



MISSOURI ASPHALT PAVEMENT ASSOCIATION

**SAMPLE BIDDING  
DOCUMENTS &  
SPECIFICATIONS**

## **Table of Contents**

- 1.0 Advertisement for Bid
  - 1.1 Notice of Bid
  - 1.2 Scope
  - 1.3 Plans & Contract Documents
  - 1.4 Pre-Bid
  - 1.5 Project Questions
- 2.0 Introduction and General Conditions of Bidding
  - 2.1 Inspection of Plans, Specifications and Site of Work
  - 2.2 Qualification of Bidders
  - 2.3 Bid Security
  - 2.4 Preparation of Bids
  - 2.5 Addendums
  - 2.6 Submission of Bids
  - 2.7 Withdrawal of Bids
  - 2.8 Right to Reject Bids
  - 2.9 Award of Contract
  - 2.10 Performance Bond
  - 2.11 Insurance
  - 2.12 Prevailing Wage Law
  - 2.13 Notice to Proceed
  - 2.14 Schedule of Work
  - 2.15 Contract Time
  - 2.16 Liquidated Damages
  - 2.17 DBE Participation
  - 2.18 Asphalt Index
- 3.0 Definitions
- 4.0 Primary Specifications
  - 4.1 General Provisions
  - 4.2 Job Special Provisions
  - 4.3 Technical Specifications
- 5.0 Itemized Proposal

## **1.0 Advertisement for Bids**

1.1 The (insert entity seeking procurement) will receive bids for (insert project name), (insert entity), all in accordance with the contract documents and specifications. Bids will be received (insert bid date and time, location of bid opening). Bids will be publicly opened at (insert bid time), at (insert location of bid opening). Bids received after that time will be returned unopened.

1.2 The work will consist of (insert scope of project).

1.3 Contract documents are on file and may be examined at (insert project viewing location) or may be purchased at (insert location plans can be purchased).

1.4 A pre-bid meeting will be held at (insert pre-bid meeting date and time, location of pre-bid opening).

1.5 All project questions shall be submitted (insert project contact information) by (insert last date to submit bid question prior to bid opening).

## **2.0 Introduction and General Conditions of Bidding**

### **2.1 Inspection of Plans, Specifications, and Site of Work**

The bidder is required to carefully examine the site of the proposed work, the proposal, plans, specifications, supplemental specifications, special provisions, and contract forms before submitting a proposal.

### **2.2 Qualifications of Bidders**

The *(insert entity)* may make such investigations as deemed necessary to determine the ability of the bidder to perform the work and the bidder shall furnish to the *(insert entity)* all such information and data for this purpose as the *(insert entity)* may request. The *(insert entity)* reserves the right to reject any bid if the evidence submitted by the bidder or investigation of such bidder fails to satisfy the *(insert entity)* that such bidder is properly qualified to carry out the obligations of the Contract and to complete the work contemplated therein.

### **2.3 Bid Security**

Each bid must be accompanied by a certified check or bid bond made payable to *(insert entity)* for five percent (5%) of the amount of the bid. Bid securities will be returned after award of contract except to the successful bidder.

Should the successful bidder or bidders fail or refuse to execute the bond and the contract required within ten (10) days after he has received Notice of Acceptance of his bid, he shall forfeit to the

(insert entity) as liquidated damages for such failure or refusal, the security deposited with his bid.

## **2.4 Preparation of Bids**

Bid must be made upon prescribed forms attached at the back of these Specifications. Only sealed bids will be considered, all bids otherwise submitted will be rejected as irregular.

All blank spaces in the bid must be filled in and no change shall be made in the phraseology of the bid or addition to the items mentioned therein. Any conditions, limitations, or provisions attached to bids will render them informal and may be considered cause for their rejection.

## **2.5 Addendum**

Addendums may be issued on this project at any time up to (insert number of days) prior to the bid date and time. Occasionally an addendum may contain information that could affect a contractor's bid. It shall be the responsibility of the contractor to verify if any addendum has been issued prior to submitting their bid. The (insert entity) assumes no liability if a contractor fails to incorporate addenda into their bid.

