described work shall be considered completely covered by the contract unit price for other items included in the contract.

C. CLEAN AND EPOXY SEAL

1.0 Description. In order to protect the bridge superstructure concrete from deicing chemicals and other contaminants, loose and delaminated concrete shall be removed and an epoxy seal

JOB SPECIAL PROVISIONS (BRIDGE)

shall be applied to the concrete in accordance with the bridge plans and this job special provision.

2.0 Construction Requirements. After repairs to the slab has been performed and the concrete fully cured as required by the epoxy manufacturer's written recommendations, the epoxy sealing preparation and applying the epoxy to the areas as shown on the bridge plans and shall be in accordance with [Sec 704](#).

3.0 Method of Measurement. The area to be cleaned and epoxy sealed will be computed to the nearest square foot. Final measurement will not be made except for authorized changes during construction or if appreciable errors are found in the contract quantity.

4.0 Basis of Payment. Payment for the above described work, including all material, equipment, labor and any other incidental work necessary to complete this item, will be based on the contract plan quantities and will be considered completely covered by the contract unit price for "Clean and Epoxy Seal". Any change in the contract plan quantities, based on approved change orders, will be paid for at the contract unit price.

D. RAPID SET CONCRETE PATCHING MATERIAL – VERTICAL AND OVERHEAD REPAIRS

1.0 Description. This specification covers cementitious concrete, polymer-modified concrete and polymer concrete that are suitable for repairing concrete surfaces on bridges or concrete structures, particularly under fast setting or special conditions. The repairs would involve vertical or overhead applications. The work shall consist of removing, furnishing, preparing, and placing materials at locations as shown on the plans or as directed by the engineer.

2.0 Material. All materials shall be in accordance with MoDOT specifications and as noted herein.

2.1 Aggregate For Extending Commercial Mixture. Coarse and fine aggregates shall be in accordance with [Sec 1005](#), except the requirements for gradation and percent passing the No. 200 sieve shall not apply. Coarse aggregate meeting Gradation E requirements shall be used for repairs greater than one inch (25 mm) in depth. Fine aggregate will be allowed for repairs less than one inch (25 mm). Aggregate specified, bagged, labeled and furnished by the rapid set concrete patching material manufacturer may also be used for mortar extension.

2.2 Material Applications. The contractor shall select and use the product most suitable for the work and field conditions in accordance with these specifications.

2.3 Curing. Rapid set concrete patching material shall be cured until the minimum compressive strength 1500 psi is attained using standard curing specifications, unless otherwise specified by the manufacturer.

2.4 Qualification and Project Acceptance.

2.4.1 Inspection. All materials shall be subject to inspection and sampling by MoDOT at the source of manufacture, intermediate shipping terminal or destination. MoDOT will be allowed free access to all facilities and records as required to conduct inspection and sampling.

2.4.2 Qualification. Prior to use, rapid set concrete patching materials need to be qualified.

JOB SPECIAL PROVISIONS (BRIDGE)

2.4.2.1 Requested Information. The manufacturer shall submit with samples of the materials, a written request to Construction and Materials with the following information:

- (a) New Products Evaluation Form
- (b) Brand name of the product.
- (c) Certification that the material meets this specification.
- (d) Certified test results from an independent laboratory showing compliance with this specification.
- (e) Specific preparation instructions of repair area.
- (f) Specific mixing, handling and curing instructions.
- (g) Application type (i.e., vertical or overhead).

2.4.2.2 Field Evaluation. Final approval will be granted when the following requirements are met:

- (a) MoDOT report documenting two years of field performance on MoDOT system. The report will contain the placement date, field observations (semi annual), description of field performance and photographs of in-place material.
- (b) A manufacturer's representative shall be present during placement of the material to provide technical expertise.

2.4.2.3 Disqualification. If during the two year observation period the repair area(s) fails the product will not be added to the qualified list.

2.5 Qualified List. The listing of qualified products are available from Construction and Materials or on MoDOT's web site. New certified test results and samples shall be submitted any time the manufacturing process or the material formulation is changed. The material will be subject to removal from the qualified list if there is evidence of unsatisfactory performance or a change in manufacturing process or formulation, or when random sampling and testing of material offered for use indicates nonconformity with any of the requirements herein specified.

2.6 Certification. The contractor shall supply a manufacturer's certification to the engineer for each lot of material furnished. The certification shall include the name of the manufacturer, a manufacturer certification statement that the material supplied is the same as that qualified and listing the date of qualification.

2.7 Acceptance. Acceptance of the material will be based on the use of a qualified product, the manufacturer's certification that the material supplied is the same as that approved and upon the results of such tests as may be performed by the engineer.

3.0 Mixture. Unless otherwise specified, rapid set concrete patching material shall be approved commercial mixtures meeting [Sections 3.1 – 3.1.3.](#) Rapid set concrete patching materials shall be specifically designed for the application needed.

JOB SPECIAL PROVISIONS (BRIDGE)

3.1 Commercial Mixtures. Rapid set concrete patching material in its sacked form and mixtures when properly prepared in accordance with the manufacturer's specifications, shall meet the minimum test requirements given in Table 1. Mixtures may be supplied, as required, as a patching mortar or as a patching mortar with aggregate extension. If the material is to be supplied with extender aggregate, this shall also pass the required tests in Table 1 using the maximum allowed amount of extender aggregate.

3.1.1 Mixture Requirements. Rapid set concrete patching material shall be single packaged dry mix requiring the addition of water or other liquid component just prior to mixing. The material shall not contain soluble chlorides as an ingredient of manufacture. The material shall be placed in accordance to the manufacturer's recommendations.

Table 1 (English Unit)				
Physical Test Property	Specification	Requirement for cementitious concrete	Requirement for polymer-modified concrete	Requirement for polymer concrete
Bond Strength by Slant Shear	ASTM C882/C928 ²	min. 1000 psi @ 24hrs. & min. 1500 psi @ 7 days	n/a	min. 1000 psi @ 24hrs. & min. 1500 psi @ 7 days
Linear Coefficient of Thermal Expansion ¹ (for bagged mortar only, without extension aggregate)	ASTM C531	n/a	n/a	4 – 8 X 10 ⁻⁶ in/in/deg F
Resistance to Rapid Freezing & Thawing	AASHTO T161 or ASTM C666	80% min. using Procedure B ³ (300 Cycles)	80% min. using Procedure B ³ (300 Cycles)	n/a
Compressive Strength	AASHTO T22 or ASTM C39	1500 psi @ 3 hr & 3000 psi @ 24 hr	1500 psi @ 3 hr & 3000 psi @ 24 hr	n/a
Rapid Chloride Permeability	AASHTO T277 or ASTM C1202	1000 coulombs @ 28 days	1000 coulombs @ 28 days	1000 coulombs @ 28 days
Length Change	AASHTO T 160 or ASTM C157	In water Storage (+0.15) In air storage (-0.15)	In water storage (+0.15) In air storage (-0.15)	n/a
Color		gray	gray	gray

¹ Not required for extended mixtures if the mortar passes this requirement.

² ASTM C882 shall be performed on non-water based materials. ASTM C928 shall be performed on water-based materials.

³ Procedure A may be used in lieu of Procedure B

3.1.2 Construction Requirements. The manufacturer shall provide with the bagged mixture, specifications for the mixing procedure, amount and kind of liquid to be added, and the amount

JOB SPECIAL PROVISIONS (BRIDGE)

of aggregate extension allowed, if any. All mixing, handling and curing practices recommended by the manufacturer shall be followed and will be considered a part of these specifications.

3.1.3 Removal from Qualified List. All mixtures shall be approved before use. Reoccurring failures of any mixture for any reason will be cause for removal from the qualified list.

3.2 Vertical Repair.. A qualified rapid set concrete patching material approved for vertical use may be used when specified on the plans and as approved by the engineer. The engineer will make field cylinders to verify the 1500 psi (10 MPa) minimum strength. The material shall adhere to the concrete surface without sagging.

3.3 Overhead Repair. A qualified rapid set concrete patching material approved for overhead use may be used when specified on the plans and as approved by the engineer. The material shall be placeable in layers of at least 1 inch on overhead applications without the use of formwork or anchoring devices. The material shall adhere to the concrete surface without sagging. The engineer will make field cylinders to verify the 1500 psi (10 MPa) minimum strength.

4.0 Construction Requirements.

4.1 Mixing. Rapid set concrete patching material shall be mixed and finished according to the manufacturer's recommendation.

4.2 Preparation of Repair Area. Deteriorated, damaged or defective concrete as shown on the plans, required by the specifications or as directed by the engineer, shall be removed. All exposed reinforcement shall be thoroughly cleaned as shown on the plans, required by the specifications or as directed by the engineer. Unless otherwise specified by the commercial mixture manufacturer, the existing surface shall be damp and all free water shall be removed prior to placement of the required material.

