# **INVITATION TO BID**

Bid Invitation Number: 110-2013 Date of Issue: 08/29/2013

Sealed bids will be received in the office of the Division of Central Purchasing, 200 East Main Street, Lexington, Kentucky, until 2:00 PM, prevailing local time on 09/12/2013. Bids must be received by the above-mentioned date and time. Mailed bids should be sent to:

> **Division of Central Purchasing** 200 East Main Street, Rm 338 Lexington, KY 40507, (859) 258-3320

The Lexington-Fayette Urban County Government assumes no responsibility for bids that are not addressed and delivered as indicated above. Bids that are not delivered to the Division of Central Purchasing by the stated time and date will be rejected.

All bids must have the coutside of the envelope.	ompany name and address, bid invitation	on number, and the commodity/service on
Bids are to include all ship	ping costs to the point of delivery located	at: 550 W. Sixth St, Lexington, KY
	Yes X No Performance F Bid Bond (Personal checks and company checks	Bond Required: Yes X No will not be acceptable).
	Commodity/Service	
	Asphalt Overlay for Coolavi	n Park
	See specifications.	
be itemized and atYes The Lexingt	Specifications. Exceptions shall tached to bid proposal submitted.  Procurement Card Usag on-Fayette Urban County Government w	
Submitted by:  Bid must be signed: (original signature)	Signature of Authorized Company R  JOSH CORM  Representative's Name (Typed or printed)	

The Affidavit in this bid must be completed before your firm can be considered for award of this contract.

josh999@hotmail.com

# **AFFIDAVIT**

Comes the Affiant, CRASPHUT, and after being first duly sworr
under penalty of perjury as follows:
1. His/her name is
C&R Asphalt
the entity submitting the bid (hereinafter referred to as "Bidder").
2. Bidder will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the bid is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.  3. Bidder will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.  4. Bidder has authorized the Division of Central Purchasing to verify the abovementioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.  5. Bidder has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Bidder will not violate any provision of the campaign finance laws of the Commonwealth.  6. Bidder has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."  7. Bidder acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.
Further, Affiant sayeth naught.
STATE OF KY
COUNTY OF Fayette
The foregoing instrument was subscribed, sworn to and acknowledged before me
by Josh Coleman on this the 11, day
of <u>Sep.</u> , 2013.
My Commission expires: <u>9-20-15</u> 452046
Michel (servel)
NOTARY PUBLIC STATE AVITARGE

Please refer to Section II. Bid Conditions, Item "U" prior to completing this form.

# I. GREEN PROCUREMENT

### A. ENERGY

The Lexington-Fayette Urban County Government is committed to protecting our environment and being fiscally responsible to our citizens.

The Lexington-Fayette Urban County Government mandates the use of Energy Star compliant products if they are available in the marketplace (go to <a href="www.Energystar.gov">www.Energystar.gov</a>). If these products are available, but not submitted in your pricing, your bid will be rejected as <a href="mailto:non-compliant">non-compliant</a>.

ENERGY STAR is a government program that offers businesses and consumers energy-efficient solutions, making it easy to save money while protecting the environment for future generations.

# Key Benefits

These products use 25 to 50% less energy
Reduced energy costs without compromising quality or performance
Reduced air pollution because fewer fossil fuels are burned
Significant return on investment
Extended product life and decreased maintenance

### B. GREEN SEAL CERTIFIED PRODUCTS

The Lexington-Fayette Urban County Government is also committed to using other environmentally friendly products that do not negatively impact our environment. Green Seal is a non-profit organization devoted to environmental standard setting, product certification, and public education.

Go to <u>www.Greenseal.org</u> to find available certified products. These products will have a reduced impact on the environment and on human health. The products to be used must be preapproved by the LFUCG prior to commencement of any work in any LFUCG facility. If a Green Seal product is not available, the LFUCG must provide a signed waiver to use an alternate product. Please provide information on the Green Seal products being used with your bid response.

### C. GREEN COMMUNITY

The Lexington-Fayette Urban County Government (LFUCG) serves as a principal, along with the University of Kentucky and Fayette County Public Schools, in the Bluegrass Partnership for a Green Community. The Purchasing Team component of the Partnership collaborates on economy of scale purchasing that promotes and enhances environmental initiatives. Specifically, when applicable, each principal is interested in obtaining best value products and/or services which promote environment initiatives via solicitations and awards from the other principals.

If your company is the successful bidder on this Invitation For Bid, do you agree to extend the same product/service pricing to the other principals of the Bluegrass Partnership for a Green Community (i.e. University of Kentucky and Fayette County Schools) if requested?

Government as liquidated damages. Checks of unsuccessful bidders will be returned when the bid has been awarded.

