

CITY OF GALESBURG



PURCHASING

55 West Tompkins Street
Galesburg, IL 61401
Phone: 309/345-3678

INVITATION FOR BIDS

For various fill materials, known as Section #18-01003-31-GM,
for the City of Galesburg, Illinois

Instructions to Bidders

1. An advertisement for sealed bids on the above was published in the Galesburg Register-Mail on November 22, 2017. As stated in such notice, bids will be received until 11:00 a.m., local time, December 06, 2017; and, at that time, publicly opened and read aloud in the Basement Conference Room, located in the lower level of City Hall. Bids received after 11:00 a.m. will be rejected.
2. The person, firm or corporation making a bid shall submit it in a sealed envelope to the Purchasing Agent or his duly designated representative on or before the hour and the day stated above. The notation "Bid on Fill Materials – Section 18-01003-31-GM" shall appear on the outside of the sealed envelope.
3. The bidder shall insert the prices on the Bid Form. The prices inserted shall be net and shall be the full, delivered cost, including all factors whatsoever.
4. No charge will be allowed for taxes from which the City of Galesburg is exempt: the Illinois Retailer's Occupation Tax, the Service Occupation Tax, the Service Use Tax, the Use Tax, Federal Excise and Transportation Tax.
5. Each bidder shall affirm that no official or employee of the City of Galesburg is directly or indirectly interested in this bid for any reason of personal gain.
6. Delivery of the goods and/or services shall be as stated in the bid documents.

7. The City will release payment for materials delivered and invoiced within thirty days following delivery and acceptance of the materials ordered.
8. No bid may be changed or withdrawn after the time of the bid opening. Any modifications or withdrawals requested before this time shall be acceptable only when such request is made in writing and agreed to by the Purchasing Agent.
9. The City of Galesburg reserves the right to reject any and all bids and to waive any informalities or technicalities in the bidding. Any bid submitted will be binding for (60) sixty days after the date of the bid opening.
10. The City has adopted an "Equal Employment Opportunity Clause", which is incorporated into all specifications, purchase orders, and contracts, whereby a vendor agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or ancestry. A copy of this clause may be obtained at the City Clerk's Office, City Hall, Galesburg, Illinois.
11. The City of Galesburg has adopted an Affirmative Action Program. All formal sealed bids must be accompanied by a properly prepared Certificate of Compliance Form, whereby the vendor certifies the number of employees he has in each class of employment, and that affirmative action has been taken to ensure equality of opportunity in all aspects of employment.
12. Bidder certifies that all laws of the State of Illinois and ordinances of the City of Galesburg in effect at the date of bidding shall be observed by him. Evidence of any violation during the term of the agreement shall be considered sufficient reason to discontinue purchases by the City from that supplier.
13. The City requires that vendors be paid through ACH (automatic clearing house). The awarded vendor will be required to provide the City with applicable banking information for proper payment. An ACH form is attached to this document for vendor review.
14. These instructions are to be considered an integral part of any bid.

Dated: November 22, 2017

**Kraig D.
Boynton**

Digitally signed by Kraig D. Boynton
DN: cn=Kraig D. Boynton, o=City of
Galesburg, IL, ou=Purchasing,
email=kboynton@ci.galesburg.il.us,
c=US
Date: 2017.11.17 16:49:54 -06'00'

Kraig Boynton
Purchasing Agent



Date 11/15/2017

Municipality City of Galesburg	Company
County Knox	Representative
Township	Address
Section 18-01003-31-GM	Telephone ()

- (1) Quotations will be received in the office of the Purchasing Agent until 11:00 o'clock A M. 12/06/2017, for furnishing materials required the year 2017, and that time publicly opened and read.
- (2) Quotations shall be submitted on the reverse side of this form and enclosed in a sealed envelope endorsed QUOTATIONS.
- (3) The right is reserved by the Local Agency (LA) to reject any or all quotations.

By Order of The City of Galesburg Engineer

Wayne E. Carl 11/15/2017

Name Date

The effective date of these quotations will be the date of the opening above. These quotations will be placed on file and remain firm until revised by the supplier(s).

The suppliers may revise their quotations by registered letter to the City Engineer at least five (5) days before the end of the month. Quotations may only be revised by this procedure on a monthly basis. Any change received will become effective on the first day of the month following notification.

When quotations are revised by the supplier(s), the LA reserves the right to review other accepted quotations and purchase the materials from an available source that will result in the "lowest on-the-road cost."

The LA reserves the right to readvertise for new or additional quotations if not satisfied with the original or revised quotations on file. The original and revised quotations shall remain in effect unless terminated in writing by the LA to the supplier(s). Purchases will be made only from those suppliers that submitted acceptable quotations at the initial or any subsequent public letting.

It is understood that all material will be tested and approved by the Illinois Department of Transportation. The requirements of the Standard Specifications for Road and Bridge Construction adopted by the Department shall govern insofar as they apply.

The quantities of materials shown are for information only. They represent the best known estimate of material needed. The actual quantities purchased may be increased or decreased by any amount subject to any maximum quantities specified by the supplier. Quotations with limits or conditions shall be rejected.

MATERIALS QUOTATIONS

Item	Delivery Point	Approximate Quantity	Unit Price	Amount
PLEASE SEE ATTACHED LIST				

The undersigned agrees to furnish any or all of the above materials upon which prices are quoted at the above quoted unit prices subject to the following conditions:

- (1) It is understood and agreed that the current "Standard Specifications for Road and Bridge Construction" adopted by the Department of Transportation shall govern insofar as they may be applied and insofar as they do not conflict with the special provisions and supplemental specifications attached hereto.
- (2) It is understood that quantities listed are approximate only and that they may be increased or decreased as needed to promptly complete the work at the above unit price quoted.
- (3) Delivery in total or partial shipments as ordered shall be made within the time specified in the special provisions or by the terms of acceptance at the point and in the manner specified in the "MATERIAL QUOTATIONS". If delivery on the job site is specified, it shall mean any place or places on the road designated by the awarding authority or its authorized representative.
- (4) The undersigned firm certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois, nor has the firm made an admission of guilt of such conduct which is a matter of record, nor has an official, agent or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm. The undersigned firm further certifies that it is not barred from contracting with any unit of State or local government as a result of a violation of State laws prohibiting bid-rigging or bid-rotating.

Bidder _____ By _____
 Address _____ Title _____

Accepted By _____ Date _____
 (Local Agency)

Approved _____
 Regional Engineer

PLEASE FILL OUT AND RETURN WITH QUOTATION.

CITY OF GALESBURG MATERIALS QUOTATIONS 2018						
MATERIALS						
QUOTATIONS						
18-01003-31-GM						
ITEM	DESCRIPTION	DELIVERY POINT	APPROX QTY.	UNIT	UNIT PRICE	AMOUNT
1	COURSE AGGREGATE CA-6 (GRAVEL OR CRUSHED STONE)	DELIVERED	50.00	TON		
2	COURSE AGGREGATE CA-6 (CRUSHED WHITE STONE)	DELIVERED	900.00	TON		
3	HOT MIX ASPHALT BINDER AND SURFACE COURSE	PICKED UP	1600.00	TON		
4	PORTLAND CEMENT CONC. CL SI	DELIVERED	500.00	C.Y.		
5	PCC. CL. PP 1 MIX	DELIVERED	50.00	C.Y.		
6	PCC. CL. PP 2 MIX	DELIVERED	60.00	C.Y.		
7	MASON SAND – FA 9	DELIVERED PICKED UP	50.00 50.00	TON TON		
8	FILL SAND – FA 1	DELIVERED PICKED UP	100.00 100.00	TON TON		
9	TRENCH BACKFILL – FA 6	DELIVERED PICKED UP	50.00 50.00	TON TON		
10	CONTROLLED LOW STRENGTH MATERIAL (CLSM)	DELIVERED	200.00	C.Y.		
11	3/8" PEA GRAVEL – CA 16	DELIVERED PICKED UP	75.00 75.00	TON TON		
12	COLD PATCH (EMULSION)	PICKED UP	40.00	TON		
13	HIGH PERFORMANCE PATCHING MIX	PICKED UP	200.00	TON		
	ADDITIONAL CHARGE:					
	"SUPERPLASTICIZER"			GAL.		
	"1% NON-CALCIUM ACC."			EA 1%		
	FOR LESS THAN 2 CU. YD.			LOAD		
	FOR HEAT FROM 11/1 – 12/31			C.Y.		

PLEASE FILL OUT AND RETURN WITH QUOTATION.



City of Galesburg

Operating Under Council – Manager Government Since 1957

The City of Galesburg will no longer be issuing checks for vendor payments. The City will pay vendors through ACH by automatically depositing payments to a bank checking/savings account or payment to vendors can be made by credit card at the time of purchase.

In order to process your next payment, please fill out the following information and provide a copy of a void check. Please mail to City of Galesburg, Accounts Payable, P.O. Box 1589, Galesburg, IL 61402-1589 or fax the completed form and a void check, if the funds are being deposited to a checking account, to the fax number listed below.