4.3 Bonding Agent. A bonding agent may be used if recommended by the rapid set concrete patching material manufacturer.

5.0 Method of Measurement. No measurement will be made for rapid set concrete patching material.

6.0 Basis of Payment. Rapid set concrete patching material will be paid for at the contract unit price for other items and will be considered full compensation for all labor, equipment and material to complete the described work.

E. RAPID SET CONCRETE PATCHING MATERIAL – HORIZONTAL REPAIRS

1.0 Description. This specification covers cementitious concrete, polymer-modified concrete and polymer concrete that are suitable for repairing concrete surfaces on bridges or roadways, particularly under fast setting or special conditions. The repairs would involve horizontal applications. The work shall consist of removing, furnishing, preparing, and placing materials at locations as shown on the plans or as directed by the engineer.

2.0 Material. All materials shall be in accordance with MoDOT specifications and as noted herein.

2.1 Aggregate For Extending Commercial Mixture. Coarse and fine aggregates shall be in accordance with [Sec 1005](#), except the requirements for gradation and percent passing the No. 200 sieve shall not apply. Coarse aggregate meeting Gradation E requirements shall be used for repairs greater than one inch (25 mm) in depth. Fine aggregate will be allowed for repairs less than one inch (25 mm). Aggregate specified, bagged, labeled and furnished by the rapid set concrete patching material manufacturer may also be used for mortar extension.

2.2 Material Applications. The contractor shall select and use the product most suitable for the work and field conditions in accordance with these specifications.

2.3 Curing. Rapid set concrete patching material shall be cured until the minimum compressive strength 3200 psi is attained using standard curing specifications, unless otherwise specified by the manufacturer.

2.4 Qualification and Project Acceptance.

2.4.1 Inspection. All materials shall be subject to inspection and sampling by MoDOT at the source of manufacture, intermediate shipping terminal or destination. MoDOT will be allowed free access to all facilities and records as required to conduct inspection and sampling.

2.4.2 Qualification. Prior to use, rapid set concrete patching material shall be qualified. In order to become qualified, a material shall have completed testing through AASHTO's National Transportation Product Evaluation Program (NTPEP). The manufacturer shall contact the AASHTO/NTPEP coordinator to obtain the testing location for the rapid setting concrete patching material.

2.4.2.1 Requested Information. The manufacturer shall submit with samples of the materials, a written request to Construction and Materials with the following information:

- (a) Brand name of the product.
- (b) Certification that the material meets this specification.
- (c) NTPEP test results showing compliance with this special provision.
- (d) Specific mixing, handling and curing instructions.
- (e) Application type (i.e., bridge or roadway).

2.4.2.2 Qualified List. Upon approval by the engineer, the brand name and manufacturer will be placed on a qualified list of rapid set concrete patching materials. The listing of qualified materials is available from Construction and Materials or on MoDOT's web site. New certified test results and samples shall be submitted any time the manufacturing process or the material formulation is changed. The material will be subject to removal from the qualified list if there is evidence of unsatisfactory performance or a change in manufacturing process or formulation, or when random sampling and testing of material offered for use indicates nonconformity with any of the requirements herein specified.

2.4.3 Provisional Approval. Provisional approval may be granted provided the following requirements have been met:

- (c) New Products Evaluation Form

- (d) Certified test results from an independent laboratory showing compliance with this special provision.
- (e) Documentation prepared by MoDOT covering two years of field performance on MoDOT's system. MoDOT will need to approve the location of the test site. Documentation will contain the placement date, field observations (semi annual), description of field performance and photographs of in-place material.
- (f) During placement the manufacturer's representative shall be present on the project to provide technical expertise.

2.4.3.1 Disqualification. If during the two year observation period the repair area(s) fails provisional approval will not be granted. Repair area(s) experiencing any cracking, debonding or spalling will be considered a failure.

2.4.3.2 Length of Provisional Approval. Provisional approval will be granted for three years or until NTPEP testing is completed.

2.5 Certification. The contractor shall supply a manufacturer's certification to the engineer for each lot of material furnished. The certification shall include the name of the manufacturer, a manufacturer certification statement that the material supplied is the same as that qualified and listing the date of qualification.

2.6 Acceptance. Acceptance of the material will be based on the use of a qualified or provisionally approved material, the manufacturer's certification that the material supplied is the same as that approved and upon the results of such tests as may be performed by the engineer.

3.0 Mixture. Unless otherwise specified, rapid set concrete patching material shall be approved commercial mixtures meeting [Sections 3.1 – 3.1.3](#) or deck repair cementitious mortar meeting [Section 3.2](#). Rapid set concrete patching materials shall be specifically designed for the application needed.

3.1 Commercial Mixtures. Rapid set concrete patching material in its sacked form and mixtures when properly prepared in accordance with the manufacturer's specifications, shall meet the minimum test requirements given in Table 1. Mixtures may be supplied, as required, as a patching mortar or as a patching mortar with aggregate extension. If the material is to be supplied with extender aggregate, this shall also pass the required tests in Table 1 using the maximum allowed amount of extender aggregate.

3.1.1 Mixture Requirements. Rapid set concrete patching material shall be single packaged dry mix requiring the addition of water or other liquid component just prior to mixing. The material shall be capable of ½ inch (13 mm) to full depth repair and require no bonding agent. The material shall not contain soluble chlorides as an ingredient of manufacture. The material shall be placed in accordance to the manufacturer's recommendations.

JOB SPECIAL PROVISIONS (BRIDGE)

Table 1 (English Unit)				
Physical Test Property	Specification	Requirement for cementitious concrete	Requirement for polymer-modified concrete	Requirement for polymer concrete
Bond Strength by Slant Shear ¹	ASTM C882/C928 ³	min. 1000 psi @ 24hrs. & min. 1500 psi @ 7 days	n/a	min. 1000 psi @ 24hrs. & min. 1500 psi @ 7 days
Linear Coefficient of Thermal Expansion ^{1, 2} (for bagged mortar only, without extension aggregate)	ASTM C531	n/a	n/a	4 – 8 X 10 ⁻⁶ in/in/deg F
Resistance to Rapid Freezing & Thawing ¹	AASHTO T161 or ASTM C666	80% min. using Procedure B ⁵ (300 Cycles)	80% min. using Procedure B ⁵ (300 Cycles)	n/a
Compressive Strength ¹	AASHTO T22 or ASTM C39	3200 psi @ 3 hr & 4000 psi @ 7 days	3200 psi @ 3 hr & 4000 psi @ 7 days	n/a
Rapid Chloride Permeability ¹	AASHTO T277 or ASTM C1202	<u>Bridge Decks</u> 1000 coulombs @ 28 days <u>Roadway</u> 2000 coulombs @ 28 days	<u>Bridge Deck</u> 1000 coulombs @ 28 days <u>Roadway</u> 2000 coulombs @ 28 days	<u>Bridge Deck</u> 1000 coulombs @ 28 days <u>Roadway</u> 2000 coulombs @ 28 days
Length Change ^{1,4}	AASHTO T 160 or ASTM C157	In water Storage (+0.15) In air storage (-0.15)	In water storage (+0.15) In air storage (-0.15)	n/a
Color		gray	gray	gray

¹The commercial mix test values can be located in the AASHTO's National Transportation Product Evaluation Program (NTPEP) reports for Laboratory Evaluations of Rapid Set Concrete Patching Materials. Data for provisionally approved materials is located at the Construction and Materials Division.

²Not required for extended mixtures if the mortar passes this requirement.

³ ASTM C882 shall be performed on non-water based materials. ASTM C928 shall be performed on water-based materials.

⁴ As modified by ASTM C928.

⁵ Procedure A may be used in lieu of Procedure B

3.1.2 Construction Requirements. The manufacturer shall provide with the bagged mixture, specifications for the mixing procedure, amount and kind of liquid to be added, and the amount of aggregate extension allowed, if any. All mixing, handling and curing practices recommended by the manufacturer shall be followed and will be considered a part of these specifications.

3.1.3 Removal from Qualified List. All mixtures shall be approved before use. Reoccurring failures of any mixture for any reason will be cause for removal from the qualified list.