- M. The delivery dates specified by bidder may be a factor in the determination of the successful bidder.
- N. Tabulations of bids received may be mailed to bidders. Bidders requesting tabulations must enclose a stamped, self-addressed envelope with the bid.
- O. The Lexington-Fayette Urban County Government is exempt from Kentucky Sales Tax and Federal Excise Tax on materials purchased from this bid invitation. Materials purchased by the bidder for construction projects are not tax exempt and are the sole responsibility of the bidder.
- P. All material furnished hereunder must be in full compliance with OSHA regulations.
- Q. If more than one bid is offered by one party, or by any person or persons representing a party, all such bids shall be rejected.
- R. Signature on the face of this bid by the Bidder or his authorized representative shall be construed as acceptance of and compliance with all terms and conditions contained herein.
- S. The Entity (regardless of whether construction contractor, non-construction contractor or supplier) agrees to provide equal opportunity in employment for all qualified persons, to prohibit discrimination in employment because of race, color, creed, national origin, sex or age, and to promote equal employment through a positive, continuing program from itself and each of its sub-contracting agents. This program of equal employment opportunity shall apply to every aspect of its employment policies and practices.
- T. The Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) requires that any county, city, town, school district, water district, hospital district, or other political subdivision of the state shall include in directly or indirectly publicly funded contracts for supplies, materials, services, or equipment hereinafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age or national origin;
- (2) The contractor will state in all solicitations or advertisements for employees placed by or on behalf of the contractors that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age or national origin;
- (3) The contractor will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the non-discrimination clauses required by this section; and
- (4) The contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or workers' representative of the contractor's commitments under the nondiscrimination clauses.

# The Act further provides:

# KRS 45.610. Hiring minorities - Information required

- (1) For the length of the contract, each contractor shall hire minorities from other sources within the drawing area, should the union with which he has collective bargaining agreements be unwilling to supply sufficient minorities to satisfy the agreed upon goals and timetable.
- (2) Each contractor shall, for the length of the contract, furnish such information as required by KRS

45.560 to KRS 45.640 and by such rules, regulations and orders issued pursuant thereto and will permit access to all books and records pertaining to his employment practices and work sites by the contracting agency and the department for purposes of investigation to ascertain compliance with KRS 45.560 to 45.640 and such rules, regulations and orders issued pursuant thereto.

# KRS 45.620. Action against contractor - Hiring of minority contractor or subcontractor

- (1) If any contractor is found by the department to have engaged in an unlawful practice under this chapter during the course of performing under a contract or subcontract covered under KRS 45.560 to 45.640, the department shall so certify to the contracting agency and such certification shall be binding upon the contracting agency unless it is reversed in the course of judicial review.
- (2) If the contractor is found to have committed an unlawful practice under KRS 45.560 to 45.640, the contracting agency may cancel or terminate the contract, conditioned upon a program for future compliance approved by the contracting agency and the department. The contracting agency may declare such a contractor ineligible to bid on further contracts with that agency until such time as the contractor complies in full with the requirements of KRS 45.560 to 45.640.
- (3) The equal employment provisions of KRS 45.560 to 45.640 may be met in part by a contractor by subcontracting to a minority contractor or subcontractor. For the provisions of KRS 45.560 to 45.640, a minority contractor or subcontractor shall mean a business that is owned and controlled by one or more persons disadvantaged by racial or ethnic circumstances.

# KRS 45.630 Termination of existing employee not required, when

Any provision of KRS 45.560 to 45.640 notwithstanding, no contractor shall be required to terminate an existing employee upon proof that that employee was employed prior to the date of the contract.

### KRS 45.640 Minimum skills

Nothing in KRS 45.560 to 45.640 shall require a contractor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job.

It is recommended that all of the provisions above quoted to be included as <u>special conditions</u> in each contract. In the case of a contract exceeding \$250,000, the contractor is required to furnish evidence that his work-force in Kentucky is representative of the available work-force in the area from which he draws employees, or to supply an Affirmative Action plan which will achieve such representation during the life of the contract.

U. Any party, firm or individual submitting a proposal pursuant to this invitation must be in compliance with the requirements of the Lexington-Fayette Urban County Government regarding taxes and fees before they can be considered for award of this invitation and must maintain a "current" status with regard to those taxes and fees throughout the term of the contract. The contractor must be in compliance with Chapter 13 from the Code of Ordinances of the Lexington-Fayette Urban County Government. The contractor must be in compliance with Ordinance 35-2000 pursuant to contractor registration with the Division of Building Inspection. If applicable, said business must have a Fayette County business license.