## **2.6 Submission of Bids**

The Bid and the Bid Security guaranteeing the same shall be placed in a sealed opaque envelope and marked with the project name, project number, and the bidder's name and address.

## **2.7 Withdrawal of Bids**

If a bidder wishes to withdraw his bid, he may do so before the time fixed for the opening, without prejudice to himself.

## **2.8 Right to Reject Bids**

The (insert entity) reserves the right to reject any or all bids, to waive any informality in the bids received, or to accept the bid or bids that in its judgment will be for the best interest of the (insert entity).

## **2.9 Award of Contract**

If within ten (10) days after he has received Notice of Acceptance of his bid, the successful bidder or bidders shall refuse or neglect to come to the office (insert entity) and to execute the Contract and to furnish the required Contractor's Bond, properly signed by the Contractor and the Surety or Sureties satisfactory to the (insert entity) as hereinafter provided, the bidder or bidders shall be deemed to be in default and shall forfeit the deposit.

## **2.10 Performance Bond**

A Performance Bond in an amount equivalent to one hundred percent (100%) of the Contract price,

must be furnished and executed by the successful bidder or bidders, this bond to be in the form contained in this Contract.

The Surety shall be a corporate Surety Company or companies of recognized standing licensed to do business in the state of Missouri and acceptable to the (insert entity).

## **2.11 Insurance**

The Contractor shall be required to provide the (insert entity) with a "Certificate of Insurance."

## **2.12 Prevailing Wage Law**

(Insert language about prevailing wage is required)

## **2.13 Notice to Proceed**

The contractor's notice to proceed for each road will be as follows (insert date of notice to proceed)

## **2.14 Work Schedule**

To ensure that the work will proceed continuously through the succeeding operations to its completion with the least possible interference to traffic and inconvenience to the public, the Contractor shall submit for approval a complete schedule of his proposed construction procedure, stating the sequence in which various operations of work are to be performed. The Contractor may not change the work sequence without the prior approval of the Engineer.

## **2.15 Contract Time**

This contract shall be a completion date contract. The contract shall be completed by no later than (insert completion date)

## **2.16 Liquidated Damages**

Liquidated damages shall be assessed at the rate of (insert liquidate damage dollar amount) per calendar day until the project is complete, should the project not be completed within the specified time.

## **2.17 DBE Participation**

(Insert language about DBE participation if required)

## **2.18 Asphalt Index**

ACCEPTANCE FOR PROVISION FOR ASPHALT CEMENT PRICE INDEX: Bidders have the option to accept the provision for Asphalt Cement Price Index in accordance with Sec 4.3.7. The bidder must mark the 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.

ASPHALT CEMENT

### **3.0 Definitions**

*(Insert contract specific definitions as needed)*

### **4.0 Primary Specifications**

#### **4.1 General Provisions**

*(Insert general contract provisions such as environmental regulations, training provision, etc.)*

#### **4.2 Job Special Provisions**

*(Insert items of special work or processes such as engineered crumb rubber, aramid reinforcing fibers, specialized tack coat, etc.)*

### **4.3 Technical Specifications**

#### **4.3.1 Description:**

This work shall consist of providing an asphalt mixture to be placed, spread and compacted in one or more courses on a prepared base or underlying course as shown on the plans or as directed by the engineer. The contractor shall be responsible for QC of the asphalt mixture, including the design, and control of the quality of the material incorporated into the project. The engineer will be responsible for QA, including testing, to assure the quality of the material incorporated into the project. All Section references are to the current addition of the Missouri Standard Specifications for Construction that coincides with the letting date of this project.

<https://www.modot.org/missouri-standard-specifications-highway-construction>

#### **4.3.2 Materials**

The asphalt mixture shall be as designated in the contract documents. BP and BB mixes shall be produced in accordance with Section 401, SL mixes shall be produced in accordance with Section 402 and Superpave mixes (SP) shall be produced in accordance Section 403.

The final in-place grade of the liquid binder shall be in accordance with the contract documents. Provisions for utilizing softer grades of binder are outlined in Sections 401 and 403.