3.2 Deck Repair Concrete. A qualified rapid set concrete patching material indicated for horizontal use and intended for patching concrete bridge decks may be used when specified on the plans and as approved by the engineer. If this option is selected, the contractor shall provide a trial mix to determine the total cure time needed to achieve a compressive strength of 3200 psi (22 MPa). Compressive specimens shall be prepared in accordance with current MoDOT test methods and cured to simulate actual field conditions. Testing of compressive specimens shall be performed by methods and at facilities acceptable to the engineer. The repaired deck shall not be opened to traffic until at least 4 hours after the last placement of deck repair concrete, the established cure time has elapsed and until such concrete has achieved a compressive strength of 3200 psi (22 MPa). A new trial mix may be required if the engineer determines the field conditions vary substantially from trial mix conditions. The engineer will make field cylinders to verify the 3200 psi (22 MPa) minimum strength.

4.0 Construction Requirements.

4.1 Mixing. Rapid set concrete patching material shall be mixed and finished according to the manufacturer's recommendation.

4.2 Preparation of Repair Area. Deteriorated, damaged or defective concrete as shown on the plans, required by the specifications or as directed by the engineer, shall be removed. All exposed reinforcement shall be thoroughly cleaned as shown on the plans, required by the specifications or as directed by the engineer. Unless otherwise specified by the commercial mixture manufacturer, the existing surface shall be damp and all free water shall be removed prior to placement of the required material.

4.3 Bonding Agent. A bonding agent may be used if recommended by the rapid set concrete patching material manufacturer.

5.0 Method of Measurement. No measurement will be made for rapid set concrete patching material.

6.0 Basis of Payment. Rapid set concrete patching material will be paid for at the contract unit price for other items and will be considered full compensation for all labor, equipment and material to complete the described work.

F. SURFACE SEALING LOW SLUMP CONCRETE

1.0 Description. This provision allows surface sealing low slump concrete to be applied as last order of work.

2.0 Construction Requirements. The surface of the low slump concrete shall be surface sealed in accordance with the job special provision, Class 2 Penetrating Concrete Sealer, except that lanes may be opened to traffic after the low slump concrete has properly cured in accordance with [Sec 505](#) and the sealant applied as a last order of work. Any lanes open to traffic prior to surface sealing shall have foreign materials removed. Surfaces that are sealed after each stage of construction shall have all vertical construction joints between stages protected from the surface sealant.

3.0 Method of Measurement. No measurement will be made.

JOB SPECIAL PROVISIONS (BRIDGE)

4.0 Basis of Payment. Payment for the above describe work will be considered completely covered by the contract unit price for other items included in the contract.

Job No.: J413020C

Route: I-635

County: Platte

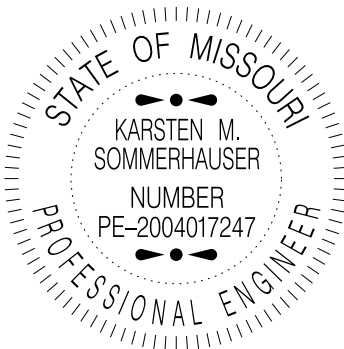
JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)

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

- A. General
- B. Contract Liquidated Damages
- C. Emergency Provisions and Incident Management
- D. Utilities
- E. Supplemental Revisions
- F. Safety Plan
- G. Protection of BNSF Railway Interests – Bridges A2431 & A2432
- H. Urban Seeding Recommendation
- I. Flume Drain
- J. Project Contact for Contractor/Bidder Questions

2 ADDED

K. Quality Management

 <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636</p>
	<p>If a seal is present on this sheet, JSP's have been electronically sealed and dated.</p>
	<p>JOB NUMBER: J413020C PLATTE COUNTY, MO DATE PREPARED: October 21, 2013</p>
	<p>ADDENDUM DATE: R002 January 22, 2014</p>
<p>Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: A-<input checked="" type="checkbox"/></p>	

JOB
SPECIAL PROVISION

A. GENERAL - FEDERAL JSP-09-02A

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 "Bidding". 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 "Business"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to October 2009 Missouri Std. Plans
For Highway Construction

These supplemental bidding documents contain all current revisions to the bound printed 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

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 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.

Job No.: J4I3020C
Route: I-635
County: Platte

Notice to Proceed: April 7, 2014
Completion Date (I-635 work): October, 31 2014
Completion Date (I-29 work): October, 30 2015

2.1 Calendar Days. The count of calendar days will begin on the date the contractor starts any construction operations on the project.

Job Number	Calendar Days
J4I2374, J4I2353 & J4I3020C	(I-635 work) 161
J4I2374	(I-29 work) 170

3.0 Liquidated Damages for Contract Administrative Costs. Should the contractor fail to complete the work on I-635 on or before the 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 the amount of **\$1,500.00** per calendar day for each full calendar day that the work is not fully completed on I-635. Should the contractor fail to complete the work on I-29 on or before the 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 the amount of **\$1,500.00** per calendar day for each full calendar day that the work is not fully completed on I-29. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the above specified 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 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 4.1. These damages are in addition to the contract administrative damages and any other damages as specified elsewhere in this contract.

4.1 Road User Costs.

Job Number		Road User Cost
J4I2353 & J4I3020C	(I-635 work)	\$9,800.00
J4I2374	(I-29 work)	\$11,400.00

C. EMERGENCY PROVISIONS AND INCIDENT MANAGEMENT

1.0 The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from the police or other emergency agencies for incident management. In case of traffic accidents or the need for police to direct or restore traffic flow through the job site, the contractor shall notify police 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 police services, the following agencies may also be notified for accident or emergency situation within the project limits.

Missouri Highway Patrol (816-622-0800)	
City of Riverside	County of Platte
Fire: 816-672-9024	Sheriff: 816-858-2232)
Police: 816-741-1191	

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 police agency.

2.2 The contractor shall notify 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 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.

D. UTILITIES

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

<u>Utility Company</u>	<u>Known Required Adjustment</u>
Mr. Allen Ackland, PMP Supervising Engineer, Transmission Kansas City Power and Light Co. 4400 E. Front St. Kansas City, MO 64120 (816) 245-3753	None
Mr. Brian Cornish CenturyLink 5454 West 110th Street Overland Park, KS 66211 (913) 345-7524	None

1.1 The existence and approximate location of utility facilities known to exist, as shown on the plans, are based upon the best information available to the Commission at this time. This information is provided by the Commission "as-is" and the Commission expressly disclaims any representation or warranty as to the completeness, accuracy, or suitability of the information for any use. Reliance upon this information is done at the risk and peril of the user, and the Commission shall not be liable for any damages that may arise from any error in the information. It is, therefore, the responsibility of the contractor to verify the above listing information indicating existence, location and status of any facility. Such verification includes direct contact with the listed utilities.

1.2 The contractor agrees that any effects of the presence of the utilities, their relocation, contractor's coordination of work with the utilities and any delay in utility relocation shall not be compensable as a suspension of work, extra work, a change in the work, as a differing site condition or otherwise including but, without limitation, delay, impact, incidental or consequential damages. The contractor's sole remedy for the effects of the presence of utilities, delay in their relocation or any other effects shall be an excusable delay as provided in Section 105.7.3. The contractor waives, for itself, its subcontractors and suppliers the compensability of the presence of utilities, delay in their relocation and any cost to the contractor, it's subcontractors and suppliers in any claim or action arising out of or in relation to the work under the contract.

1.3 The contractor shall be solely responsible and liable for incidental and consequential damage to any utility facilities or interruption of the service caused by it or its subcontractors operation. The contractor shall hold and save harmless the Commission from damages to any utility facilities interruption of service by it or it's subcontractor's operation.

2.0 It shall be noted by the contractor that MoDOT is a member of Missouri One Call (800 Dig Rite). Some work on this project may be in the vicinity of MoDOT utility facilities, which includes but is not limited to traffic signal cables, highway lighting circuits, ITS cables, cathodic protection cables, etc. Prior to beginning work, the contractor shall request locates from Missouri One Call. The contractor shall also complete the Notice of Intent to Perform Work form located at the Missouri Department of Transportation website:

<http://www.modot.mo.gov/asp/intentToWork.shtml>

The contractor shall submit the form over the web (preferred method) or by fax to the numbers on the printed form. The notice must be submitted a minimum of 2 and a maximum of 10 working days prior to excavation just as Missouri One Call requires.

E. SUPPLEMENTAL REVISIONS JSP-09-01M

Insert Sec 109.15, Sec 109.16 and Sec 109.17, subsequent section renumbered accordingly:

109.15 Seal Coat Price Index. Adjustments will be made to the payments due the contractor for Seal Coat placed in accordance with Section 409 of the Standard Specifications when the quantity exceeds 50,000 square yards for an individual project or any number of projects in the contract combination. Adjustments will be calculated in accordance with Asphalt Cement Price Index of the General Provisions, except as defined herein.