# Pursuant to KRS 45A.343 and KRS 45A.345, the contractor shall

(1) Reveal any final determination of a violation by the contractor within the previous five year period pursuant to KRS Chapters 136 (corporation and utility taxes), 139 (sales and use taxes), 141 (income taxes), 337 (wages and hours), 338 (occupational safety and health of employees), 341

# II. Bid Conditions

- A. No bid may be withdrawn for a period of sixty (60) days after the date and time set for opening.
- B. No bid may be altered after the date and time set for opening. In the case of obvious errors, the Division of Central Purchasing may permit the withdrawal of a bid. The decision as to whether a bid may be withdrawn shall be that of the Division of Central Purchasing.
- C. Acceptance of this proposal shall be enactment of an Ordinance by the Urban County Council.
- D. The bidder agrees that the Urban County Government reserves the right to reject <u>any</u> and <u>all</u> bids for either fiscal or technical reasons, and to award each part of the bid separately or all parts to one vendor.
- E. Minor exceptions may not eliminate the bidder. The decision as to whether any exception is minor shall be entirely that of the head of the requisitioning Department or Division and the Director of the Division of Central Purchasing. The Urban County Government may waive technicalities and informalities where such waiver would best serve the interests of the Urban County Government.
- F. Manufacturer's catalogue numbers, trade names, etc., where shown herein are for descriptive purposes and are to guide the bidder in interpreting the standard of quality, design, and performance desired, and shall not be construed to exclude proposals based on furnishing other types of materials and/or services. However, any substitution or departure proposed by the bidder must be clearly noted and described; otherwise, it will be assumed that the bidder intends to supply items specifically mentioned in this Invitation for Bids.
- G. The Urban County Government may require demonstrations of the materials proposed herein prior to acceptance of this proposal.
- H. Bids must be submitted on this form and must be signed by the bidder or his authorized representative. Unsigned bids will not be considered.
- Bids must be submitted prior to the date and time indicated for opening. Bids submitted after this time
  will not be considered.
- J. All bids mailed must be marked on the face of the envelope:

# "Bid on #110-2013 Asphalt Overlay for Coolavin Park"

and addressed to: Division of Central Purchasing

200 East Main Street, Room 338 Lexington, Kentucky 40507

The Lexington-Fayette Urban County Government assumes no responsibility for bids that are not addressed and delivered as indicated above. Bids that are not delivered to the Division of Central Purchasing by the stated time and date will be rejected.

- K. Bidder is requested to show both unit prices and lot prices. In the event of error, the unit price shall prevail.
- L. A certified / cashier's check or Bid Bond in the amount of XX percent of the bid price must be attached hereto. This check must be made payable to the Lexington-Fayette Urban County Government, and will be returned when the material and/or services specified herein have been delivered in accordance with specifications. In the event of failure to perform within the time period set forth in this bid, it is agreed the certified / cashier's check may be cashed and the funds retained by the Lexington-Fayette Urban County

(unemployment and compensation) and 342 (labor and human rights) that apply to the contractor; and

(2) Be in continuous compliance with the above-mentioned KRS provisions that apply to the contractor for the duration of the contract.

A contractor's failure to reveal the above or to comply with such provisions for the duration of the contract shall be grounds for cancellation of the contract and disqualification of the contractor from eligibility for future contracts for a period of two (2) years.

V. Vendors who respond to this invitation have the right to file a notice of contention associated with the bid process or to file a notice of appeal of the recommendation made by the Director of Central Purchasing resulting from this invitation.

Notice of contention with the bid process must be filed within 3 business days of the bid/proposal opening by (1) sending a written notice, including sufficient documentation to support contention, to the Director of the Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his/her contention with the bid process. After consulting with the Commissioner of Finance the Chief Administrative Officer and reviewing the documentation and/or hearing the vendor, the Director of Central Purchasing shall promptly respond in writing findings as to the compliance with bid processes. If, based on this review, a bid process irregularity is deemed to have occurred the Director of Central Purchasing will consult with the Commissioner of Finance, the Chief Administrative Officer and the Department of Law as to the appropriate remedy.

Notice of appeal of a bid recommendation must be filed within 3 business days of the bid recommendation by (1) sending a written notice, including sufficient documentation to support appeal, to the Director, Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his appeal. After reviewing the documentation and/or hearing the vendor and consulting with the Commissioner of Finance and the Chief Administrative Officer, the Director of Central Purchasing shall in writing, affirm or withdraw the recommendation.

# **EQUAL OPPORTUNITY AGREEMENT**

# The Law

- Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.
- Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and sub-contractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.
- Section 503 of the Rehabilitation Act of 1973 states:

The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap.

- Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal contracts.
- Section 206(A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:

The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.

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The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractors may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

#### Bidders

I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, Vietnam veterans, handicapped and aged persons.