Vendor Name: _____

Address: _____

City, State, Zip Code: _____

Phone Number: _____

Email Address: _____

Bank Name: _____

Checking/Savings Acct Number: _____

(Please indicate type of account by circling Checking or Savings)

Bank Routing Number: _____

Signature: _____

Payment information will be e-mailed to you approximately two days prior to the funds being credited to your bank account. If you have any questions, please contact me.

Tifani Miller
Accounts Payable
City of Galesburg
309/345-3674
309/343-4765 fax
tmiller@ci.galesburg.il.us

PLEASE FILL OUT AND RETURN WITH QUOTATION.

THIS FORM IS BASED ON IRS REQUIRMENTS FOR THE SAME ESSENTIAL INFORMATION AS A W-9

RETURN TO: CITY OF GALESBURG
ATTN: A/P
55 W TOMPKINS ST
GALESBURG, IL 61401

OR FAX TO: 309-343-4765

The following information is needed to complete your vendor file and to comply with IRS requirements. Please fill out this form as completely as possible to ensure proper payment to you. Please return completed form as soon as possible to The City of Galesburg at the above address or fax number. Please call 309-345-3674 with any questions.

BUSINESS NAME: _____
INDIVIDUAL NAME: _____
(for Sole Proprietors as appears on Social Security Card)
BUSINESS ADDRESS: _____
CITY, STATE, ZIP: _____

YOUR TAXPAYER IDENTIFICATION NUMBER: _____
(FEIN or business tax ID. No.)
OR, YOUR SOCIAL SECURITY NUMBER: _____
(If using SSN, enter the name on the card above as Individual Name.)

PLEASE CHECK APPROPRIATE BOX:

Individual/Sole Proprietor Corporation Partnership Other _____

YOUR COMPANY PROVIDES:

Legal Services Services Materials Other _____

ARE YOU SUBJECT TO BACKUP WITHHOLDING?

Yes No

PERSON TO CONTACT: _____

PHONE NUMBER: _____

UNDER PENALTY OF PERJURY, I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS CORRECT AND COMPLETE.

Signature

Date

Title

FOR OFFICE USE ONLY

ENTERED INTO SYSTEM VENDOR NUMBER: _____

SPECIAL PROVISIONS TO COVER
CONTRACTOR'S AND MUNICIPAL VENDORS
(As Amended 05/17/16)

The Contractor, or Municipal Vendor, shall not commence work under this contract until he has obtained all insurance required under this section, and such insurance has been approved by the City; nor shall the Contractor allow any sub-contractor to commence work on his sub-contract until all similar insurance required of the sub-contractor has been approved by the City.

The Contractor shall obtain and thereafter keep in force the following insurance coverages provided by insurance companies acceptable to the City and authorized to transact business under the laws of the State of Illinois. The insurance companies providing coverage shall be rated in the Best's Key Rating Guide. The City will accept companies with a rating not lower than B+ provided the financial size category is VII or larger. Companies rated A- or better shall have a financial size category of not less than VI. Coverage limits shall be written at not less than the minimum specified in this section. Higher minimum limits and additional coverage may be specified by a special provision elsewhere in the contract. Whether stated in this section or elsewhere, the City does not warrant the adequacy of the types of insurance coverage or the limits of liability specified.

- (a) Workers Compensation and Employers Liability
 - (1) Workers compensation shall be provided according to the provisions of the Illinois Worker's Compensation Act, as amended. Notwithstanding the rating and financial size categories stated in this section, coverage may be provided by a group self-insurer authorized in Section 4(a) of the Act and approved pursuant to the rules of the Illinois Department of Insurance.
 - (2) Employers Liability.
 - a. Each Accident \$500,000
 - b. Disease-policy limit \$500,000
 - c. Disease-each employee \$500,000
- (b) Commercial General Liability. Required liability insurance coverage shall be written in the occurrence form and shall provide coverage for operations of the Contractor; operations of subcontractors (contingent or protective liability); completed operations; broad form property damage and hazards of explosion, collapse and underground; and contractual liability. The general aggregate limit shall be endorsed on a per project basis.
 - (1) General Aggregate Limit \$2,000,000
 - (2) Products-Completed Operation Aggregate Limit \$2,000,000
 - (3) Each Occurrence Limit \$1,000,000The coverage shall provide by an endorsement in the appropriate manner and form, the City, its officers, and employees shall be named as additional insureds with respect to the policies and any umbrella excess liability coverage for occurrences arising in whole or in part out of the work and operations performed. The City may accept a separate owner's protective liability policy in lieu of the City, its officers, and employees being insureds on the Contractor's policies.
- (c) Commercial Automobile Liability. The policy shall cover owned, non-owned, and hired vehicles.
 - Bodily Injury & Property Damage Liability Limit Each Occurrence \$1,000,000
- (d) Umbrella Liability. Any policy shall provide excess limits over and above the other insurance limits stated in this Article. The Contractor may purchase insurance for the full limits required or by a combination of primary policies for lesser limits and remaining limits provided by the umbrella policy.

All insurance shall remain in force during the period covering occurrences happening on or after the effective date and remain in effect during performance of the work and at all times thereafter when the Contractor may be correcting, removing, or replacing defective work until notification of the date of final inspection. Termination or refusal to renew shall not be made without 30 days prior written notice to the City by the insurer and the policies shall be endorsed so as to remove any language restricting or limiting liability concerning this obligation.

Certified copies of the original policies or certificate(s) of insurance by the insurer(s) issuing the policies and endorsements setting forth the coverage, limits, and endorsements shall be filed with the City before the City will execute the contract. A certificate of insurance shall include a statement "the coverage and limits conform to the minimums required by Article 107.27 of the Standard Specifications for Road and Bridge Construction". Any exception or deviation shall be brought to the attention of the City for a ruling of acceptability. In no event shall any failure of the City to receive policies or certificates or to demand receipt be construed as a waiver of the Contractor's obligation to obtain and keep in force the required insurance.

All costs for insurance as specified herein will be considered as included in the cost of the contract. The Contractor shall, at his/her expense and risk of delay, cease operations if the insurance required is terminated or reduced below the required amounts of coverage. Coverage in the minimum amounts set forth herein shall not be construed to relieve the Contractor from his/her obligation to indemnify in excess of the coverage according to the contract.

The contractor, prior to execution of the contract, shall file with the City copies of completed certificates of insurance, satisfactory to the City, to afford protection against all claims for damages to public or private property, and injuries to persons, arising out of and during the progress of the work to its completion, being whenever the improvement called for by the contract shall have been completely performed on the part of the contractor and all parts of the work have been approved and accepted by the City, and the final payment made. The policy of insurance shall include the City as an additional insured or provide separate coverage with an Owner's Protective policy.

**Language of coverage in this section taken from IDOT Standard Specifications adopted April 1, 2016*

PLEASE FILL OUT AND RETURN WITH QUOTATION.

RETURN WITH BID

Attachment #1

Route _____ Section _____
Project _____ County Knox

H. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS - Instructions for Certification
1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in the denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department of agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", "proposal" and "voluntarily excluded", as used in this clause have the meaning set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.

6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction", provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but it is not required to, check the No Procurement List (Tel. #).

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which does a prudent person in the ordinary course of business dealings normally possess.

10. Except for transactions authorized under paragraph 8 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER
RESPONSIBILITY MATTERS - PRIMARY COVERED TRANSACTIONS

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or Local) transaction or contract under a public transaction: Violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;
 - c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or Local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification; and
 - d. Have not within a three-year period preceding this application/proposal, had one or more public transactions (Federal, State or Local) terminated for cause or default.
2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

NAME OF BIDDER _____

Print Name of Bidder - Signature(s) to be affixed to Proposal Signature Sheet)

PLEASE FILL OUT AND RETURN WITH QUOTATION.

RETURN WITH BID
TO THE CITY OF GALESBURG, ILLINOIS
CERTIFICATE OF COMPLIANCE

EMPLOY- MENT	SUPER- VISORY	SALES	OFFICE	SKILLED	SEMI- SKILLED	NON- SKILLED
WHITE						
BLACK						
OTHER						
MALE						
FEMALE						

(PLEASE FILL IN THE NUMBER OF EMPLOYEES IN EACH CLASS)