109.15.1 Basis of Payment. To determine the adjustment for any material specified in this provision the following formula will be used.

$$A = B \times (2.01/2000) \times (D - E)$$

Where: A = adjustment for Seal Coat placed during the index period
B = square yards of seal coat placed during the index period
D = average index price at the beginning of the period
E = average index price at the time of bid

109.15.2 Optional. This provision is optional. If the bidder wishes to be bound by this provision, the bidder shall execute the acceptance form in the Bid for the Asphalt Cement Price Index. Acceptance of this provision will apply to both the Asphalt Cement Price Index and Seal Coat Price Index. Failure by the bidder to execute the acceptance form will be interpreted to mean election to not participate in the Asphalt Cement Price Index or Seal Coat Price Index.

109.16 Asphalt Underseal Price Index. Adjustments will be made to the payments due the contractor for Asphalt underseal placed in accordance with Section 625 of the Standard Specifications when the quantity exceeds 10,000 gallons for an individual project or any number of projects in the contract combination. Adjustments will be calculated in accordance with Asphalt Cement Price Index of the General Provisions, except as defined herein.

109.16.1 Basis of Payment. To determine the adjustment for any material specified in this provision the following formula will be used.

$$A = B \times (8.66/2000) \times (D - E)$$

Where: A = adjustment for asphalt underseal placed during the index period
B = gallons of asphalt underseal placed during the index period
D = average index price at the beginning of the period
E = average index price at the time of bid
(use average specific gravity of 1.04 for underseal)

109.16.2 Optional. This provision is optional. If the bidder wishes to be bound by this provision, the bidder shall execute the acceptance form in the Bid for the Seal Coat Price Index. Failure by the bidder to execute the acceptance form will be interpreted to mean election to not participate in the Seal Coat Price Index.

109.17 Polymer Modified Emulsion Membrane Price Index. Adjustments will be made to the payments due the contractor for Polymer Modified Emulsion Membrane placed in accordance with Sec 413.30 when the quantity exceeds 5,000 square yards. Adjustment will be calculated in accordance with the Supplemental Asphalt Price Adjustment except as defined herein.

109.17.1 Basis of Payment. To determine the adjustment for any material specified in this provision the following formula will be used.

$$A=B \times (1.20/2000) \times (D - E)$$

Where: A = adjustment for membrane placed during the index period
B = square yards of membrane placed during the index period
D = average index price at the beginning of the period
E = average index price at time of bid

109.17.2 Optional. This provision is optional. If the bidder wishes to be bound by the provision, the bidder shall execute the acceptance form in the Bid for Polymer Modified Emulsion Membrane Price Index. Failure by the bidder to execute the acceptance form will be interpreted to mean election not to participate in the Polymer Modified Emulsion Membrane Price Index.

Delete Sec 407 in its entirety and substitute the following:

407.1 Description. This work shall consist of preparing and treating an existing bituminous or concrete surface with bituminous material, in accordance with these specifications.

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

Item	Section
Emulsified Asphalt or PG Liquid Asphalt	1015

407.3 Equipment. The contractor shall provide a system for heating and applying the bituminous material. The system shall be designed, equipped, maintained and operated such that emulsified asphalt or liquid asphalt, at even heat, may be applied uniformly on variable widths of surface up to 15 feet with uniform pressure and an allowable variation from any specified rate of ± 0.01 gallon per square yard. The system shall include a calibrated tank and a thermometer for measuring temperature of tank contents. The system shall be equipped with instrumentation that continuously verifies application rates. The calibration of the system shall be approved by the engineer prior to use, and the contractor shall furnish all equipment, material and assistance if calibration is required.

407.4 Construction Requirements.

407.4.1 Preparation of Surface. The existing surface shall be free of all dust, loose material, grease or other foreign material at the time the tack is applied. Any excess bituminous surface mixture or bituminous joint material will be removed by MoDOT without cost to the contractor before the tack is applied.

407.4.2 Application. Asphalt emulsion or PG liquid asphalt shall be applied uniformly with a pressure distributor at the minimum rates indicated in the following table. No dilution of the emulsified asphalt material shall be allowed. The tack coat material shall be heated at the time of application to a temperature in accordance with Sec 1015. The tack coat shall be properly cured and the tacked surface shall be clean of all dirt before the next course is placed.

Tack Coat Application Rates	
Surface Type	Minimum Application Rate (gal/sq yd)
New Asphalt Pavement	0.05
Existing Asphalt or Concrete Pavement	0.08

407.4.3 Tack. The tack coat shall be applied in such a manner as to cause the least inconvenience to traffic and to permit one-way traffic without tracking of asphalt emulsion. All exposed tack coat shall be covered with bituminous mixture prior to opening to traffic.

407.5 Method of Measurement. Measurement of asphalt emulsion to the nearest 10 gallons will be made in accordance with Sec 1015.

407.6 Basis of Payment. The accepted quantity of tack coat will be paid for at the contract unit price.

Delete Sec 1015.20.5.1 and substitute the following:

1015.20.5.1 Polymer Modified Asphalt Emulsion – Seal Coat. Bituminous material for polymer modified asphalt shall be in accordance with the following:

<i>Polymer Modified Asphalt Emulsion</i>				
Test ^a	CRS-2P		EA-90P	
	Min	Max	Min	Max
Viscosity, SSF @ 50 C	100	400	100	400
Storage Stability Test ^b , 24 hour, percent	----	1	----	1
Classification Test	Pass	----	----	----
Particle Charge Test	Positive	----	----	----
Sieve Test, percent	----	0.3	----	0.3
Demulsibility, 0.02 N CaCl ₂ , percent	----	----	30	----
Distillation:				
Oil distillate by volume of emulsion, percent	----	3	----	3
Residue from distillation ^c , percent	65	----	65	----
Tests on Residue from Distillation:				
Penetration, 25 C, 100 g, 5 sec	100	200	100	200
Ductility, 4 C, 5 cm/minute, cm	30	----	25	----
Ash ^d , percent	----	1	----	1
Float Test at 60 C, sec	----	----	1200	----
Elastic Recovery ^e , percent	58	----	58	----

^aAll tests shall be performed in accordance with AASHTO T 59 except as noted.

^bIn addition to AASHTO T 59, upon examination of the test cylinder, and after standing undisturbed for 24 hours, the surface shall show no appreciable white, milky colored substance and shall be a homogeneous brown color throughout.

^cAASHTO T 59 shall be modified to maintain a 399 F ± 10 F maximum temperature for 15 minutes.

^dPercent ash shall be determined in accordance with AASHTO T 111, *Ash in Bituminous Material*.

^eElastic recovery shall be determined as follows. Condition the ductilometer and samples to be treated at 50 F. Prepare the brass plate, mold and briquet specimen in accordance with AASHTO T 51. Keep the specimen at the specified test temperature of 50 F for 85 to 95 minutes. Immediately after conditioning, place the specimen in the ductilometer and proceed to elongate the sample to 20 cm at a rate of pull of 5 cm/min. After the 20 cm elongation has been reached, stop the ductilometer and hold the sample in the elongated position for 5 minutes. After 5 minutes, clip the sample approximately in half by means of scissors or other suitable cutting devices. Let the sample remain in the ductilometer in an undisturbed condition for one hour. At the end of this time period, retract the half sample specimen until the two broken ends touch. At this point note the elongation (x) in cm. Calculate the percent recovery by the following formula:

$$\% \text{ Recovery} = \frac{20 - X}{20} \times 100$$

Polymer Modified Asphalt Emulsion		
Test ^a	CHFRS-2P	
	Min.	Max.
Viscosity, SFS @ 50 C	100	400
Storage Stability Test, 24 hour, percent	---	1.0
Demulsibility, 35 ml 0.8% dioctyl sodium sulfosuccinate, percent	60	---
Sieve Test, percent	---	0.10
Particle Charge Test	Positive	
Distillation ^b		
Oil Distillate, by volume of emulsion, percent	---	0.5
Residue from distillation, percent	65	---
Tests on Residue from Distillation:		
Polymer content, weight, percent (solids based)	3.0	---
Softening Point, C	54	---
Float test at 60 C, s	1800	---
Penetration, 25 C, 100 g, 5 s	80	130
Viscosity @ 60 C, Poise	1300	---
Solubility in Trichloroethylene, percent	95	---
Elastic Recovery ^c @ 10 C , percent	65	---

^aAll tests shall be performed in accordance with AASHTO T-59 except as noted.

^bAASHTO T59 shall be modified to maintain a 177 ± 5 C maximum temperature to be held for 20 minutes. Complete the total distillation in 60 ± 5 minutes from the first application of heat.