C) OL COL

Name of Business

9 of 27

# **WORKFORCE ANALYSIS FORM**

Categories	Total	White		Latino		Black		Oth
		М	F	М	F	M	F	М
Administrators		)	j					
Professionals		2						
Superintendents		3						
Supervisors								
Foremen		3		i				
Technicians		14		8				
Protective Service								
Para-Professionals								
Office/Clerical		2	1					
Skilled Craft		2		2		1		
Service/Maintenance		3						
Total:	V-10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	30	2	11		5		16/2

Prepared by: Name & Title

# DIRECTOR, DIVISION OF CENTRAL PURCHASING LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT 200 EAST MAIN STREET LEXINGTON, KENTUCKY 40507

# NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITIES AND DBE CONTRACT PARTICIPATION

The Lexington-Fayette Urban County Government has set a goal that not less than ten percent (10%) of the total value of this contract be subcontracted to MBE/WBE's. The goal for the utilization of certified MBE/WBE's as subcontractors are recommended goals. Contractors who fail to meet such goals will be expected to provide written explanations to the Director of the Division of Central Purchasing of efforts they have made to accomplish the recommended goals and the extent to which they are successful in accomplishing the recommended goals will be a consideration in the procurement process.

For assistance in locating MBE/WBE Subcontractors contact Marilyn Clark at 859/258-3320 or by writing the address listed below:

Marilyn Clark, Division of Central Purchasing Lexington-Fayette Urban County Government 200 East Main Street – Room 338 Lexington, Kentucky 40507

# Lexington-Fayette Urban County Government MWDBE PARTICIPATION GOALS

### A. GENERAL

- The LFUCG request all potential contractors to make a concerted effort to include Minority-Owned (MBE), Woman-Owned (WBE) and Disadvantaged (DBE) Business Enterprises as subcontractors or suppliers in their bids.
- Toward that end, the LFUCG has established 10% of total procurement costs as a Goal for participation of Minority-Owned, Woman-Owned and Disadvantaged Businesses on this contract.
- 3) It is therefore a request of each Bidder to include in its bid, the same goal (10%) for MWDBE participation and other requirements as outlined in this section.

### B. PROCEDURES

- The successful bidder will be required to report to the LFUCG, the dollar amounts
  of all payments submitted to Minority-Owned or Woman-Owned subcontractors
  and suppliers for work done or materials purchased for this contract. (See
  Subcontractor Monthly Payment Report)
- 2) Replacement of a Minority-Owned or Woman-Owned subcontractor or supplier listed in the original submittal must be requested in writing and must be accompanied by documentation of Good Faith Efforts to replace the subcontractor / supplier with another MWDBE Firm; this is subject to approval by the LFUCG. (See LFUCG MWDBE Substitution Form)
- 3) For assistance in identifying qualified, certified businesses to solicit for potential contracting opportunities, bidders may contact:
  - a) The Lexington-Fayette Urban County Government, Division of Central Purchasing (859-258-3320)
- 4) The LFUCG will make every effort to notify interested MWDBE subcontractors and suppliers of each Bid Package, including information on the scope of work, the pre-bid meeting time and location, the bid date, and all other pertinent information regarding the project.

### C. DEFINITIONS

 A Minority-Owned Business Enterprise (MBE) is defined as a business which is certified as being at least 51% owned and operated by persons of African American, Hispanic, Asian, Pacific Islander, American Indian or Alaskan Native Heritage.

- 2) A Woman-Owned Business Enterprise (WBE) is defined as a business which is certified as being at least 51% owned and operated by one or more Non-Minority Females.
- 3) A Disadvantaged Business (DBE) is defined as a business which is certified as being at least 51% owned and operated by a person(s) that are economically and socially disadvantaged.
- 4) Good Faith Efforts are efforts that, given all relevant circumstances, a bidder or proposer actively and aggressively seeking to meet the goals, can reasonably be expected to make. In evaluating good faith efforts made toward achieving the goals, whether the bidder or proposer has performed the efforts outlined in the Obligations of Bidder for Good Faith Efforts outlined in this document will be considered, along with any other relevant factors.

### D. OBLIGATION OF BIDDER FOR GOOD FAITH EFFORTS

- 1) The bidder shall make a Good Faith Effort to achieve the Participation Goal for MWDBE subcontractors/suppliers. The failure to meet the goal shall not necessarily be cause for disqualification of the bidder; however, bidders not meeting the goal are required to furnish with their bids written documentation of their Good Faith Efforts to do so.
- Award of Contract shall be conditioned upon satisfaction of the requirements set forth herein.
- 3) The Form of Proposal includes a section entitled "MWDBE Participation Form". The applicable information must be completed and submitted as outlined below.
- 4) Failure to submit this information as requested may be cause for rejection of bid.