Mixtures approved by the engineer or MoDOT meeting the contract documents shall be used by the contractor. Mixtures for approval by the engineer shall be submitted 2 weeks before the start of paving. Prior to the start of construction, the contractor shall supply to the engineer the name of the asphalt mixture supplier and mix design that will be used for this project. No construction will proceed without prior approval of the mix design from the engineer.

Tack coat material requirements shall be in accordance with Section 407 and prime coat material requirements shall be in accordance with Section 408.

### 4.3.3 Construction Requirements

No mixture shall be placed on any wet or frozen surface. Asphalt will be laid during daylight hours only, unless approved by the engineer.

Existing surfaces to be overlaid shall have all loose material removed prior to the work. Areas requiring aggregate base shall be proof rolled with a loaded dump truck prior to placement of bituminous mixture.

A tack coat is required on all existing pavement and shoulder surfaces that will be overlaid with a bituminous mixture. All construction requirements of a tacked surface shall be in accordance with Sec 407 and specified herein. The surface to be tacked shall be cleaned sufficiently to remove any loose coatings. Washing may be necessary for unusually dirty pavements. The tack coat shall be applied uniformly and shall completely cover the surface upon which the bituminous mixture is to be placed. Placement of a bituminous mixture shall not be placed upon a tacked surface that is not uniformly covered or surfaces that have experienced excessive loss of tack due to tracking.

Tack shall be applied uniformly with a pressure distributor or spray paver at the target rates indicated in the following table.

<b>Tack Coat Application Rates</b>		
Surface Type	Target Rate: Undiluted (gal/yd <sup>2</sup> )	Target Rate: 20% Diluted (gal/yd <sup>2</sup> )
New Asphalt	0.05	0.06
Existing or Concrete	0.08	0.10
Coldmilled	0.10	0.13

Upon approval by the engineer, the target application rate may be varied by +/- 0.02 gal/sy in the field, based upon the existing pavement condition. The tack coat material shall be heated at the time of application to a temperature in accordance with Sec 1015. When an asphalt emulsion is

applied through a pressure distributor, the tack coat shall be properly set, and the tacked surface shall be clean of all dirt before the next course is placed.

Placement of the mixture shall be by a self-propelled paver with adequate controls that meet cross-slope, thickness and smoothness requirements of the plans and specifications. The thickness shown on the plans is the compacted thickness. Rollers shall be of sufficient size and number to compact the mixture to the required density. Handwork areas inaccessible to rollers shall be compacted with a heated mechanical compactor or hand-tamper.

Repair of damage to any driveways or side streets caused by the contractor shall be made at the discretion of the engineer and at the contractor's expense and shall be considered included in the bid. The contractor shall use care, including restricting load size to prevent damage to the existing streets in this reconstruction work.

#### **4.3.4 Pavement Repairs**

This work shall consist of providing and installing partial or full depth asphalt repairs where existing pavement is to be removed and replaced, as required in the contract documents.

Pavement repair includes all the following items, consolidated into one payment item:

- Full depth sawcut (perimeter of the removal limit)
- Pavement removals (including excavation and disposal)
- Subgrade compaction (613-10.12)
- Placement of the aggregate base rock as needed.
- Placement of the tack or prime coat
- Placement and compaction of either BP-1 or Bituminous Base

Full width, transition butt joint and edge line milling: This work shall consist of full-width, transition butt joint and edge line milling of asphaltic concrete. The milling operation will not be performed more than one day prior to the start of paving. Butt joints shall have a depth specified and transition to zero inches at a distance of fifteen feet. Gutter line milling shall begin at the centerline or edge of travelway from the specified depth to zero inches. On streets with a gutter line mill, the thickness of the asphalt overlay at the edge of the mill transition (seven feet off of the gutter line) will generally be less than the thickness specified in the contract documents. This should be taken into account at the time of bid. The contractor is responsible for the proper disposal of all material from the milling operation. All work associated with milling shall conform to Section 622.

#### **4.3.5 Testing Requirements**

This work shall consist of material and data collection necessary to test and verify compliance that the requisite design parameters and minimum standards have been met, as noted in these specifications.