1. THE CONTRACTOR OF COMPANY WILL NOT DISCRIMINATE AGAINST ANY EMPLOYEES OR APPLICANT FOR EMPLOYMENT BECAUSE OF RACE, CREED, COLOR, SEX, AGE, NATIONAL ORIGIN, HANDICAPPING CONDITION UNRELATED TO ABILITY TO PERFORM THE JOB; AND, WILL TAKE AFFIRMATIVE ACTION TO ENSURE THAT APPLICANTS ARE EMPLOYED WITHOUT REGARD TO THEIR RACE, CREED, COLOR, SEX, AGE, HANDICAPOR NATIONAL ORIGIN. SUCH ACTION SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: EMPLOYMENT, UPGRADING, DEMOTION OR TRANSFER, RECRUITMENT OR RECRUITMENT ADVERTISING, LAYOFF OR TERMINATION, RATES OF PAY OR OTHER COMPENSATION, AND SELECTION FOR TRAINING, INCLUDING APPRENTICESHIP. THE CONTRACTOR OR COMPANY AGREES TO POST, IN CONSPICUOUS PLACES, AVAILABLE TO EMPLOYEES AND APPLICANTS FOR EMPLOYMENT, NOTICES SETTING FORTH THE PROVISIONS OF THIS NON-DISCRIMINATION CLAUSE.
2. THE CONTRACTOR OR COMPANY WILL, IN ALL SOLICITATIONS OR ADVERTISEMENTS FOR EMPLOYEES OR ON THEIR BEHALF, STATE THAT ALL QUALIFIED APPLICANTS WILL RECEIVE CONSIDERATION FOR EMPLOYMENT WITHOUT REGARD TO RACE, CREED, COLOR, SEX, AGE, HANDICAPPING CONDITION UNRELATED TO ABILITY OR NATIONAL ORIGIN. THE SAME SHALL HOLD TRUE WHEN RECRUITMENT SOURCES ARE USED TO SECURE APPLICANTS.
3. THE CONTRACTOR OR COMPANY AGREES TO NOTIFY ALL OF ITS SUBCONTRACTORS OF THEIR OBLIGATION TO COMPLY WITH THE NON-DISCRIMINATION POLICY.
4. IN THE EVENT OF THE CONTRACTOR'S OR COMPANY'S NON-COMPLIANCE WITH THE NON-DISCRIMINATION CLAUSES OF THE CONTRACT OR PURCHASE OR WITH ANY OF SUCH RULES, REGULATIONS OR ORDERS, THE CONTRACT OR PURCHASE MAY BE CANCELLED, TERMINATED OR SUSPENDED IN WHOLE OR IN PART AND THE CONTRACTOR OR COMPANY MAY BE DECLARED INELIGIBLE FOR FURTHER CITY CONTRACTS OR PURCHASES IN ACCORDANCE WITH THE AFFIRMATIVE ACTION PROGRAM ADOPTED BY THE GALESBURG CITY COUNCIL AT THEIR MEETING ON AUGUST 6, 1990.

By: _____
BIDDER

PLEASE FILL OUT AND RETURN WITH QUOTATION.

RETURN WITH BID

CITY OF GALESBURG

MUNICIPAL VENDORS HOLD HARMLESS AGREEMENT

All vendors doing business with the City of Galesburg, Illinois, shall read and agree to sign this Hold Harmless Agreement. In lieu of the vendor signing this agreement, the City will accept being named as an additional insured on the vendor's general liability policy only as respects specific operations performed by the vendor on behalf of or on the premises of the City of Galesburg, Illinois.

"In consideration of your permitting us, our servants, our agents, employees and representatives from time to time to enter upon or to place or maintain equipment upon premises owned or controlled by you for the purposes of servicing our account, we agree to indemnify and hold harmless the City and its' agents and employees from and against all claims for personal injury or property damage, including claims against the City, its' agents or servants, and all losses or expenses, including attorney's fees that may be incurred by the City in defending such claims, rising out of or resulting from the performance of the work and caused in whole or in part by any negligent act or omission of the Municipal Vendor, or anyone directly or indirectly employed by the Municipal Vendor or anyone for whose acts any of them may be liable, the indemnification obligation under this paragraph shall not be limited in anyway by any limitation on the amount or type of damages, compensation or benefits payable by or for the Municipal Vendor, under Workers' Compensation Acts, Disability Acts, or other Employee Benefit Acts."

Subscribed and Sworn to Before me this _____, 20_____

Person, Firm, or Corporation

Notary Public

ASPHALT COST ADJUSTMENT- MODIFIED (RETURN WITH BID)

For all HMA binder and surface course mixes supplied as part of this contract, a cost adjustment will be made to provide additional compensation to the Contractor, or credit to the City, for fluctuations in the cost of asphalt binder when optioned by the Contractor. The adjustment shall only apply to permanent hot-mix asphalt (HMA) mixtures.

The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of a asphalt cost adjustment.

Method of Adjustment: Asphalt cost adjustment will be computed as follows:

$$CA = \{(BPI_P) - (BPI_L)\} \times (\% AC_v/100)$$

Where: CA = Cost Adjustment, \$ Amount per Ton. (Applied July 1, 2015) effective July 1, 2015 through December 31, 2015)

BPI_P = Bituminous Price Index, as published by the Department on July 1, 2015), \$/ton.

BPI_L = Bituminous Price Index, as published by the Department on January 1, 2015

%AC_v = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_v will be determined from the adjusted job mix formula.

Basis of Payment. An asphalt cost adjustment may be positive or negative but will only be made when there is a difference between the sum of the BPI_L and BPI_P in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(BPI_L - BPI_P) / BPI_L\} \times 100$$

The asphalt cost adjustment will be calculated for the HMA asphalt pay item included in this contract. The cost adjustment will be calculated on the first of July 2015 and will apply for the period of July 1, 2015 through December 31, 2015. All HMA asphalt mixtures purchased under this contract during that time period will be paid at the adjusted price. This adjustment shall only be made once during the life of this contract and shall be based on the Department's published Bituminous Price Index for July 1, 2015.

PLEASE FILL OUT AND RETURN WITH QUOTATION.

OPTION FOR ASPHALT COST ADJUSTMENT

The bidder shall submit this completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of an asphalt cost adjustment. After award, this form, when submitted, shall become part of the contract.

Section No.: 18-01003-31-GM Materials for 2018

Company Name: _____

Contractor's Option:

Is your company opting to include this special provision as part of the contract?

Yes _____ No _____

Signature: _____ Date: _____

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Special Provisions

The following Special Provisions supplement the “Standard Specifications for Road and Bridge Construction”, Adopted April 1, 2016, or the latest adopted edition, the latest edition of the “Manual on Uniform Traffic Control Devices for Streets and Highways and the “Manual of Test Procedures of Materials” in effect on the date of invitation of bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included here in which apply to and govern the construction of 18-01003-31-GM, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

GENERAL SPECIFICATIONS:

1. All quantities given for the materials being offered for bid are estimates only. They are based on the best available comparison with previous usage, together with projected requirements during the contract period. The quantities actually purchased may be reasonably greater or less, as conditions require; and, the City will order and pay for only those quantities actually required.
2. The bids shall be in effect from January 1, 2018 through December 31, 2018. During that period, the bidders agree to furnish materials as needed for the City’s day-to-day operations. Generally, materials shall be ordered from the supplier where the lowest cost to the City may be obtained. When materials are not available from that source for any reason, the City may choose to wait for availability or to purchase from another source. Where materials may be available from more than one location, bidder shall state the location and price.
3. All materials proposed by any bidder shall conform to the specifications contained in the “Standard Specifications for Road and Bridge Construction”, adopted April 1, 2016, by the Illinois Department of Transportation (IDOT), Division of Highways, Springfield, Illinois, **or the latest adopted edition.**
4. Purchase Order will be issued by the City for each requirement as it arises. This may be a separate purchase order or a blanket purchase order. No deliveries are authorized except by such purchase order, properly issued. A delivery receipt, signed by an authorized City Employee, shall be submitted with the invoice.
5. Where the specifications state “picked up” or “picked up at your plant”, it is meant at a location near the City of Galesburg, with the material being loaded on a City truck by the supplier.

MATERIALS:

Item No.1 & 2 Course Aggregate

- a) Quantity:
 - 1) Approximately 50 Tons of CA-6 (Gravel or Crushed Stone)
 - 2) Approximately 900 Tons of CA-6 (Crushed White Stone)
- b) All materials shall be in accordance with Section 1004 Coarse Aggregate of the IDOT Standard Specifications as well as the "Aggregate Quality" special provision included in this contract.
- c) All CA-6 material shall be from an IDOT approved source for CA-6 material.
- d) Shall be delivered and spread and/or stockpiled, as required by the City.

Item No. 3 Hot Mix Asphalt Binder Course and Hot Mix Asphalt Surface Course

- a) Quantity: Approximately 1600 Tons
- b) All materials shall be in accordance with Section 406 Hot Mix Asphalt Binder and Surface courses of the IDOT Standard Specifications.
- c) Picked up at your plant by the City.

Item No. 4-6 Portland Cement Concrete, Class, SI, PP-1 AND PP-2

- a) Quantity:
 - 1) Approximately 500 Cubic Yards of City Mix (Class SI)
 - 2) Approximately 50 Cubic Yards of Patching Mix (Class PP-1)
 - 3) Approximately 60 Cubic Yards of Patching Mix (Class PP-2)

Superplasticizer and Non-Calcium accelerator shall be added when requested by the city.

- b) All materials shall be in accordance with Section 1020 Portland Cement Concrete of the IDOT Standard Specifications with the following mix design criteria.

- 1) City Mix shall meet the design criteria for Class SI concrete.
- 2) Patching Mix shall meet the design criteria for Class PP-2 concrete.

- c) Concrete mixing shall meet the requirements of Sections 1020.11 (Mixing Portland Cement Concrete) of the Standard Specifications, except that only mixer trucks shall be used to transport the material to the jobsite.
- d) Delivery will be made as required and to the jobsites as designated by the City. The materials shall be dispatched in accordance with the customary delivery speed established as standard operation for the successful bidder.
- e) Minimum order and delivery shall be 1 cubic yard. Bidder to stipulate on the bid form extra delivery charges for quantity of less than two cubic yards.
- f) Additional costs for additives normally required during the winter season, such as calcium chloride and heat, shall be entered by each bidder in the appropriate place on the bid form.