# E. DOCUMENTATION REQUIRED FOR GOOD FAITH EFFORTS

- 1) Bidders reaching the Goal are required to submit only the MWDBE Participation Form." The form must be fully completed including names and telephone number of participating MWDBE firm(s); type of work to be performed; estimated value of the contract and value expressed as a percentage of the total Lump Sum Bid Price. The form must be signed and dated, and is to be submitted with the bid.
- 2) Bidders not reaching the Goal must submit the "MWDBE Participation Form", the "Quote Summary Form" and a written statement documenting their Good Faith Effort to do so. If bid includes no MWDBE participation, bidder shall enter "None" on the subcontractor / supplier form). In addition, the bidder must submit written proof of their Good Faith Efforts to meet the Participation Goal:
  - a. Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications

- or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms to participate.
- b. Included documentation of advertising in the above publications with the bidders good faith efforts package
- c. Attended LFUCG Central Purchasing Economic Inclusion Outreach event
- d. Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs of subcontracting opportunities
- e. Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms
- f. Requested a list of MWDBE subcontractors or suppliers from LFUCG Economic Engine and showed evidence of contacting the companies on the list(s).
- g. Contacted organizations that work with MWDBE companies for assistance in finding certified MWBDE firms to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.
- h. Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs soliciting their participation in the contract not less that seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.
- i. Followed up initial solicitations by contacting MWDBEs to determine their level of interest.
- j. Provided the interested MWBDE firm with adequate and timely information about the plans, specifications, and requirements of the contract.
- k. Selected portions of the work to be performed by MWDBE firms in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate MWDBE participation, even when the prime contractor may otherwise perform these work items with its own workforce
- I. Negotiated in good faith with interested MWDBE firms not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached.
- m. Included documentation of quotations received from interested MWDBE firms which were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not

be submitting a bid.

- n. Bidder has to submit sound reasons why the quotations were considered unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a MWDBE quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy MWDBE goals.
- o. Made an effort to offer assistance to or refer interested MWDBE firms to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal
- p. Made efforts to expand the search for MWBE firms beyond the usual geographic boundaries.
- q. Other--any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include MWDBE participation.

Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement. Documentation of Good Faith Efforts are to be submitted with the Bid, if the participation Goal is not met.



### MINORITY BUSINESS ENTERPRISE PROGRAM

Marilyn Clark
Minority Business Enterprise Liaison
Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street
Lexington, KY 40507
mclark@lexingtonky.gov
859-258-3323

OUR MISSION: The mission of the Minority Business Enterprise Program is to facilitate the full participation of minority and women owned businesses in the procurement process and to promote economic inclusion as a business imperative essential to the long term economic viability of Lexington-Fayette Urban County Government.

To that end the city council adopted and implemented resolution 167-91—Disadvantaged Business Enterprise (DBE) 10% Goal Plan in July of 1991. The resolution states in part (a full copy is available in Central Purchasing):

"A Resolution supporting adoption of the administrative plan for a ten percent (10%) Minimum goal for disadvantaged business enterprise participation in Lexington-Fayette Urban County Government construction and professional services contracts; Providing that as part of their bids on LFUCG construction contracts, general Contractors shall make a good faith effort to award at least ten percent (10%) of All subcontracts to disadvantaged business enterprises; providing that divisions of LFUCG shall make a good faith effort to award at least ten percent of their Professional services and other contracts to disadvantaged business enterprises..."

A Disadvantaged Business Enterprise is defined as a business that has been certified as being at least 51% owned, operated and managed by a U.S. Citizen of the following groups:

- African-American
- Hispanic-American
- Asian/Pacific Islander
- Native American/Native Alaskan
- Non-Minority Female
- Economically and Socially Disadvantaged

We have compiled the list below to help you locate certified MBE, WBE and DBE certified businesses. Below is a listing of contacts for LFUCG Certified MWDBEs in Economic Engine (https://lfucg.economicengine.com)

Business	Contact	Email Address	Phone
LFUCG	Marilyn Clark	mclark@lexingtonky.gov	859-258-3323
Commerce Lexington - Minority Business Development	Tyrone Tyra	ttyra@commercelexington.com	859-226-1625
Tri-State Minority Supplier Diversity Council	Sonya Brown	sbrown@tsmsdc.com	502-625-013/
Small Business Development Council	Dee Dee Harbut UK SBDC	dharbut@uky.edu	
	Shiree Mack	smack@uky.edu	
Community Ventures Corporation	James Coles	icoles@cycky.org	859-231-0054
KY Department of Transportation	Melvin Bynes	Melvin bynes@ky.gov	502-564-3601
	Shella Eagle	Shella.Eagle@ky.gov	502-564-3601
Ohio River Valley Women's Business Council (WBENC)	Rea Waldon	rwaldon@gcul.org	513-487-6534
Kentucky MWBE Certification Program	Yvette Smith, Kentucky Finance Cabinet	Yvette.Smith@ky.gov	502-564-8099
National Women Business Owner's Council (NWBOC)	Janet Harris-Lange	janet@nwboc.org	800-675-5066
Small Business Administration	Robert Coffey	robertcoffey@sba.gov	502-582-5971
LaVoz de Kentucky	Andres Cruz	lavozdeky@yahoo.com	859-621-2106
The Key News Journal	Patrice Muhammad	paatricem@keynewsjournal.com	859-373-9428



# LFUCG MWDBE PARTICIPATION FORM Bid/RFP/Quote Reference # 89 - 2013

The MWDBE subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately.