^cElastic recovery shall be determined as follows. Condition the ductilometer and samples to be treated at 10 C. Prepare the brass plate, mold, and briquet specimen in accordance with AASHTO T 51. Keep the specimen at the specified test temperature of 10 C for 85 to 95 minutes. Immediately after conditioning, place the specimen in the ductilometer and proceed to elongate the sample to 20 cm at a rate of pull of 5 cm/min. After the 20 cm elongation has been reached, stop the ductilometer and hold the sample in the elongated position for 5 minutes. After the 5 minutes, clip the sample approximately in half by means of scissors or other suitable cutting devices. Let the sample remain in the ductilometer in an undisturbed condition for one hour. At the end of this time period, retract the half sample specimen until the two broken ends touch. At this point note the elongation recovery (X) in cm. Calculate the percent recovery by the following formula:

$$\% \text{ Recovery} = \frac{20 - X}{20} \times 100$$

Amend Sec 1015.20.5.1.1 to include the following:

1015.20.5.1.1 Polymer Modified Asphalt Emulsion – Tack Coat. Bituminous material for polymer modified asphalt shall be in accordance with the following:

Slow Setting Polymer Modified Asphalt Emulsion ^a					
		SS-1HP		CSS-1HP	
Test on Emulsion	Method	Min	Max	Min	Max
Viscosity, Saybolt Furol @ 25°C (77°F), s	AASHTO T 59	20	100	20	100
Particle Charge Test		Negative		Positive	
Storage Stability Test ^b , 24 hr, percent	AASHTO T 59	--	1	--	1
Sieve Test, percent	AASHTO T 59	--	0.50	--	0.50
Residue by Distillation ^c , percent	AASHTO T 59	57		57	
Oil Distillate by Distillation, percent	AASHTO T 59	--	--	--	--
Test on Residue from Distillation					
Penetration 25°C, 100 g, 5 s	AASHTO T 49	40	90	40	90
Elastic Recovery ^d , 20 cm, 5 cm/min, 60 min, %	AASHTO T 301	30	--	30	--
Solubility in Trichloroethylene ^e , %	AASHTO T 44	97.5	--	97.5	--

^a The emulsified asphalt shall be in accordance with Section 1015.20.5 of the 2011 Missouri Standard Specifications for Highway Construction, except as indicated above, and shall be modified with a styrene-butadiene diblock or triblock copolymer or a styrene butadiene rubber.

^b In addition to AASHTO T 59, upon examination of the test cylinder, and after standing undisturbed for 24 hours, the surface shall show no appreciable white, milky colored substance and shall be homogeneous brown color throughout. The storage stability test may be waved provided the asphalt emulsion storage tank at the project site has adequate provisions for circulating the entire contents of the tank, provided satisfactory field results are obtained.

^c AASHTO T 59 shall be modified to use a lower distillation temperature of 177° C (350° F).

^d AASHTO T 301 shall be modified to allow the residue to be obtained from distillation as long as the distillation temperature is modified as stated above. The test on residue shall be conducted at a temperature of 10° C (50° F).

^e In lieu of performing AASHTO T 44, AASHTO T 111, Ash in Bituminous Material, may be performed with a maximum allowable percent ash of 1.0 percent.

F. SAFETY PLAN (Version – 10/2012)

1.0 Description. This contractor shall submit to the engineer a project Safety Plan (SP) for all work performed by the contractor and all subcontractors. The purpose of the SP is to encourage and enable all work to be performed in the safest possible manner and that all parties involved are aware of their individual responsibility for safety on the jobsite.

1.1 The SP shall be completed by the contractor and provided to the engineer prior to the beginning of any construction activity or phase on the project.

1.2 The contractor shall designate a person to serve as Project Safety Manager (PSM). The PSM shall be responsible for implementing and overseeing the SP. The PSM is not

required to be present on the project at all times, but must be available to address safety issues and needs.

1.3 The PSM shall make revisions to the SP as necessary. Any new project activities or phases shall be included in the SP prior to work beginning on that activity or phase.

1.4 An example Safety Plan is available at:

http://www.modot.mo.gov/business/contractor_resources/bid_opening_info/bidGenInfo.shtml

2.0 Emergency Preparedness. The SP shall outline and detail for all workers, the specific procedures and actions necessary to respond to a jobsite emergency and the measures taken to communicate these requirements to all workers.

2.1 The SP shall include a list of local emergency contacts including phone numbers. A copy of the emergency contact list shall be accessible to workers.

2.2 In the case where there is no cellular or land line phone service at the jobsite, the SP shall identify how to reach the nearest available phone service.

3.0 Project Safety Analysis. The SP should contain a basic Project Safety Analysis (PSA) that outlines the actions necessary to complete each activity or phase of the project. The SP shall include a general description of the primary activities or steps required to safely complete the project.

3.1 Each activity should also include a general description of the work involved along with the known risks associated with the activity. In addition the PSA should outline the controls for those risks, including any Personal Protection Equipment (PPE) requirements for that activity or phase, and whether or not the activity or phase requires a specific safety meeting prior to beginning the activity or phase.

3.2 Submittal of the PSA for all activities or phases is not required with the initial submittal of the SP; however, the PSA for each activity or phase shall be completed prior to the beginning of that activity or phase.

4.0 Safety Meetings. The SP shall include the types of safety meetings that will be required of and conducted by the contractor.

5.0 Safety Training. The SP shall identify the required safety training provided to the contractor's personnel. The contractor shall require that the appropriate safety training for the contractor's personnel is completed prior to the beginning of work on each activity or phase.

5.1 The SP shall identify the recommended safety training needs and PPE for MoDOT employees who will be exposed to the work activities. MoDOT will provide safety training and PPE to MoDOT employees based on MoDOT safety policies.

6.0 Payment. There will be no direct payment for compliance with this Safety Plan provision.

G. PROTECTION OF BNSF RAILWAY INTERESTS – BRIDGES A2431 & A2432

To Report an Emergency on the railroad call: (800) 832-5452

The grade separated railroad crossing, Platte County at DOT# 079 381M, Milepost 6.22 and 079 380F, Milepost 6.18.

1.0 Authority of Railroad Engineer and Commission's Representative.

1.1 The authorized representative of BNSF Railway Company, herein called "Railroad Engineer", shall have final authority in all matters affecting the safe maintenance and operation of railroad traffic including the adequacy of the foundations and structures supporting the railroad tracks.

1.2 The authorized representative of the Missouri Highways and Transportation Commission, herein called "Engineer", shall have authority over all other matters as prescribed herein and in the project specifications.

2.0 Contractor's indemnity Obligations to the Railroad.

2.1 The term "contractor" as used in this special provision includes any and all subcontractors. The contractor shall indemnify, defend and hold harmless the Railroad from and against any and all loss, damage, claims, demands, causes of action, costs and expenses of whatsoever nature arising out of injury to or death of persons whomsoever, or out of damage to or destruction of property whatsoever, including, without limitation, damage to fiber optic, communication and other cable lines and systems, where such injury, death, damage or destruction results from any cause arising out of work performed by the contractor pursuant to the agreement between Railroad and the Commission for the project, and shall also release the Railroad from and shall waive any claims for injury or damage to equipment or other property, which may result from the construction, maintenance and operation of railroad tracks, wire lines, fiber optic cable, pipe lines and other facilities on said right of way of the Railroad by the contractor. **THE LIABILITY ASSUMED BY THE CONTRACTOR WILL NOT BE AFFECTED BY THE FACT, IF IT IS A FACT, THAT THE DAMAGE, DESTRUCTION, INJURY, DEATH, CAUSE OF ACTION OR CLAIM WAS OCCASIONED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF THE RAILROAD, THE RAILROAD'S AGENTS, SERVANTS, EMPLOYEES OR OTHERWISE, EXCEPT TO THE EXTENT THAT SUCH CLAIMS ARE PROVEN BY ANY CLAIMANT TO HAVE BEEN PROXIMATELY CAUSED BY THE INTENTIONAL MISCONDUCT OR SOLE OR GROSS NEGLIGENCE OF THE RAILROAD.** The contractor's indemnity shall include loss of profits or revenue arising from damage or destruction to fiber optic, communication and other cable lines and systems.

2.2 In addition to the indemnity obligations contained in the preceding paragraph, the contractor shall indemnify, defend and hold harmless the Railroad from any claims, expenses, costs, actions, demands, losses, fines, penalties, and fees, of whatsoever nature arising from, related to or connected, in whole or in part, with the following:

- (a) The removal of the contractor's agents, servants, employees or invitees from the Railroad's property for safety reasons.

(b) Contractor's compliance or failure to comply with the provision of applicable law in connection with the performance of contractor's work.