Item No. 7 - Mason Sand – FA 9

- a) Quantity: Approximately 100 Tons
- b) All materials shall be in accordance with Section 1003 Fine Aggregates, Art. 1003.01 and 1003.02 of the IDOT Standard Specifications for FA 9 gradation.
- c) Shall be delivered and spread and/or stockpiled, as required by the City or picked up.

Item No. 8 – Fill Sand – FA1

- a) Quantity: Approximately 200 Tons
- b) All materials shall be in accordance with Section 1003 Fine Aggregates, Art. 1003.01 of the IDOT Standard Specifications for FA 1 gradation.
- c) Shall be delivered and spread and/or stockpiled, as required by the City or picked up.

Item No. 9 – Trench Backfill – FA 6

- a) Quantity: Approximately 100 Tons
- b) All materials shall be in accordance with Section 1003 Fine Aggregates, Art. 1003.01 and 1003.04 of the IDOT Standard Specifications for FA 6 gradation.
- c) Shall be delivered and spread and/or stockpiled, as required by the City or picked up.

Item No. 10 – Controlled Low Strength Material (CLSM)

- a) Quantity: Approximately 200 Cubic Yards
- b) All materials shall be in accordance with Section 1019 Controlled Low-Strength Material (CLSM) of the IDOT Standard Specifications.
- c) Delivery will be made as required and to the jobsites as designated by the City. The materials shall be dispatched in accordance with the customary delivery speed established as standard operation for the successful bidder.
- d) Minimum order and delivery shall be 1 cubic yard. Bidder to stipulate on the bid form extra delivery charges for quantity of less than two cubic yards.

Item No. 11 – 3/8” Pea Gravel - CA-16

- a) Quantity: Approximately 150 Tons
- b) All materials shall be in accordance with Section 1004 Coarse Aggregates, Art. 1004.01 of the IDOT Standard Specifications for CA-16 gradation.
- c) Shall be delivered and spread and/or stockpiled, as required by the City or picked up.

Item No. 12 – Cold Patch (Emulsion)

- a) Quantity: Approximately 40 Tons
- b) All materials shall be in accordance with IDOT specifications for "Bituminous Mixtures for Maintenance Use, Emulsified Asphalt Type" (S/N M17-08) or "Bituminous Premix For Maintenance Use, Inverted Emulsified Asphalt CBAE-2" (S/N – M48-02) as appropriate.
- c) Shall be made available for pickup at your plant by the City.
- d) Appropriate mix shall supplied for the weather conditions.

Item no. 13 – High Performance Patching Mixture

- a) Quantity: Approximately 200 Tons
- b) All materials shall be in accordance with IDOT specifications for "Bituminous Premix For Maintenance Use, Proprietary Mixes" (S/N – M120-10) as appropriate.
- c) Shall be made available for pickup at your plant by the City.
- d) Appropriate mix shall be supplied for the weather conditions.



The Following Recurring Special Provisions Indicated By An "X" Are Applicable To This Contract And Are Included By Reference:

Recurring Special Provisions

<u>Check Sheet #</u>		<u>Page No.</u>
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2	<input type="checkbox"/> Subletting of Contracts (Federal-Aid Contracts)	67
3	<input type="checkbox"/> EEO	68
4	<input type="checkbox"/> Specific EEO Responsibilities Non Federal-Aid Contracts	78
5	<input type="checkbox"/> Required Provisions - State Contracts	83
6	<input type="checkbox"/> Asbestos Bearing Pad Removal	89
7	<input type="checkbox"/> Asbestos Waterproofing Membrane and Asbestos Hot-Mix Asphalt Surface Removal	90
8	<input type="checkbox"/> Temporary Stream Crossings and In-Stream Work Pads	91
9	<input type="checkbox"/> Construction Layout Stakes Except for Bridges	92
10	<input type="checkbox"/> Construction Layout Stakes	95
11	<input type="checkbox"/> Use of Geotextile Fabric for Railroad Crossing	98
12	<input type="checkbox"/> Subsealing of Concrete Pavements	100
13	<input type="checkbox"/> Hot-Mix Asphalt Surface Correction	104
14	<input type="checkbox"/> Pavement and Shoulder Resurfacing	106
15	<input type="checkbox"/> Patching with Hot-Mix Asphalt Overlay Removal	107
16	<input type="checkbox"/> Polymer Concrete	109
17	<input type="checkbox"/> PVC Pipeliner	111
18	<input type="checkbox"/> Bicycle Racks	112
19	<input type="checkbox"/> Temporary Portable Bridge Traffic Signals	114
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21	<input type="checkbox"/> Nighttime Inspection of Roadway Lighting	117
22	<input type="checkbox"/> English Substitution of Metric Bolts	118
23	<input type="checkbox"/> Calcium Chloride Accelerator for Portland Cement Concrete	119
24	<input type="checkbox"/> Quality Control of Concrete Mixtures at the Plant	120
25	<input type="checkbox"/> Quality Control/Quality Assurance of Concrete Mixtures	128
26	<input type="checkbox"/> Digital Terrain Modeling for Earthwork Calculations	144
27	<input type="checkbox"/> Reserved	146
28	<input type="checkbox"/> Preventive Maintenance - Bituminous Surface Treatment	147
29	<input type="checkbox"/> Reserved	153
30	<input type="checkbox"/> Reserved	154
31	<input type="checkbox"/> Reserved	155
32	<input type="checkbox"/> Temporary Raised Pavement Markers	156
33	<input type="checkbox"/> Restoring Bridge Approach Pavements Using High-Density Foam	157
34	<input type="checkbox"/> Portland Cement Concrete Inlay or Overlay	160
35	<input type="checkbox"/> Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	164

The Following Local Roads And Streets Recurring Special Provisions Indicated By An "X" Are Applicable To This Contract And Are Included By Reference:

Local Roads And Streets Recurring Special Provisions

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LRS 3	<input type="checkbox"/> Work Zone Traffic Control Surveillance	170
LRS 4	<input type="checkbox"/> Flaggers in Work Zones	171
LRS 5	<input checked="" type="checkbox"/> Contract Claims	172
LRS 6	<input type="checkbox"/> Bidding Requirements and Conditions for Contract Proposals	173
LRS 7	<input checked="" type="checkbox"/> Bidding Requirements and Conditions for Material Proposals	179
LRS 8	Reserved	185
LRS 9	<input type="checkbox"/> Bituminous Surface Treatments	186
LRS 10	Reserved	187
LRS 11	<input checked="" type="checkbox"/> Employment Practices	188
LRS 12	<input type="checkbox"/> Wages of Employees on Public Works	190
LRS 13	<input type="checkbox"/> Selection of Labor	192
LRS 14	<input type="checkbox"/> Paving Brick and Concrete Paver Pavements and Sidewalks	193
LRS 15	<input type="checkbox"/> Partial Payments	196
LRS 16	<input type="checkbox"/> Protests on Local Lettings	197
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INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2018

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS, frequently used RECURRING SPECIAL PROVISIONS, and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction
(Adopted 4-1-16) (Revised 1-1-18)

SUPPLEMENTAL SPECIFICATIONS

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BDE SPECIAL PROVISIONS
For the January 19 and March 9, 2018 Lettings

The following special provisions indicated by an "x" are applicable to this contract and will be included by the Project Development and Implementation Section of the BD&E. An * indicates a new or revised special provision for the letting.

<u>File Name</u>	<u>#</u>	<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80099	1	Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2014
80382	2	Adjusting Frames and Grates	April 1, 2017	
80274	3	Aggregate Subgrade Improvement	April 1, 2012	April 1, 2016
80192	4	Automated Flagger Assistance Device	Jan. 1, 2008	
80173	5	Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
80241	6	Bridge Demolition Debris	July 1, 2009	
50261	7	Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50481	8	Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50491	9	Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50531	10	Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
80366	11	Butt Joints	July 1, 2016	
80386	12	Calcium Aluminate Cement for Class PP-5 Concrete Patching	Nov. 1, 2017	
* 80396	13	Class A and B Patching	Jan. 1, 2018	
80384	14	Compensable Delay Costs	June 2, 2017	
80198	15	Completion Date (via calendar days)	April 1, 2008	
80199	16	Completion Date (via calendar days) Plus Working Days	April 1, 2008	
80293	17	Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	July 1, 2016
80311	18	Concrete End Sections for Pipe Culverts	Jan. 1, 2013	April 1, 2016
80277	19	Concrete Mix Design – Department Provided	Jan. 1, 2012	April 1, 2016
80261	20	Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
80387	21	Contrast Preformed Plastic Pavement Marking	Nov. 1, 2017	
80029	22	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	July 2, 2016
* 80378	23	Dowel Bar Inserter	Jan. 1, 2017	Jan. 1, 2018
80388	24	Equipment Parking and Storage	Nov. 1, 2017	
80229	25	Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
80304	26	Grooving for Recessed Pavement Markings	Nov. 1, 2012	Nov. 1, 2017
80246	27	Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	April 1, 2016
* 80347	28	Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Nov. 1, 2014	Jan. 1, 2018
80383	29	Hot-Mix Asphalt – Quality Control for Performance	April 1, 2017	Nov. 1, 2017
80376	30	Hot-Mix Asphalt – Tack Coat	Nov. 1, 2016	
* 80392	31	Lights on Barricades	Jan. 1, 2018	
80336	32	Longitudinal Joint and Crack Patching	April 1, 2014	April 1, 2016
* 80393	33	Manholes, Valve Vaults, and Flat Slab Tops	Jan. 1, 2018	
80045	34	Material Transfer Device	June 15, 1999	Aug. 1, 2014
* 80394	35	Metal Flared End Section for Pipe Culverts	Jan. 1, 2018	
80165	36	Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
80349	37	Pavement Marking Blackout Tape	Nov. 1, 2014	April 1, 2016
80371	38	Pavement Marking Removal	July 1, 2016	
* 80390	39	Payments to Subcontractors	Nov. 2, 2017	
80377	40	Portable Changeable Message Signs	Nov. 1, 2016	April 1, 2017
80389	41	Portland Cement Concrete	Nov. 1, 2017	
80359	42	Portland Cement Concrete Bridge Deck Curing	April 1, 2015	Nov. 1, 2017
80385	43	Portland Cement Concrete Sidewalk	Aug. 1, 2017	
80300	44	Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	April 1, 2016
80328	45	Progress Payments	Nov. 2, 2013	
34261	46	Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006