MWDBE Company, Name, Address, Phone, Email	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1.	NO MV	DBE	
2.	all work	to be	
3.	Self-p	erfermed	
4.			

The undersigned company representative subn	nits the above list of MWDBE firms to be used in
accomplishing the work contained in this Bid/	RFP/Quote. Any misrepresentation may result in the
termination of the contract and/or be subject	to applicable Federal and State laws concerning false
statements and false claims.	
C&R	Josh Coleman Jose
Company	Company Representative
9-11-13	mar.
Date	Title /



LFUCG MWDBE SUBSTITUTION	N FORM
LFUCG MWDBE SUBSTITUTION Bid/RFP/Quote Reference #	89-2013

The substituted MWDBE subcontractors listed below have agreed to participate on this Bid/RFP/Quote. These substitutions were made prior to or after the job was in progress. These substitutions were made for reasons stated below and are now being submitted to Central Purchasing for approval. By the authorized signature of a representative of our company, we understand that this information will be entered into our file for this project.

SUBSTITUTED MWDBE Company Name, Address, Phone, Email	MWDBE Formally Contracted/ Name, Address, Phone, Email	Work to Be Performed	Reason for the Substitution	Total Dollar Value of the Work	% Value of Total Contract
1.		NONE			
2.	alli	work to	be		
3.		Self-	pertormu	d	
4.					

E	ny misrepresentation may result in termination of the contract and/or be subject to terming false statements and false claims.	<i>→,</i>
Car	CER Josh Coleman Joseful	
Company	Company Representative	
9-11-13	Mar.	
Date	Title U	



MWDBE QUOTE SUMMARY FORM
MWDBE QUOTE SUMMARY FORM Bid/RFP/Quote Reference #
The undersigned acknowledges that the minority subcontractors listed on this form
did submit a quote to participate on this project.

Company Name			Contac	Contact Person			
Address/Phone/Email			Bid Pa	Bid Package / Bid Date			
MWDBE Company Address	Contact Person	Contact Information (work phone, Email, cell)	Date Contacted	Services to be performed	Method of Communication (email, phone meeting, ad, event etc)	Total dollars \$\$ Do Not Leave Blank (Attach Documentation)	MBE * AA HA AS NA Female
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(MBE designation / AA=African American / HA= Hispanic American/AS = Asian American/Pacific Islander/ NA= Native American)

•	, , , ,
The undersigned acknowledges that all information is accurate. An	y missepresentation may result in termination of the contract and/or be subject to
applicable Federal and State laws concerning false statements and c	laums
	Josh Coleman fort
Company	Company Representative
9-11-13	$\underline{\hspace{1cm}}$ $Mo_{1}r$ .
Date	Title



Bid/RFP/Quote #\_\_\_

### LFUCG SUBCONTRACTOR MONTHLY PAYMENT REPORT

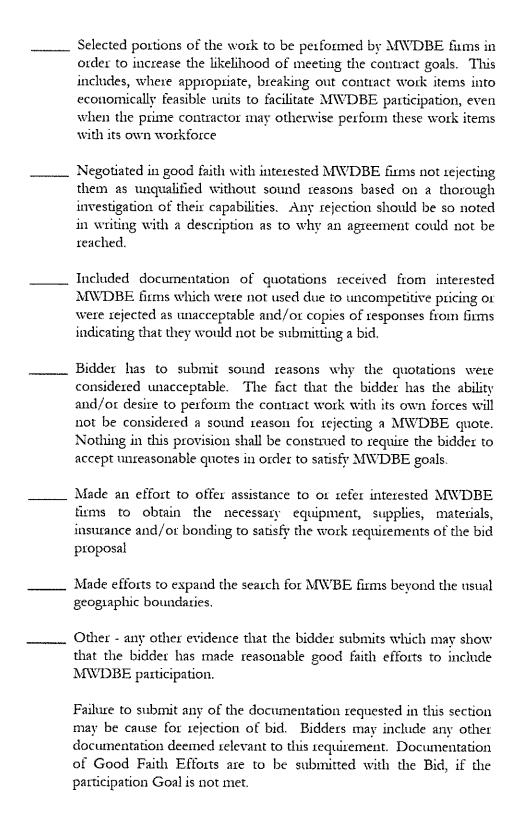
The LFUCG has a 10° s goal plan adopted by city council to increase the participation of minority and women owned businesses in the procurement process. In order to measure that goal LFUCG will track spending with MWDBE vendors on a monthly basis. By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentation may result in termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims. Please submit this form monthly to the Division of Central Purchasing/ 200 East Main Street / Room 338 / Lexington, KY 40507.