3.0 Notice of Starting Work.

3.1 The contractor shall not commence any work on Railroad's right of way until the contractor has complied with the following conditions:

(a) At least 30 days in advance of the date the contractor proposes to begin work on Railroad's right of way, the contractor shall give the Railroad written notice to the address below with copy to the Engineer who has been designated to be in charge of the work.

Ms. Cheryl Townlian
Manager of Public Projects
BNSF
3253 E. Chestnut Expressway
Springfield, Missouri 65802

(b) Obtain written or electronic authorization from the Railroad to begin work on the Railroad's right of way, such authorization to include an outline of specific conditions with which contractor shall comply.

(c) Obtain the insurance coverage required in Section 12.0 of this job special provision. Contractor shall submit written evidence of such coverage to Railroad prior to commencing any work.

(d) Prior to performing any work on Railroad's property, right-of way or in an area that may impact Railroad's operations, the contractor's employees, representatives or agents who are regularly assigned to perform work on the project shall complete the safety orientation training available on the internet at www.contractororientation.com, hereinafter called, "Internet Safety Orientation". If the contractor's employee, representative or agent is not regularly assigned to perform work on the project, hereinafter called "Flexible Worker(s)", the contractor shall ensure that any Flexible Worker receives appropriate safety training prior to performing any work on the Railroad's property, right-of way or in an area that may impact the Railroad's operations. The content of safety training for Flexible Workers shall include the information covered in the Internet Safety Orientation. The approximate cost of the Internet Safety Orientation is \$11 per person, subject to annual escalation.

3.2 The Railroad's written authorization to proceed with the work, with a copy to the Engineer, will include the names, addresses and telephone numbers of the Railroad's representatives who are to be notified as hereinafter required. Where more than one representative is designated, the area of responsibility of each representative shall be specified.

4.0 Interference with Railroad Operations.

4.1 The contractor shall arrange and conduct all work so that there shall be no interference with the Railroad's operations, including train, signal, telephone and telegraphic services; or damage to the Railroad's property; poles, wires and other facilities of tenants, licensees, easement

grantees and invitees on the Railroad's right of way. Whenever work may affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad Engineer for approval, but such approval shall not relieve the contractor from liability. Any work to be performed by the contractor that requires flagging service or inspection service shall be deferred by the contractor until the flagging service required by the Railroad is available at the job site.

4.2 Whenever work within the Railroad's right of way is of such a nature that impediment to the Railroad's operations is unavoidable, such as use of runaround tracks or necessity for reduced speed, the contractor shall schedule and conduct these operations so that such impediment is reduced to the absolute minimum.

4.3 Should conditions arising from, or in connection with the work require that immediate and unusual provisions be made to protect the Railroad's operations and property, the contractor shall make such provisions. If in the judgment of the Railroad Engineer, or the Engineer if the Railroad Engineer is absent, such provision is insufficient, the Railroad Engineer or Engineer may require or provide such provisions as deem necessary. In any event, such provisions shall be at the contractor's expense and without cost to the Railroad or the Commission.

4.4 The contractor shall be responsible for any damage to the Railroad as a result of work on the project, which shall include but not be limited to interference with the normal movement of trains caused exclusively by the work performed by the contractor. The contractor shall be responsible for damages for the Railroad's train delays that are caused exclusively by the contractor. The Railroad agrees not to perform any act to unnecessarily cause any train delay. The damages for train delays per freight hour will be billed at an average rate per hour as determined from the Railroad's records. These records shall be provided by the Railroad, upon request, to the Commission or the Commission's contractor.

5.0 Track Clearances.

5.1 The minimum track clearances to be maintained by the contractor during construction are shown on the project plans. However, before undertaking any work within Railroad's right of way, or before placing any obstruction over any track, the contractor shall:

- (a) Notify the Railroad Engineer at least 72 hours in advance of the work.
- (b) Receive assurance from the Railroad Engineer that arrangements have been made for flagging service as may be necessary.
- (c) Receive permission from the Railroad Engineer to proceed with the work.
- (d) Ascertain that the Engineer has received copies of notice to the Railroad and of the Railroad's response.

5.2 The contractor shall fully comply with any horizontal and vertical clearance requirements imposed by Missouri state statutes and regulations and Federal statutes and regulations regarding the placement of structures or equipment near or over railroad tracks.

6.0 Construction Procedures.

6.1 General. Construction work on the Railroad's property shall be:

- (a) Subject to the inspection and review of the Railroad.
- (b) In accordance with the Railroad's written outline of specific conditions.
- (c) In accordance with this special provision.

6.2 Maintenance of Railroad Facilities. The contractor shall be required to maintain all ditches and drainage structures free of silt or other obstructions which may result from contractor's operations. The contractor shall promptly repair eroded areas within Railroad's right of way and repair any other damage to the Railroad's property, tenants, licensees, easement grantees and invitees. All such maintenance and repair of damages due to the contractor's operations shall be done at the contractor's expense.

6.3 Storage of Materials and Equipment.

6.3.1 The contractor shall not store or stockpile construction materials or equipment closer than 25 feet to the centerline of the nearest railroad track or on the Railroad's property not covered by construction easement, contractor's permit, lease or agreement. Additionally, the contractor shall not store or leave materials or equipment within 250 feet of the edge of any highway/rail at-grade crossings. Further, both sides of a main track shall remain unobstructed for a distance of 10 feet from the exterior edge of the track at all times to allow for stopped train inspection.

6.3.2 Machines or vehicles shall not be left unattended with the engine running. Parked machines or equipment shall be in gear with brakes set and with blade, pan or bucket lowered to the ground if so equipped. All grading or construction machinery that is left parked near the track unattended shall be effectively immobilized so that unauthorized persons cannot move such equipment.

6.4 Cleanup. Upon completion of the work, the contractor shall remove from within the limits of the Railroad's right of way, all machinery, equipment, surplus materials, falsework, rubbish or temporary buildings of the contractor, and leave said right of way in a neat condition satisfactory to the Railroad Engineer.

6.5 Buried Cable and Other Buried Facilities.

6.5.1 The contractor is placed on notice that fiber optic, communication and other cable lines and systems, collectively the "Lines", owned by various telecommunications companies may be buried on Railroad's property or right of way. The locations of the buried Lines, pipelines or utility facilities have been included on the plans based on information from the telecommunications companies, pipeline operators, or utilities, as the case may be. The contractor shall be responsible for contacting the Railroad Engineer, the Railroad's 24-hour information number (1-800-533-2891), the telecommunications companies, pipeline operators and utilities and notifying them of any work that may damage the buried Lines, pipelines, utility facilities and/or interfere with their service. The contractor shall verify the location of all buried Lines, pipelines and utility facilities shown on the plans or marked in the field in order to establish their exact locations prior to or while doing work on the Railroad's property or right of way. The contractor shall also use all reasonable methods when working on the Railroad's property or right of way to determine if any other buried Lines, pipelines or utility facilities exist on the Railroad's property or right of way.

6.5.2 Failure to mark or identify the buried Lines, pipelines or utility facilities will be sufficient cause for the Railroad Engineer to stop construction at no cost to the Commission or Railroad until these items are completed. The contractor shall be responsible for the rearrangement of any buried facilities, Lines, pipelines or utility facilities determined to interfere with the construction. The contractor shall cooperate fully with any telecommunications companies, pipeline operators and utility facility owners in performing such rearrangements.

7.0 Damages. The Railroad will not assume liability for any damages to the contractor, contractor's work, employees, servants, equipment and materials caused by railroad traffic. Any cost incurred by the Railroad for repairing damages to Railroad's property or to property of the Railroad's tenants, licensees, easement grantees and invitees caused by or resulting from the contractor's operations shall be paid directly to the Railroad by contractor.

8.0 Haul Across Railroads.

8.1 Where the plans show or imply that materials of any nature must be hauled across the Railroad's tracks, unless the plans clearly show that the Commission has included arrangements for such haul in the agreement with the Railroad, the contractor shall be required to make all necessary arrangements with the Railroad regarding means of transporting such materials across the Railroad's tracks. The contractor shall be required to bear all costs incidental to such crossings, including flagging, whether services are performed by contractor's own forces or by Railroad's personnel.

8.2 No crossing may be established for use of the contractor for transporting materials or equipment across the tracks of the Railroad unless specific authority for the installation, maintenance, necessary watching and flagging thereof and removal, all at the expense of the contractor, is first obtained from the Railroad Engineer.

9.0 Work for the Benefit of the Contractor. All temporary or permanent changes in wire lines or other facilities which are considered necessary to the project are shown on the plans, and are included in the agreement between the Commission and the Railroad or will be covered by appropriate revisions to same which will be initiated and approved by the Commission and/or the Railroad. Should the contractor desire any changes in addition to the above, then contractor shall make separate arrangements with the Railroad for same to be accomplished at the contractor's expense.