The contractor shall maintain equipment and qualified personnel to perform QC field inspection, sampling and testing in accordance with applicable portions of Section 403. A proposed third party for dispute resolution shall be included with the mix design submittal.



The engineer will be responsible for Quality (QA), including testing, to assure the quality of the material incorporated into the project.

The contractor shall randomly test the mixture within the following frequencies. The gradation and the asphalt content shall be determined at least once every 1,000 tons of production or a minimum of once per day. QC tests on Superpave mixtures for VMA, Air Voids and Asphalt Content shall be performed in accordance with the small quantity specification as outlined in Section 403 of the Missouri Standard Specifications for Highway Construction and at a frequency of no less than one per day if production does not exceed 750 tons and at a frequency of no less than two per day if production exceeds 750 tons. Independent or retained sample QA tests shall be performed at least once per 1500 tons, as indicated. Deleterious content of the aggregate shall be tested at least once per project. At the engineer's discretion, testing may be waived when production does not exceed 200 tons per day and the contractor shall certify the proper proportions of the approved mixture were used. The quantity of asphalt binder introduced into the mixer shall be the quantity specified in the job mix formula. No changes shall be made to the quantity of asphalt binder without written approval from the engineer. The quantity of asphalt binder determined by tests on the final mixture shall not vary by more than - 0.3 to + 0.5 percent from the job-mix formula. Gradation tolerances and deleterious content shall be within the limits outlined in Section 401.

During construction, the engineer will designate as many tests as necessary to ensure that the course is being constructed of proper thickness, composition and density. Density of the roadway shall be determined at a random location selected by the engineer for every 500 tons of production. The locations from each day's production will be averaged to determine acceptance. The maximum theoretical density shown on the job mix formula shall be used for this determination. The compacted mixture shall have a minimum density of 92 percent of the theoretical maximum specific gravity. Density shall be determined by the direct transmission nuclear method in accordance with MoDOT Test Method TM 41, by electromagnetic gauge, ASTM D6938, or by gravimetric method, AASHTO T 166.

When AASHTO T 166 is used, cores shall be a minimum 4-inch diameter and taken the full depth of the layer to be tested. The contractor shall restore the surface from which samples have been taken immediately with the mixture under production or with a cold patch mixture acceptable to the engineer.

Smoothness of the final pavement surface shall be measured with a 10-foot straightedge. The straightedge path in the longitudinal direction for driving lanes will be located three feet from the outside edge and for shoulders will be in the center. Additional paths with suspect roughness may be selected at the engineer's discretion. Shoulders that are paved integrally with an adjacent driving lane will not require straightedging. Any variations in the longitudinal direction exceeding 1/4 inch in 10 feet on shoulders and 1/8 inch in 10 feet on all other pavements shall be marked for correction in a manner approved by the engineer.

*(For higher traffic volumes on high-speed roadways pavement smoothness may be specified in accordance with Section 610.)*

#### **4.3.5 Method of Measurement**

The weight of asphalt mixture shall be measured to the nearest 0.1 ton or full depth pavement measured to the nearest square yard, complete in place, for the total quantity accepted.

Measurement of tack and prime liquid asphalt will be made to the nearest gallon in accordance with Section 1015. If water is added to asphalt emulsion, the quantity to be paid will be determined prior to the addition of water.

Measurement will be made to the nearest square yard of pavement repair. All items listed are considered incidental and included for pavement repair.

Final measurement of milling will not be required. The quantity accepted will be the plan quantity unless appreciable errors or quantities are added.

#### **4.3.6 Basis of Payment**

Accepted quantities of material incorporated into the work will be paid at the contract unit price for each of the pay items included in the contract.