Total Contract Amount Awarded to Prime Contractor for this Project\_

Project Name / Contract #  Company Name:  Federal Tax ID:			Work Period/ From: To:				
			Address: Contact Person:				
							Subcontractor Vendor ID (name, address, phone, email
		No r	ninor	ity C	ontract	ØYS	
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				nd a Different for the definition removes the missesser.		To the common part of the common	(1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
each of the re	presentations	set forth below	is true. Any	misrepresentati ws concerning	certify that the infe ions may result in the false statements and	e termination false claims.	of the contract
Company			Company Representative				
	9-11-13	3			Mar.		<u></u>
Date			Title U				

# 

By the signature below of an authorized company representative, we certify that we have utilized the following Good Faith Efforts to obtain the maximum participation by MWDBE business enterprises on the project and can supply the appropriate documentation.
Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms to participate.
Included documentation of advertising in the above publications with the bidders good faith efforts package
Attended LFUCG Central Purchasing Economic Inclusion Outreach event
Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs of subcontracting opportunities
Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms
Requested a list of MWDBE subcontractors or suppliers from LFUCG Economic Engine and showed evidence of contacting the companies on the list(s).
Contacted organizations that work with MWDBE companies for assistance in finding certified MWBDE firms to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.
Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs soliciting their participation in the contract not less that seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.
Followed up initial solicitations by contacting MWDBEs to determine their level of interest.
Provided the interested MWBDE firm with adequate and timely information about the plans, specifications, and requirements of the contract.



The undersigned acknowledges that all information is accurate. Any misrepresentations may result in termination of the contract and/or be subject to applicable Federal and State laws

concerning false statements and claims.	Josh Colm
Company	Company Representative
9-11-13	mar.
Date	Title

### GENERAL PROVISIONS OF BID CONTRACT

By signing the below, bidder acknowledges that it understands and agrees with the following provisions related to its bid response and the provision of any goods or services to LFUCG upon selection by LFUCG pursuant to the bid request:

- 1. Bidder shall comply with all Federal, State & Local regulations concerning this type of service or good.
- 2. Failure to submit ALL forms and information required by LFUCG may be grounds for disqualification.
- 3. Addenda: All addenda, if any, must be considered by the bidder in making its response, and such addenda shall be made a part of the requirements of the bid contract. Before submitting a bid response, it is incumbent upon bidder to be informed as to whether any addenda have been issued, and the failure of the bidder to cover any such addenda may result in disqualification of that response.
- 4. Bid Reservations: LFUCG reserves the right to reject any or all bid responses, to award in whole or part, and to waive minor immaterial defects in proposals. LFUCG may consider any alternative proposal that meets its basic needs.
- 5. Liability: LFUCG is not responsible for any cost incurred by bidder in the preparation of its response.
- 6. Changes/Alterations: Bidder may change or withdraw a proposal at any time prior to the opening; however, no oral modifications will be allowed. Only letters, or other formal written requests for modifications or corrections of a previously submitted proposal which is addressed in the same manner as the bid response, and received by LFUCG prior to the scheduled closing time for receipt of bids, will be accepted. The bid response when opened, will then be corrected in accordance with such written request(s), provided that the written request is contained in a sealed envelope which is plainly marked "modifications of bid response".
- 7. Clarification of Submittal: LFUCG reserves the right to obtain clarification of any point in a bid or to obtain additional information from any bidder.
- 8. Bribery Clause: By his/her signature on its response, bidder certifies that no employee of his/hers, any affiliate or subcontractor, has bribed or attempted to bribe an officer or employee of the LFUCG.
- 9. Additional Information: While not necessary, the bidder may include any product brochures, software documentation, sample reports, or other documentation that may assist LFUCG in better understanding and evaluating the bid response. Additional documentation shall not serve as a substitute for other documentation which is required by the LFUCG to be submitted with the bid response.
- 10. Ambiguity, Conflict or other Errors: If a bidder discovers any ambiguity, conflict, discrepancy, omission or other error in the bid request of LFUCG, it shall