10.0 Cooperation and Delays. The contractor shall arrange a schedule with the Railroad for accomplishing staged construction involving work by the Railroad or tenants, licensees, easement grantees and invitees of the Railroad. In arranging a schedule, the contractor shall ascertain, from the Railroad, the lead time required for assembling crews, materials and make due allowance. No charge of claims of the contractor against the Railroad will be allowed for hindrance or delay on account of railway traffic for any work done by the Railroad, other delay incident to or necessary for safe maintenance of railway traffic, or for any delays due to compliance with this special provision.

11.0 Trainman's Walkways. Along the outer side of each exterior track of multiple operated track and on each side of single operated track, an unobstructed continuous space suitable for trainman's use in walking along trains shall be maintained extending to a line not less than 12 feet from centerline of track. Any temporary impediments to walkways and track drainage encroachments or obstructions allowed during work hours while Railway's protective service is provided shall be removed before the close of each work day. Any excavation near the

walkway, the contractor shall install a handrail with a 12 feet minimum clearance from centerline of track.

12.0 Insurance. The amount of work to be performed upon, over or under Railroad's right of way is estimated to be **1 percent** of the contractor's total bid for the project.

12.1 In addition to any other forms of insurance or bonds required under the terms of the contract and specifications, Contractor must, at its sole cost and expense, procure and maintain during the life of this Agreement the following insurance coverage:

(a) Commercial General Liability insurance. This insurance shall contain broad form contractual liability with a combined single limit of a minimum of \$2,000,000 each occurrence and an aggregate limit of at least \$4,000,000 but in no event less than the amount otherwise carried by the contractor. Coverage must be purchased on a post 2004 ISO occurrence form or equivalent and include coverage for, but not limit to the following:

- Bodily Injury and Property Damage
- Personal Injury and Advertising Injury
- Fire legal liability
- Products and completed operations

This policy must also contain the following endorsements, which must be indicated on the certificate of insurance:

- The definition of insured contract must be amended to remove any exclusion or other limitation for any work being done within 50 feet of railroad property.
- Waiver of subrogation in favor of and acceptable to Railway.
- Additional insured endorsement in favor of and acceptable to Railway.
- Separation of insureds.
- The policy shall be primary and non-contributing with respect to any insurance carried by Railway.

It is agreed that the workers' compensation and employers' liability related exclusions in the Commercial General Liability insurance policy(s) required herein are intended to apply to employees of the policy holder and shall not apply to Railway employees.

No other endorsements limiting coverage as respects obligations under this Agreement may be included on the policy with regard to the work being performed under this agreement.

(b) Business Automobile Insurance. This insurance must contain a combined single limit of at least \$1,000,000 per occurrence, and include coverage for, but not limited to the following:

- Bodily injury and property damage
- Any and all vehicles owned, used or hired

The policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

- Waiver of subrogation in favor of and acceptable to Railway.
- Additional insured endorsement in favor of and acceptable to Railway.
- Separation of insureds.
- The policy shall be primary and non-contributing with respect to any insurance carried by Railway.

(c) Workers Compensation and Employers Liability insurance including coverage for, but not limited to:

- Contractor's statutory liability under the worker's compensation laws of the state(s) in which the work is to be performed. If optional under State law, the insurance must cover all employees anyway.
- Employers' Liability (Part B) with limits of at least \$500,000 each accident, \$500,000 by disease policy limit, \$500,000 by disease each employee.

This policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

- Waiver of subrogation in favor of and acceptable to Railway.

(d) Railroad Protective Liability insurance naming only the Railway as the Insured with coverage of at least \$2,000,000 per occurrence and \$6,000,000 in the aggregate. The policy Must be issued on a standard ISO form CG 00 35 10 93 and include the following:

- Endorsed to include the Pollution Exclusion Amendment (ISO form CG 28 31 10 93)
- Endorsed to include the Limited Seepage and Pollution Endorsement.
- Endorsed to remove any exclusion for punitive damages.
- No other endorsements restricting coverage may be added.
- The original policy must be provided to the Railway prior to performing any work or services under this Agreement

In lieu of providing a Railroad Protective Liability Policy, Licensee may participate in Licensor's Blanket Railroad Protective Liability Insurance Policy available to contractor.

12.2 Other Requirements:

12.2.1 All policies (applying to coverage listed above) must not contain an exclusion for punitive damages and certificates of insurance must reflect that no exclusion exists.

12.2.2 Contractor agrees to waive its right of recovery against Railway for all claims and suits against Railway. In addition, its insurers, through the terms of the policy or policy endorsement, waive their right of subrogation against Railway for all claims and suits. The certificate of insurance must reflect the waiver of subrogation endorsement. Contractor further waives its right of recovery, and its insurers also waive their right of subrogation against Railway for loss of its owned or leased property or property under contractor's care, custody or control.

Job No.: J413020C
Route: I-635
County: Platte

12.2.3 Contractor is not allowed to self-insure without the prior written consent of Railway. If granted by Railway, any deductible, self-insured retention or other financial responsibility for claims must be covered directly by contractor in lieu of insurance. Any and all Railway liabilities that would otherwise, in accordance with the provisions of this Agreement, be covered by contractor's insurance will be covered as if contractor elected not to include a deductible, self-insured retention or other financial responsibility for claims.

12.2.4 Prior to commencing the Work, contractor must furnish to Railway an acceptable certificate(s) of insurance including an original signature of the authorized representative evidencing the required coverage, endorsements, and amendments and referencing the contract audit/folder number if available. Contractor shall notify Railway in writing at least 30 days prior to any cancellation, non-renewal, substitution or material alteration. Upon request from Railway, a certified duplicate original of any required policy must be furnished. Contractor should send the certificate(s) to the following address:

Railroad:
BNSF Railway Company
P.O. Box 140528
Kansas City, MO 64114
Toll Free: 877-576-2378
Fax number: 817-840-7487
Email: BNSF@certfocus.com
www.certfocus.com

Commission:
Mr. Dave Ahlvers
State Construction and Materials Engineer
MoDOT
P.O. Box 270
Jefferson City, MO 65102

12.2.5 Any insurance policy must be written by a reputable insurance company acceptable to Railway or with a current Best's Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the service is to be provide.

12.2.6 Contractor represents that this Agreement has been thoroughly reviewed by contractor's insurance agent(s)/broker(s), who have been instructed by contractor to procure the insurance coverage required by this Agreement. Allocated Loss Expense must be in addition to all policy limits for coverages referenced above. Not more frequently than once every five years, Railway may reasonably modify the required insurance coverage to reflect then-current risk management practices in the railroad industry and underwriting practices in the insurance industry.

12.2.7 If any portion of the operation is to be subcontracted by contractor, contractor must require that the subcontractor provide and maintain the insurance coverages set forth herein, naming Railway as an additional insured, and requiring that the subcontractor release, defend and indemnify Railway to the same extent and under the same terms and conditions as contractor is required to release, defend and indemnify Railway herein.

12.2.8 Failure to provide evidence as required by this section will entitle, but not require, Railway to terminate this Agreement immediately. Acceptance of a certificate that does not comply with this section will not operate as a waiver of contractor's obligations hereunder.

12.2.9 The fact that insurance (including, without limitation, self-insurance) is obtained by contractor will not be deemed to release or diminish the liability of contractor including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by Railway will not be limited by the amount of the required insurance coverage.

Job No.: J413020C
Route: I-635
County: Platte

12.2.10 For purposes of this section, Railway means “Burlington Northern Santa Fe LLC”, “BNSF RAILWAY COMPANY” and the subsidiaries, successors, assigns and affiliates of each.

12.2.11 Railroad will not accept binders as evidence of insurance, the original policy shall be provided. The named insured, description of the work and designation of the job site to be shown on the Policy are as follows:

- (a) Named Insured: BNSF Railway Company
- (b) Description and Designation:
 - Erosion Repair
 - Route 635, Platte County
 - Job No. J413020C
 - BNSF St. Joseph Sub
 - DOT# 079 381M MP 6.22 & 079 380F MP 6.18

12.2.12 The contractor must notify BNSF Manager of Public Projects at Cheryl.Townlian@bnsf.com when applying for railroad insurance coverage.

12.3 If any part of the work is sublet, similar insurance and evidence thereof in the same amounts as required of the prime contractor, shall be provided by or in behalf of the subcontractor to cover the subcontractor’s operations. Endorsements to the prime contractor’s policies specifically naming subcontractors and describing their operations will be acceptable for this purpose.