<u>File Name</u>	<u>#</u>		<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80157	47	<input type="checkbox"/>	Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
* 80306	48	<input checked="" type="checkbox"/>	Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Jan. 1, 2018
* 80395	49	<input type="checkbox"/>	Sloped Metal End Section for Pipe Culverts	Jan. 1, 2018	
80340	50	<input type="checkbox"/>	Speed Display Trailer	April 2, 2014	Jan. 1, 2017
80127	51	<input type="checkbox"/>	Steel Cost Adjustment	April 2, 2004	Aug. 1, 2017
* 80391	52	<input type="checkbox"/>	Subcontractor Mobilization Payments	Nov. 2, 2017	
80317	53	<input type="checkbox"/>	Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	April 1, 2016
80298	54	<input type="checkbox"/>	Temporary Pavement Marking (NOTE: This special provision was previously named "Pavement Marking Tape Type IV".)	April 1, 2012	April 1, 2017
20338	55	<input type="checkbox"/>	Training Special Provisions	Oct. 15, 1975	
* 80318	56	<input type="checkbox"/>	Traversable Pipe Grate for Concrete End Sections (NOTE: This special provision was previously named "Traversable Pipe Grate".)	Jan. 1, 2013	Jan. 1, 2018
80288	57	<input type="checkbox"/>	Warm Mix Asphalt	Jan. 1, 2012	April 1, 2016
80302	58	<input type="checkbox"/>	Weekly DBE Trucking Reports	June 2, 2012	April 2, 2015
80071	59	<input type="checkbox"/>	Working Days	Jan. 1, 2002	

The following special provisions are in the 2018 Supplemental Specifications and Recurring Special Provisions.

<u>File Name</u>	<u>Special Provision Title</u>	<u>New Location</u>	<u>Effective</u>	<u>Revised</u>
80368	Light Tower	Article 1069.08	July 1, 2016	
80369	Mast Arm Assembly and Pole	Article 1077.03(a)(1)	July 1, 2016	
80338	Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	Recurring CS #35	April 1, 2014	April 1, 2016
80379	Steel Plate Beam Guardrail	Articles 630.02, 630.05, 630.06, and 630.08	Jan. 1, 2017	
80381	Traffic Barrier Terminal, Type 1 Special	Article 631.04	Jan. 1, 2017	
80380	Tubular Markers	Articles 701.03, 701.15, 701.18, and 1106.02	Jan. 1, 2017	

The following special provisions require additional information from the designer. The additional information needs to be submitted as a separate document. The Project Development and Implementation section will then include the information in the applicable special provision. The Special Provisions are:

- Bridge Demolition Debris
- Building Removal - Case I
- Building Removal - Case II
- Building Removal - Case III
- Building Removal-Case IV
- Completion Date
- Completion Date Plus Working Days
- DBE Participation
- Material Transfer Device
- Railroad Protective Liability Insurance
- Training Special Provisions
- Working Days

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012

Revise: January 1, 2013

Revise Section 1031 of the Standard Specifications to read:

“SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

1031.01 Description. Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

- (a) Reclaimed Asphalt Pavement (RAP). RAP is the material produced by cold milling or crushing an existing hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.
- (b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum “Reclaimed Asphalt Shingle (RAS) Sources”, by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 93 percent passing the #4 (4.75 mm) sieve based on a dry shake gradation. RAS shall be uniform in gradation and asphalt binder content and shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.
 - (1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.
 - (2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

- (a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type as listed below (i.e. “Homogeneous Surface”).

Prior to milling, the Contractor shall request the District provide documentation on the quality of the RAP to clarify the appropriate stockpile.

- (1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be fractionated prior to testing by screening into a minimum of two size fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP shall pass the sieve size specified below for the mix the FRAP will be incorporated.

Mixture FRAP will be used in:	Sieve Size that 100% of FRAP Shall Pass
IL-25.0	2 in. (50 mm)
IL-19.0	1 1/2 in. (40 mm)
IL-12.5	1 in. (25 mm)
IL-9.5	3/4 in. (20 mm)
IL-4.75	1/2 in. (13 mm)

- (2) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.
- (3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag.
- (4) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, HMA (High or Low ESAL), or "All Other" (as defined by Article 1030.04(a)(3)) mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag.
- (5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP/FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

- (b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall not be intermingled. Each stockpile shall be signed indicating what type of RAS is present.

Unless otherwise approved by the Engineer, mechanically blending manufactured sand (FM 20 or FM 22) up to an equal weight of RAS with the processed RAS will be permitted to improve workability. The sand shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The sand shall be accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type and lot number shall be maintained by project contract number and kept for a minimum of three years.

1031.03 Testing. RAP/FRAP and RAS testing shall be according to the following.

- (a) RAP/FRAP Testing. When used in HMA, the RAP/FRAP shall be sampled and tested either during or after stockpiling.

- (1) During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

- (2) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Each sample shall be split to obtain two equal samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

- (b) RAS Testing. RAS or RAS blended with manufactured sand shall be sampled and tested during stockpiling according to Illinois Department of Transportation Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Source".

Samples shall be collected during stockpiling at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 250 tons (225 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a ≤ 1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS or RAS blended with manufactured sand shall be stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

Before testing, each sample shall be split to obtain two test samples. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall perform a washed extraction and test for unacceptable materials on the other test sample according to Department procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

If the sampling and testing was performed at the shingle processing facility in accordance with the QC Plan, the Contractor shall obtain and make available all of the test results from start of the initial stockpile.

1031.04 Evaluation of Tests. Evaluation of tests results shall be according to the following.

- (a) Evaluation of RAP/FRAP Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable G_{mm} . Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	FRAP/Homogeneous /Conglomerate	Conglomerate "D" Quality
1 in. (25 mm)		$\pm 5 \%$
1/2 in. (12.5 mm)	$\pm 8 \%$	$\pm 15 \%$
No. 4 (4.75 mm)	$\pm 6 \%$	$\pm 13 \%$
No. 8 (2.36 mm)	$\pm 5 \%$	
No. 16 (1.18 mm)		$\pm 15 \%$
No. 30 (600 μm)	$\pm 5 \%$	
No. 200 (75 μm)	$\pm 2.0 \%$	$\pm 4.0 \%$
Asphalt Binder	$\pm 0.4 \%$ ^{1/}	$\pm 0.5 \%$
G_{mm}	± 0.03	

1/ The tolerance for FRAP shall be $\pm 0.3 \%$.

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, the RAP/FRAP shall not be used in HMA unless the

RAP/FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

- (b) Evaluation of RAS and RAS Blended with Manufactured Sand Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	± 5 %
No. 30 (600 µm)	± 4 %
No. 200 (75 µm)	± 2.0 %
Asphalt Binder Content	± 1.5 %

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, or if the percent unacceptable material exceeds 0.5 percent by weight of material retained on the # 4 (4.75 mm) sieve, the RAS or RAS blend shall not be used in Department projects. All test data and acceptance ranges shall be sent to the District for evaluation.

1031.05 Quality Designation of Aggregate in RAP/FRAP.

- (a) RAP. The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.
- (1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
 - (2) RAP from Superpave/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
 - (3) RAP from Class I, Superpave/HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
 - (4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.
- (b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Coarse and fine FRAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications.

1031.06 Use of RAP/FRAP and/or RAS in HMA. The use of RAP/FRAP and/or RAS shall be a Contractor's option when constructing HMA in all contracts.

(a) RAP/FRAP. The use of RAP/FRAP in HMA shall be as follows.

- (1) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.
- (2) Steel Slag Stockpiles. Homogeneous RAP stockpiles containing steel slag will be approved for use in all HMA (High ESAL and Low ESAL) Surface and Binder Mixture applications.
- (3) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be FRAP or homogeneous in which the coarse aggregate is Class B quality or better. RAP/FRAP from Conglomerate stockpiles shall be considered equivalent to limestone for frictional considerations. Known frictional contributions from plus #4 (4.75 mm) homogeneous RAP and FRAP stockpiles will be accounted for in meeting frictional requirements in the specified mixture.
- (4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.
- (5) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, homogeneous, conglomerate, or conglomerate DQ.
- (6) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in Article 1031.06(c)(1) below for a given N Design.