#### **4.3.7 Price Adjustment for Asphalt Cement.**

**4.3.7.1 Asphalt Cement Price Index.** Adjustments will be made to the payments due the Contractor for any plant mix bituminous base, plant mix bituminous pavement, plant mix bituminous surface leveling, asphaltic concrete pavement and ultrathin bonded asphalt wearing surface that contains performance graded (PG) asphalt binder when it has been determined that the Monthly Asphalt Index for the month prior to placement of the asphalt mixture has fluctuated from the Monthly Asphalt Index for the month the project was let. The Monthly Asphalt Index shall be established for each calendar month as the average of the midpoint selling prices of PG64-22 for St. Louis and Kansas City, Missouri areas, as published by Poten and Partners Inc. in the Asphalt Weekly Monitor®, on the first Monday preceding the date of the normal monthly MoDOT letting. For months when there is no normal monthly letting, the published price on the third Monday of that month shall be used for the Monthly Asphalt Index. The asphalt base index shall be the Monthly Asphalt Index for the month of the bid opening.

**4.3.7.1.1** The price adjustment will be applied to the actual amount of virgin PG asphalt binder used by the Contractor for all asphalt items specified in Sec 4.3.7.1. For asphalt mixtures that are paid for by the square yard, the price adjustments will be made for applicable equivalent tons, as calculated by the engineer, based upon the plan square yard quantity and thickness converted to tons, excluding the 1:1 wedge. The percentage of virgin PG asphalt binder as shown in the job mix formula, will be the basis for price adjustments for any asphalt mix type placed on the project. The effective asphalt binder obtained from the use of Recycled Asphalt Pavement (RAP) and/or Recycled Asphalt Shingles (RAS) will not be eligible for adjustment. The Monthly Asphalt Index for PG64-22 will be applied to the asphalt mix for mixes using any PG asphalt binder.

**4.3.7.1.2 Price Adjustment Calculated.** To determine the price adjustment for any asphalt mix specified in this provision, the following formula will be used.

$$A = (B \times C/100) \times (D-E)$$

Where:

- A = Dollar value adjustment for mix placed during the payment estimate period
- B = Tons of asphalt mixture placed during the payment estimate period
- C = Percent of virgin PG asphalt binder as listed in the job mix formula in use
- D = The Monthly Asphalt Index for the month prior to the month the asphalt mix was placed
- E = The asphalt base index = the Monthly Asphalt Index for the month the project was let

**4.3.7.1.3** The engineer will apply the price adjustments, as determined by the price adjustment calculation established herein, for each payment estimate period in which asphalt is placed. For asphalt placed after the contract completion time limit, the "D" value used for the price adjustment calculated shall be either the last "D" value prior to the date that contract time was exceeded, or the current monthly "D" value, whichever is lower.

**4.3.7.1.4 Optional.** This provision is optional. If the bidder wishes to be bound by this provision, the bidder shall execute the acceptance form in the below. Failure by the bidder to execute the acceptance form will be interpreted to mean election to not participate in the Asphalt Cement Price Index. If the Asphalt Cement Price Index is accepted, PG asphalt binder for the project will not be eligible for a material allowance as described in Sec 4.3.7.

## 5.0 Itemized Proposal

### EXAMPLE BID PROPOSAL/FORM

Description	UM	Units	Price	Total
Mobilization/Demobilization	LS			\$0.00
Maintenance Of Traffic	LS			\$0.00
Milling - Mainline	SY			\$0.00
Milling - Approaches	SY			\$0.00
Tack	SY			\$0.00
BP-1	TON			\$0.00
BP-2	TON			\$0.00
BP-3	TON			\$0.00
BB	TON			\$0.00
SP125C	TON			\$0.00
SP125F	TON			\$0.00
SP190C	TON			\$0.00

SP190F	TON			\$0.00
SP250C	TON			\$0.00
SP250F	TON			\$0.00
Type 1 Aggregate Base	SY			\$0.00
Type 5 Aggregate Base	SY			\$0.00
White Edge Line, Paint	LF			\$0.00
Solid Yellow Line, Paint	LF			\$0.00
Broken Yellow Line, Paint	LF			\$0.00
Pavement Marking Arrows, Paint	EACH			\$0.00
Pavement Marking Words, Paint	EACH			\$0.00
Stop Bars, Paint	LF			\$0.00
Adjust Castings to Grade	EACH			\$0.00
Adjust Water Valve Boxes to Grade	EACH			\$0.00
				\$0.00