12.4 All Insurance hereinbefore specified shall be carried until all work required to be performed under the terms of the contract has been satisfactorily completed within the limits of the Railroad’s right of way as evidenced by the formal acceptance by the Commission. Insuring Companies may cancel insurance by permission of the Commission and Railroad or on 30 days written notice to the Railroad and Commission.

13.0 Hazardous Materials Compliance and Reporting. Contractor shall be responsible for complying with all applicable federal, state and local governmental laws and regulations, including, but not limited to environmental laws and regulations (including but not limited to the Resource Conservation and Recovery Act, as amended; the Clean Water Act, as amended; the Oil Pollution Act, as amended; the Hazardous Materials Transportation Act, as amended; and the Comprehensive Environmental Response, Compensation and Liability Act, as amended), and health and safety laws and regulations. In addition to the liability provisions contained elsewhere in this job special provision, the contractor hereby indemnifies, defends and holds harmless the Railroad for, from and against all fines or penalties imposed or assessed by federal, state and local governmental agencies against the Railroad which arise out of contractor’s work under this special provision. Notwithstanding the preceding sentence, the contractor will not be liable for pre-existing hazardous materials or hazardous substances discovered on Railroad’s property or right of way so long as such hazardous materials or hazardous substances were not caused by (in whole or in part) contractor’s work, acts or omissions. If contractor discovers any hazardous waste, hazardous substance, petroleum or other deleterious material, including but not limited to any non-containerized commodity or material, on or adjacent to Railroad’s property, in or near any surface water, swamp, wetlands or waterways, while performing any work under this special provision, the contractor shall immediately:

- (a) Notify the Railroad’s Resource Operations Center at (800) 832-5452, of such discovery.
- (b) Take safeguards necessary to protect employees, subcontractors, agents and/or third parties.
- (c) Exercise due care with respect to the release, including the taking of any appropriate measure to minimize the impact of such release

14.0 Personal Injury Reporting. The Railroad is required to report certain injuries as a part of compliance with Federal Railroad Administration (“FRA”) reporting requirements. Any personal injury sustained by any employee of the contractor, subcontractor or contractor’s invitees while on the Railroad’s property shall be reported immediately, by phone or mail if unable to contact in person, to the Railroad’s representative in charge of the project. The Non-Employee Personal Injury Data Collection Form is to be completed and sent by Fax to the Railroad at (817) 352-7595 and to the Railroad’s Project Representative no later than the close of shift on the date of the injury.

15.0 Failure to Comply. In the event the contractor violates or fails to comply with any of the requirements of this special provision, the below orders will be applied. Any such orders shall remain in effect until the contractor has remedied the situation to the satisfaction of the Railroad Engineer and the Engineer.

- (a) The Railroad Engineer may require that the contractor to vacate the Railroad’s property.
- (b) The Engineer may withhold all monies due to the contractor until contractor has remedied the situation to the satisfaction of the Railroad Engineer and the Engineer.

16.0 Payment for Cost of Compliance. No separate payment will be made for any extra cost incurred on account of compliance with this special provision. All such cost shall be included in the contract unit price for other items included in the contract. Railroad will not be responsible for paying the contractor for any work performed under this special provision.

H. URBAN SEEDING RECOMMENDATION

Within the first 30 feet or the mow area

Blue gramma	15 lbs
Annual ryegrass	5 lbs
Buffalo grass	10 lbs
Oats	15 lbs
TOTAL	45 lbs/acre

Outside the first 30 feet and slopes steeper than 3:1

Little Bluestem	6 lbs.
Sideoats grama	6 lbs.
Canada or Virginia rye	2 lbs.
Prairie dropseed or tall dropseed	0.5 lbs.
Annual ryegrass	10 lbs
Oats	10 lbs
Perennial rye	10 lbs
White clover	5 lbs.
Lanceleaf Coreopsis	0.25 lbs.
Black-eyed Susan	0.25 lbs.
TOTAL	50 lbs/acre

I. FLUME DRAIN

1.0 Description. This work shall consist of installing a flume drain, as shown on the plans or as directed by the engineer, for the purposes of routing runoff water to the toe of the embankment slope to prevent erosion.

2.0 Material Requirements.

2.1 Type I Rock Ditch Liner shall be in accordance with Sec 609.

2.2 Geotextile Fabric shall be in accordance with Sec 1011.

3.0 Construction Requirements. Unless otherwise specified in the plans, the rock portion of the flume drains shall be constructed of Type 1 Rock Ditch Liner, 3' in width and 8" thick, with a 6" depression to allow for channelization of the flow.

4.0 Basis of Payment. The accepted quantity of flume drains, complete in place, will be paid at the contract unit price per each, 609-99.02, Misc. Flume Drain, and will be full compensation for all labor, equipment, and material to complete the described work including, but not limited to, the grading, saw cutting around the concrete gutter, pouring of the concrete gutter, rock flume slope, geotextile fabric, and the rock basin at the toe of the slope. The approximate length of each flume drain is provided in the plans for information only and will not be measured for payment.

J. PROJECT CONTACT FOR CONTRACTOR/BIDDER QUESTIONS

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

Mark Sommerhauser, Project Contact
Kansas City District
MoDOT, 600 NE Colbern Road
Lee's Summit, MO 64086

Telephone Number 816-607-2243
e-mail Karsten.Sommerhauser@modot.mo.gov

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



K. QUALITY MANAGEMENT (Version - 10/2013)

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

1.1 The contractor shall provide all Quality Control (QC) of the work and material. Contractor QC staff shall hold the primary responsibility for ensuring all work and material is in compliance with contract requirements. QC staff shall perform and document all inspection and testing. The QC inspectors and testers may be employed by the contractor, sub-contractor, or a qualified professional service hired by the contractor.

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

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

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

2.0 Quality Management Plan. The contractor shall develop, implement and maintain a Quality Management Plan (QMP) that will ensure the project quality meets or exceeds all contract requirements, and provides a record for acceptance of the work and material.

2.1 The QMP shall address all QC inspection and testing requirements of the work as described herein. A draft QMP shall be submitted to the Resident Engineer for review at least two weeks prior to the pre-construction conference.

2.2 Physical work on the project shall not begin prior to approval of the QMP by the engineer. The approved QMP shall be considered a contract document and any revisions to the QMP will require approval from the engineer.

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

- a) General organizational structure of the contractor's production and QC staff.**
- b) Name, qualifications and job duties of the Quality Manager.**
- c) A list of all certified QC testers who will perform QC duties on the project, including sub-contract work, and the areas of testing in which they are certified.**
- d) A list of all QC inspectors who will perform inspection duties on the project, including sub-contract work, and the areas of inspection that they will be assigned.**
- e) A Document Control Procedure for verifying documentation is accurate and complete as described in Section 3.**
- f) A procedure describing QC Inspections as outlined in Section 4.**
- g) A procedure describing QC Testing, as outlined in Section 5, including a job specific Inspection and Test Plan (ITP).**
- h) A procedure describing Material Receiving as outlined in Section 6.**
- i) A list of Hold Points as outlined in Section 8.**
- j) A procedure for documenting and resolving Non-Conforming work as described in Section 9.**
- k) A procedure for tracking revisions to the QMP.**
- l) A list of any approved changes to the Standard Specifications or ITP, including a reference to the corresponding change order.**
- m) Format for the Weekly Schedule and Work Plans as described in Section 10, including a list of activities that will require pre-activity meetings.**

3.0 Project Documentation. The contractor shall establish a Document Control Procedure for producing and uploading the required Quality Management documents to a web-based electronic storage site provided by MoDOT (Microsoft SharePoint), or to an alternate storage site provided by the contractor and approved by the engineer. This process will allow efficient sharing of documents among authorized users. Any proposed alternate site must provide equal or better efficiency in document sharing as the MoDOT provided site. If an alternate site is utilized, upon completion of the project the contractor shall provide all files to the engineer on an approved electronic media.

3.1 The contractor shall utilize a file naming system that allows efficient location of documents. The file naming system for each folder should be shown in the QMP.

3.2 Documents (standard forms, reports, and checklists) referenced throughout this provision are considered the minimum documentation required. They shall be obtained from MoDOT at the following web address: <http://www.modot.org/quality>. The documents provided by MoDOT are required to be used in the original format, unless otherwise approved by the engineer. Contractor-altered versions may be allowed in some cases; however, many of these forms must remain in the original format in order to simplify data entry into SiteManager (MoDOT's internal project management system).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

9.0 Non-Conforming Work. Non-conforming work is defined as work that does not meet the contract requirements. The contractor shall establish a procedure for identifying and resolving non-conforming work as well as tracking the status of the reports.

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

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

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

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

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

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

Job No.: J413020C

Route: I-635

County: Platte

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

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

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