- (b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.
- (c) RAP/FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with RAP or FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.
- (1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the Max RAP/RAS ABR table listed below for the given Ndesign.

RAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures ^{1/, 2/}	RAP/RAS Maximum ABR %		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	30	30	10
50	25	15	10
70	15	10	10
90	10	10	10
105	10	10	10

1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the RAP/RAS ABR shall not exceed 50 percent of the mixture.

2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275 °F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when RAP/RAS ABR exceeds 25 percent (i.e. 26 percent RAP/RAS ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

- (2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the FRAP/RAS tables listed below for the given N design.

Level 1 - FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures ^{1/, 2/}	Level 1 - FRAP/RAS Maximum ABR %		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified ^{3/, 4/}
30	35	35	10

50	30	25	10
70	25	20	10
90	20	15	10
105	10	10	10

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N30, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When FRAP/RAS ABR exceeds 20 percent for all mixes the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275 °F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP/RAS ABR exceeds 25 percent (i.e. 26 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).
- 3/ For SMA the FRAP/RAS ABR shall not exceed 20 percent.
- 4/ For IL-4.75 mix the FRAP/RAS ABR shall not exceed 20 percent.

Level 2 – FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures <small>1/, 2/</small>	Level 2 – FRAP/RAS Maximum ABR %		
	Binder/Leveling Binder	Surface	Polymer Modified ^{3/} _{4/}
30	40	40	10
50	40	30	10
70	30	20	10
90	30	20	10
105	30	15	10

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N30, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When FRAP/RAS ABR exceeds 20 percent for all mixes the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275 °F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP/RAS ABR exceeds 25 percent (i.e. 26 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

3/ For SMA the FRAP/RAS ABR shall not exceed 20 percent.

4/ For IL-4.75 mix the FRAP/RAS ABR shall not exceed 30 percent.

1031.07 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the above detailed requirements.

FRAP/RAS mix designs exceeding the Level 1 FRAP/RAS Maximum ABR percentages shall be tested prior to submittal for verification, according to Illinois Modified AASHTO T 324 (Hamburg Wheel) and shall meet the following requirements.

Asphalt Binder Grade	# Repetitions	Max. Rut Depth in. (mm)
PG76-XX	20,000	1/2 (12.5)
PG70-XX	15,000	1/2 (12.5)
PG64-XX	7,500	1/2 (12.5)
PG58-XX	5,000	1/2 (12.5)

- (a) RAP/FRAP and/or RAS. RAP/FRAP and/or RAS designs shall be submitted for volumetric verification. If additional RAP/FRAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein, are outside of the control tolerances set for the original RAP/FRAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP/FRAP stockpiles may be used in the original mix design at the percent previously verified.
- (b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.500 shall be used for mix design purposes.

1031.08 HMA Production. Mixture production where the FRAP/RAS ABR percentage exceeds the Level 1 limits, shall be sampled within the first 500 tons (450 metric tons) on the first day of production with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture conformance is demonstrated prior to start of mix production for a State contract.

- (a) RAP/FRAP. The coarse aggregate in all RAP/FRAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAP/FRAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP/FRAP and either switch to the virgin aggregate design or submit a new RAP/FRAP design.

- (b) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.

When producing HMA containing RAS, a positive dust control system shall be utilized.

- (c) RAP/FRAP and/or RAS. HMA plants utilizing RAP/FRAP and/or RAS shall be capable of automatically recording and printing the following information.

(1) Dryer Drum Plants.

- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.
- c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- d. Accumulated dry weight of RAP/FRAP/RAS in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
- f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
- g. Residual asphalt binder in the RAP/FRAP material as a percent of the total mix to the nearest 0.1 percent.
- h. Aggregate and RAP/FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP/FRAP are printed in wet condition.)

(2) Batch Plants.

- a. Date, month, year, and time to the nearest minute for each print.

- b. HMA mix number assigned by the Department.
- c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
- d. Mineral filler weight to the nearest pound (kilogram).
- f. RAP/FRAP/RAS weight to the nearest pound (kilogram).
- g. Virgin asphalt binder weight to the nearest pound (kilogram).
- h. Residual asphalt binder in the RAP/FRAP/RAS material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.09 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of RAP in aggregate surface course (temporary access entrances only) and aggregate wedge shoulders Type B shall be as follows.

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply. RAP used to construct aggregate surface course and aggregate shoulders shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".
- (b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted."

AGGREGATE QUALITY

Effective July 1, 1990

Revised September 23, 1996

Coarse aggregate for Granular Embankment Special, Sub-base Granular Material, Aggregate Shoulders, Aggregate Surface and Base Courses, and Erosion Control Aggregate shall conform to Article 1004.04 of the Standard Specifications for Road and Bridge Construction except that all of the following revisions to Article 1004.04(b) shall apply:

1. Revise the maximum allowable percentage of weighted average loss when the material is subjected to 5 cycles of sodium sulfate soundness test from 25%, as shown under the Class D of the Quality Chart in Article 1004.01(b) of the Standard Specifications, to 40%; and
2. Revise the maximum allowable percentage of wear as determined by the Los Angeles Abrasion Method from 45%, as shown under Class D of the Quality Chart in Article 1004.01(b) of the Standard Specifications, to 65%; and
3. The sum of the percentages of weighted average loss when the material is subjected to 5 cycles of the sodium sulfate soundness test and the percentage of wear as determined by the Los Angeles Abrasion Method shall not exceed 95%.

100404

State of Illinois
Department of Transportation
Division of Highways
Springfield

SPECIFICATIONS
FOR
BITUMINOUS MIXTURES FOR MAINTENANCE USE
EMULSIFIED ASPHALT TYPE

Serial Number: M17-08

1. DESCRIPTION. These specifications cover coarse-graded and fine-graded bituminous mixtures for use in maintaining small areas on flexible and rigid type pavements. The bituminous premix shall be composed of mineral aggregate uniformly coated with emulsified asphalt HFE-300, or SS-1, or Penetrating Emulsified Asphalt and prepared cold as further described below. The mixtures shall be capable of being loaded into trucks by either hand shovels or power loading equipment, shall be sufficiently workable for placing with shovels, rakes or other hand tools, and shall readily compact by hand tamping, hand or power rolling, or under the action of traffic at the mixing temperature or at temperatures as low as 4 °C (40 °F), immediately after preparation or over a period of several months in a stockpile. The mixtures shall remain in place when used to patch wet or dry pavements and shall be stable under normal traffic conditions.

2. MATERIALS. Control of the materials shall be according to the general requirements of Section 106 of the current *Standard Specifications for Road and Bridge Construction*. At the discretion of the Engineer, a twenty-five pound sample of the aggregate(s), a one-quart sample of the bituminous material, and a one-pint sample of the additive shall be submitted to the Bureau of Materials and Physical Research, 126 East Ash Street, Springfield, Illinois, for checking the dosage rate and compatibility of the additive with the other ingredient materials.

(a) Aggregate

1. Coarse Aggregate shall consist of crushed stone, crushed gravel, or gravel of Class C quality or better, as defined in Article 1004.01 of the *Standard Specifications for Road and Bridge Construction*.
2. Fine Aggregate shall consist of sand, stone sand, or stone screenings* of Class B quality or better, as defined in Article 1003.01 of the *Standard Specifications for Road and Bridge Construction*.

*The use of stone sand or stone screenings will increase in place stability, but reduce stockpile workability.

(b) Bituminous Material

The bituminous materials used shall be either emulsified asphalt HFE-300, SS-1, or Penetrating Emulsified Asphalt.

1. Emulsified asphalt HFE-300 shall conform to the requirements given in Article 1032.06(c) of the Standard Specifications. Emulsified asphalt HFE-300 shall be formulated to possess the characteristics required to produce a mixture conforming to the requirements of this specification.
2. Emulsified asphalt SS-1 shall conform to the requirements given in Article 1032.06(a), of the Standard Specifications.
3. Penetrating Emulsified Asphalt shall be prepared as specified in Article 403.05, except that the spraying (maximum-minimum) application temperature shall be between 60-88 °C (140-190 °F). The penetrating emulsified asphalt shall meet the following requirements when tested according to AASHTO T 59:

Viscosity, Saybolt Furol @ 25°C (77°F)	SFS:	20-500
Sieve Test, retained on 850µm (No. 20) sieve	%:	0.10 max.
Storage Stability Test, 24 hours	%:	1 max.
Stone Coating Test, 3 minutes	:	stone coated thoroughly
Particle Charge	:	negative
pH	:	7.3 min.
Distillation Test:		
Distillation to 260°C (500°F) Residue	%:	65 min.
Oil Distillation by Volume	%:	3 max.
Test on residue from distillation:		
Penetration @ 25°C (77°F), 100 g, 5 sec.	dmm:	300 min.
Float Test @ 60°C (140°F)	sec:	150 min.

3. INSPECTION. The Engineer or his authorized representative shall have access at any time to all parts of the plant in order to verify weights or proportions and character of materials used in the preparation of the mixture. The manufacturer shall afford such facilities as may be required for making inspection at the plant and for collecting and forwarding samples of the bituminous mixture to the Department.

4. PLANT AND EQUIPMENT. Storage facilities and all equipment used in the preparation of the mixture shall be approved by the Department. An approved drier shall be available for surface drying the aggregate when needed. The materials for individual batches shall be measured accurately either by volume or weight, by approved methods and equipment. A batch type mixture of approved design and capacity shall be used in mixing the ingredient materials. However, approval for the use of a continuous mixer may be given if it can be shown that satisfactory results will be obtained.

5. PREPARATION OF MIXTURE. At the time of mixing, the aggregate shall not contain enough moisture to cause drifting of the emulsion from the aggregates. The aggregates and bituminous material shall be measured separately and accurately by weight or volume. When a batch type mixer is used, the aggregates shall be added to the mixer and mixed thoroughly. The bituminous material shall then be added and mixing continued for a period of at least 30 seconds or longer if necessary to produce a homogeneous mixture in which all particles of the aggregate are coated uniformly.

6. COMPOSITION OF MIXTURE. The ingredients shall be combined in such a manner as to produce a mixture which when discharged shall be workable. The mixture shall conform to the following composition limits by weight:

Graduation of Extracted Aggregate: (100%)	Crushed Stone or Crushed Gravel		Gravel	
	Binder Mixture	Surface Mixture	Coarse Surface Mixture	Fine Surface Mixture
Percent Passing Sieves				
3/4 inch	100	----	----	----
1/2 inch	75-94	100	95-100	----
3/8 inch	64-78	90-100	----	95-100
No. 4	32-45	65-86	50-75	50-85
No. 8	25-38	31-54	34-65	38-70
No. 200	0-5.0	0-5.0	0-5.0	0-5.0
Residual Bitumen (Includes Additive)	4.0-5.0	5.0-6.0	4.0-5.0	5.0-6.0

Effective March 1, 2008

This specification supersedes Serial Number M17-07, effective January 15, 2007

VJP/M17-08

State of Illinois
Department of Transportation
Division of Highways
Springfield

SPECIFICATIONS
FOR
BITUMINOUS PREMIX FOR MAINTENANCE USE
INVERTED EMULSIFIED ASPHALT CBAE-2

Serial Number: M48-02

1. DESCRIPTION. The bituminous premix shall be composed of mineral aggregates uniformly coated with inverted emulsified asphalt CBAE-2 plus additive, prepared hot as further described herein, shall exhibit no stripping of the bituminous material from the aggregate when immersed in water immediately after mixing, and shall be capable of being stockpiled over a period of at least six months without hardening. The mixture shall be capable of being loaded into trucks by either hand shovels or power loading equipment, shall be sufficiently workable for placing with shovels, rakes or other hand tools, and shall readily compact by hand tamping, hand or power rolling, or under the action of traffic at the mixing temperature or at temperatures as low as 9 °C (15 °F)., immediately after preparation or over a period of at least six months in a stockpile. The mixture shall remain in place when used to patch wet or dry pavements and shall be stable under normal traffic conditions.

2. MATERIALS. Control of the materials shall be according to the general requirements of Section 106 of the current *Standard Specifications for Road and Bridge Construction*. At the discretion of the Engineer, a twenty-five pound sample of the aggregate (s), a one-quart sample of the bituminous material and a one-pint sample of the additive shall be submitted to the Bureau of Materials and Physical Research, 126 East Ash Street, Springfield, Illinois, for checking the dosage rate and compatibility of the additive with the other ingredient materials.

(a) Aggregate

1. Coarse Aggregate shall consist of crushed stone or crushed gravel, of Class C quality or better, as defined in Article 1004.01 of the *Standard Specifications for Road and Bridge Construction*.
2. Fine Aggregate shall consist of sand, stone sand, or stone screenings of Class B quality or better, as defined in Article 1003.01 of the *Standard Specifications for Road and Bridge Construction*.

(b) Additive

1. When CBAE-2 is used, an anti-stripping additive approved by the Department shall be required. The additive shall be added to the bituminous material at the dosage rate (0.8 to 1.5 percent by weight of total liquid) recommended by the Engineer and shall be thoroughly mixed for at least four (4) hours prior to being incorporated into the mix. A list of approved additives is available on request.

Serial Number: M48-02

(c) Bituminous Material

The bituminous material used shall be inverted emulsified asphalt CBAE-2. Inverted emulsified asphalt CBAE-2 shall conform to the following requirements:

Flash Point (Cleveland open cup), °C (°F)	79+ (175+)
Viscosity, Saybolt Furol at 60 °C (140 °F), sec.	100 - 300
Water Content %, by weight	3 - 9
Asphalt Content %, by weight	65 min.
Solvent Content %, by weight	12 - 25
Tests on Distillation Residue	
Penetration at 25 °C (77 °F), 100 g, 5 sec,	120 - 300
Ductility at 25 °C (77 °F), 5 cm/min, cm	100 min.
Soluble in Trichloroethylene, %	98 min.
Miscibility with water	None

3. INSPECTION. The Engineer or his authorized representative shall have access at any time to all parts of the plant in order to verify weights or proportions and character of materials used in the preparation of the mixture. The manufacturer shall afford such facilities as may be required for making inspection at the plant and for collecting and forwarding samples of the bituminous mixture to the Department.

4. PLANT AND EQUIPMENT. Storage facilities and all equipment used in the preparation of the mixture shall be approved by the Department. An-approved drier shall be available for surface drying the aggregate when needed. The materials for individual batches shall be measured accurately either by volume or weight, by approved methods and equipment. A batch type mixer of approved design and capacity shall be used in mixing the ingredient materials. However, approval for the use of a continuous mixer may be given if it can be shown that satisfactory results will be obtained.

5. PREPARATION OF MIXTURES. These mixtures shall be prepared in a hot-mix asphalt plant. The coarse and fine aggregates shall be accurately proportioned to produce mixtures within the specification limits. For safety reasons, the aggregate shall not be heated to higher than 79 °C (175 °F) when CBAE-2 is used. Scalping screens shall be installed to remove oversize materials. The hot aggregate and bituminous material shall be measured accurately by weight or by volume and mixed in the pug mill mixer until homogeneous and all particles of aggregate are coated uniformly. The mixture shall then be dumped and stockpiled.

6. COMPOSITION OF MIXTURES. The ingredients shall be combined to produce mixtures meeting the approval of the Department and conforming to the following composition limits by weight:

	<u>Binder Mixture</u>	<u>Surface Mixture</u>
Gradation of Extracted Aggregate: (100%)		
Passing 3/4 inch sieve, %	100	
Passing 1/2 inch sieve, %	75 - 94	100
Passing 3/8 inch sieve, %	64 - 78	90 - 100
Passing No. 4 sieve, %	32 - 45	65 - 86
Passing No. 8 sieve, %	25 - 38	31 - 54
Passing No. 200 sieve, %	0 - 5.0	0 - 5.0
Residual Bitumen (Includes Additive)	4.0 - 5.0	4.5 - 6.0

It is the responsibility of the producer to produce mixtures conforming to the requirements of these specifications and satisfactory to the Department.

SAFETY NOTE: Inverted emulsified asphalt CBAE-2 is a combustible liquid and should be handled as a hazardous material. All local, city, county, state and federal regulations in handling a hazardous liquid should be followed.

Effective February 1, 2002

This specification supersedes Serial Number M48-79, effective April 1, 1979.

RWH/dg/M48-02

State of Illinois
Department of Transportation
Division of Highways
Springfield

SPECIFICATIONS
FOR
BITUMINOUS PREMIX FOR MAINTENANCE USE

PROPRIETARY MIXES

Serial Number: M 120-10

1. DESCRIPTION. The patching material shall be composed of a mineral aggregate, plant-mixed with a liquid asphalt and chemical additives from the suppliers of the proprietary mixtures. The bituminous material shall be capable of coating wet aggregates without stripping, and shall be available in various grades so that one such grade will enable a stockpile to remain pliable and workable at a temperature of -26 °C (-15 °F). The patching material shall be capable of maintaining adhesive qualities in patched areas which are damp or wet at time of application, and also after remaining in an uncovered stockpile for up to twelve (12) months.

2. MATERIALS. Control of the materials shall be in accordance with the general requirements of Section 106 of the current Standard Specifications for Road and Bridge Construction. If required, a five kilogram (ten-pound) sample of the mineral aggregate and one-liter (one-quart) sample of the liquid asphalt shall be submitted to the Bureau of Materials and Physical Research, 126 East Ash Street, Springfield, Illinois, for performing the tests specified herein.

(a) Aggregate

All Coarse Aggregate used in the proprietary mixtures shall consist of crushed stone of Class B quality or better as defined in Article 1004.01(a) & (b) of the above cited Standard Specifications.

(b) Bituminous Materials

The bituminous material shall be a formulation of the liquid asphalt blend prepared under the supervision of the proprietary mix supplier. It shall meet the requirements of ASTM D 2026 or ASTM 2027, whichever applies, modified as follows:

	OPTIMIX	QPR-2000	SYLCRETE EV	SYLCRETE VA	UPM	EZ STREET	SMP	SAKRETE ALL WEATHER	PROLINE
ASTM D 92 Flash point (COC) °C (°F) - minimum	94 (200)	94 (200)	94 (200)	94 (200)	94 (200)	94 (200)	94 (200)	94 (200)	121 (250)
ASTM D 2170 Kinematic Viscosity 60 °C (140 °F) mm ² /s (cSt)	350-3000	300-4000	300-4000	300-4000	400-2500	280-400 (cPs)	300-4000	300-4000	400-600
ASTM D 95 Water % - maximum	0.2	0.2	0.2	0.2	0.2	---	0.2	0.2	0.1
ASTM D 402 Distillate % by Volume of Original Sample Temperature Distillate to 225 °C (437 °F) Distillate to 260 °C (500 °F) Distillate to 315 °C (600 °F) Residue from distillation to 360 °C (680 °F) % Volume by Difference	0 0-5 0-21 70-94	0 0-5 0-25 72-95	0 0-5 0-25 ---	0 0-5 0-25 ---	0 0-5 0-18 73-95	0 0-5 8-50 70-95	0 0-5 0-25 72-95	0 0-5 0-25 72-95	0 0-0 0-55 80-90
Residue Tests: ASTM D 2171 Absolute Viscosity 60 °C (140 °F) Pascal Seconds (Poises) ASTM D 5 Penetration 25 °C (77 °F) 100 g, 5s - minimum ASTM D 5 Penetration, modified with cone, 25 °C (77 °F) 150 g, 5s - minimum ASTM D 113 Ductility 21 °C (70 °F) 1 cm/min. cm - minimum ASTM D 113 Ductility 4 °C (39 °F) 1 cm/min, cm - minimum ASTM D 2042 Solubility in Trichloroethylene % - minimum	11.5-44.0 (115-440) --- 200 --- 85 99.0	12.5-42.5 (125-425) 200 --- 100 99.0	12.5-42.5 (125-425) --- 180 100 --- 99.0	12.5-42.5 (125-425) --- 180 100 --- 99.0	12.5-42.5 (125-425) --- 180 --- 100 99.0	12.0-42.5 (120-425) --- 180 100 100 99.0	12.5-42.5 (125-425) 200 --- 100 100 99.0	12.5-42.5 (125-425) 200 --- 100 100 99.0	12.5-42.5 (125-425) 300 --- 100 100 99.9

(c) Stripping Tests

The combined UPM and liquid asphalt shall meet the following stripping tests:

- (1) Stripping Tests: Dry Aggregate. Two-hundred grams of the air-dried aggregate passing the 12.5 mm (½-inch) sieve and retained on the 4.75 mm (No. 4) sieve shall be combined with 6.3 percent, by weight, UPM liquid asphalt and mixed in a hemispherical metal dish with a stiff spatula for three to five minutes or until a uniform coating is obtained. Twenty-five grams of this material shall be immediately place in an oven at $60\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ ($140\text{ }^{\circ}\text{F} \pm 5\text{ }^{\circ}\text{F}$), for eighteen to twenty-four hours, after which it shall be thoroughly mixed and allowed to cool to room temperature. The sample shall then be immersed in water at a temperature of $49\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ ($120\text{ }^{\circ}\text{F} \pm 5\text{ }^{\circ}\text{F}$), and maintained at this temperature for twenty-four hours. At the end of this period, the area of the aggregate remaining coated shall be determined visually while the sample is still immersed in water. Surface coating of at least 90 percent must be retained on the aggregate. A test similar to the above using MC-250 shall be made for comparison.
- (2) Stripping Test: Wet Aggregate. Two-hundred grams of the aggregate passing the 12.5 mm (½-inch) sieve and retained on the 4.75 mm (No. 4) sieve shall be immersed in water for twenty-four hours and the excess water drained off, leaving the aggregate surface wet. This aggregate shall be combined with 6.3 percent, by weight, UPM liquid asphalt and mixed in a hemispherical metal dish with a stiff liquid spatula for three to five minutes or until a uniform coating is obtained. Twenty-five grams of this material shall be immediately place in an oven at $60\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ ($140\text{ }^{\circ}\text{F} \pm 5\text{ }^{\circ}\text{F}$), for eighteen to twenty-four hours, after which it shall be thoroughly mixed and allowed to cool to room temperature. The sample shall then be immersed in water at a temperature of $49\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ ($120\text{ }^{\circ}\text{F} \pm 5\text{ }^{\circ}\text{F}$), and maintained at this temperature for twenty-four hours. At the end of this period, the area of the aggregate remaining coated shall be determined visually while the sample is still immersed in water. Surface coating of at least 90 percent must be retained on the aggregate. A test similar to the above using MC-250 shall be made for comparison. In estimating the percentage of area remaining coated, any thin or translucent area shall not be considered as being coated

Proprietary mixes, Sylcrete EV, Sylcrete VA, Optimix, QPR-2000, EZ Street, SMP, Sakrete All Weather, and Proline shall meet the following stripping tests.

- (1) Place 50 grams of cold mix into a beaker containing 400 ml of boiling distilled water. Bring back to boiling and boil for 3 minutes with constant stirring at 1 revolution per second. At the end of 3 minutes, remove the beaker from the heat source and immediately decant the water. Empty the wet mix onto a paper towel and examine. The retained coating shall not be less than 95 percent.
- (2) AASHTO T 182-06 Coating and Stripping of Bitumen-Aggregate Mixtures.

3. INSPECTION. The Engineer or his authorized representative shall have access at any time to all parts of the plant in order to verify weights or proportions and quality of materials used in the preparation of the mixture. The manufacturer shall afford such facilities as may be required for making inspection at the plant and for collecting and forwarding samples of the ingredient materials and bituminous mixture to the Department.

4. PLANT AND EQUIPMENT. Storage facilities and all equipment used in the preparation of the mixture shall be approved by the Department. An approved drier shall be available for surface drying the aggregate when needed. The materials for individual batches shall be measured accurately, either by volume or weight, by approved methods and equipment. A batch type mixer of approved design and capacity shall be used in mixing the ingredient materials. However, approval for the use of a continuous mixer will be given if it can be shown that satisfactory results will be obtained.

5. PREPARATION OF MIXTURE. The aggregate and Optimix, or QPR-2000, or Sylcrete, or UPM, or EZ Street, or SMP liquid asphalt shall be proportioned into the mixer and mixed for at least 30 seconds or until a uniformly coated mixture is obtained. The liquid asphalt shall be heated to a temperature of $93\text{ }^{\circ}\text{C} \pm 28\text{ }^{\circ}\text{C}$ ($200^{\circ}\text{F} \pm 50^{\circ}\text{F}$), at the time of mixing, and in accordance with the instructions of proprietary mix supplier. When necessary to heat the aggregates, the aggregates should not be heated to more than $68\text{ }^{\circ}\text{C}$ ($155\text{ }^{\circ}\text{F}$).

6. COMPOSITION OF MIXTURE. The ingredients shall be combined to produce a mixture meeting the approval of the Department and conforming to the following composition limits, by weight, as determined by tests of the prepared mixture:

Gradation of Extracted Aggregate (% Passing)^{1/}

SIEVE SIZE	OPTIMIX	SYLCRETE EV AND VA		QPR- 2000	UPM		EZ STREET		SMP		SAKRETE ALL WEATHER	PROLINE
		MIX #1	MIX #2		MIX #1	MIX #2	MIX #1	MIX #2	MIX #1	MIX #2		
12.5 mm (1/2")	100	100	100	100	100	100	100	100	100	100	100	100
9.5 mm (3/8")	90-100	100	90-100	90-100	90-100	100	90-100	95-100	100	90-100	90-100	100
4.75 mm (No. 4)	20-55	85-100	20-55	20-55	15-55	70-100	20-55	80-100	85-100	20-55	20-55	70-100
2.36 mm (No. 8)	5-30	10-40	5-30	5-30			5-30	0-10	10-40	5-30	5-30	20-40
1.18 mm (No. 16)	0-10	0-10	0-10	0-10	0-10	0-10	0-10	0-10	0-10	0-10	0-10	10-30
600 µm (No. 30)		0-7	0-7					0-10				0-25
300 µm (No. 50)	0-5	0-5	0-5	0-5			0-5	0-10	0-5	0-5	0-5	0-20
75 µm (No. 200)	0-2	0-2.5	0-2.5	0-2	0-4	0-4	0-3	1.5-3.5	0-4	0-4	0-2	0-5
Residual Bitumen _{2/}	3-6.5	3-6.5	3-6.5	3-7.0	3.5-6.5	3.5-6.5	3-7	3-7	3.5-7.0	3.5-7.0	3-7.0	4.0-6.0

^{1/}Based on percent of total aggregate weight.

^{2/}Based on percent of total mixture weight.

7. LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC. The laws to be observed; permits and licenses; patented devices; materials, and processes; and responsibility for damage claims, shall be in accordance with the requirements of Section 107 of the above cited Standard Specifications.

Effective June 1, 2010

This specification supersedes Serial Number M 120-07, effective February 1, 2007.

JDP/M120-10