- immediately notify LFUCG of such error in writing and request modification or clarification of the document if allowable by the LFUCG.
- 11. Agreement to Bid Terms: In submitting its bid response, the bidder agrees that it has carefully examined the specifications and all provisions relating to LFUCG's bid request, including but not limited to the bid contract. By submission of its bid response, bidder states that it understands the meaning, intent and requirements of LFUCG's bid request and agrees to the same. The successful bidder shall warrant that it is familiar with and understands all provisions herein and shall warrant that it can comply with them. No additional compensation to bidder shall be authorized for services, expenses, or goods reasonably covered under these provisions that the bidder omits from its bid response.
- 12. Cancellation: LFUCG may unilaterally terminate the bid contract with the selected bidder(s) at any time, with or without cause, by providing at least thirty (30) days advance written notice unless a different advance written notice period is negotiated prior to contract approval. Payment for services or goods received prior to termination shall be made by the LFUCG provided these goods or services were provided in a manner acceptable to the LFUCG. Payment for those goods and services shall not be unreasonably withheld.
- 13. Assignment of Contract: The selected bidder(s) shall not assign or subcontract any portion of the bid contract with LFUCG without the express written consent of LFUCG. Any purported assignment or subcontract in violation hereof shall be void. It is expressly acknowledged that LFUCG shall never be required or obligated to consent to any request for assignment or subcontract; and further that such refusal to consent can be for any or no reason, fully within the sole discretion of LFUCG.
- 14. No Waiver: No failure or delay by LFUCG in exercising any right, remedy, power or privilege hereunder, nor any single or partial exercise thereof, nor the exercise of any other right, remedy, power or privilege shall operate as a waiver hereof or thereof. No failure or delay by LFUCG in exercising any right, remedy, power or privilege under or in respect of this bid proposal or bid contract shall affect the rights, remedies, powers or privileges of LFUCG hereunder or shall operate as a waiver thereof.
- Authority to do Business: Each bidder must be authorized to do business under the laws of the Commonwealth of Kentucky and must be in good standing and have full legal capacity to provide the goods or services specified in the bid proposal. Each bidder must have all necessary right and lawful authority to submit the bid response and enter into the bid contract for the full term hereof including any necessary corporate or other action authorizing the bidder to submit the bid response and enter into this bid contract. If requested, the bidder will provide LFUCG with a copy of a corporate resolution authorizing this action and/or a letter from an attorney confirming that the proposer is authorized to do business in the Commonwealth of Kentucky. All bid responses must be signed by a duly authorized officer, agent or employee of the bidder.
- 16. Governing Law: This bid request and bid contract shall be governed by and

construed in accordance with the laws of the Commonwealth of Kentucky. In the event of any proceedings regarding this matter, the bidder agrees that the venue shall be the Fayette County Circuit Court or the U.S. District Court for the Eastern District of Kentucky, Lexington Division and that the bidder expressly consents to personal jurisdiction and venue in such Court for the limited and sole purpose of proceedings relating to these matters or any rights or obligations arising thereunder.

- 17. Ability to Meet Obligations: Bidder affirmatively states that there are no actions, suits or proceedings of any kind pending against bidder or, to the knowledge of the bidder, threatened against the bidder before or by any court, governmental body or agency or other tribunal or authority which would, if adversely determined, have a materially adverse effect on the authority or ability of bidder to perform its obligations under this bid response or bid contract, or which question the legality, validity or enforceability hereof or thereof.
- 18. Bidder understands and agrees that its employees, agents, or subcontractors are not employees of LFUCG for any purpose whatsoever. Bidder is an independent contractor at all times related to the bid response or bid contract.
- 19. If any term or provision of this bid contract shall be found to be illegal or unenforceable, the remainder of the contract shall remain in full force and such term or provision shall be deemed stricken.

Signature

Date

# RISK MANAGEMENT PROVISIONS INSURANCE AND INDEMNIFICATION Bid #110-2013 Asphalt Overlay for Coolavin Park

# INDEMNIFICATION AND HOLD HARMLESS PROVISION

- (1) It is understood and agreed by the parties that Contractor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Contractor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "CONTRACTOR") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- (2) CONTRACTOR shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "LFUCG") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by CONTRACTOR's performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the CONTRACTOR; and (b) not caused solely by the active negligence or willful misconduct of LFUCG.
- (3) In the event LFUCG is alleged to be liable based upon the above, CONTRACTOR shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and expenses, using attorneys approved in writing by LFUCG, which approval shall not be unreasonably withheld.
- (4) These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.

# **FINANCIAL RESPONSIBILITY**

BIDDER/CONTRACTOR understands and agrees that it shall, prior to final acceptance of its bid and the commencement of any work, demonstrate the ability to assure compliance with the above Indemnity provisions and these other risk management provisions.

# **INSURANCE REQUIREMENTS**

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW, AAND YOU MAY NEED TO CONFER WITH YOUR INSURANCE AGENTS, BROKERS, OR CARRIERS TO DETERMINE IN ADVANCE OF SUBMISSION OF A RESPONSE THE AVAILABILITY OF THE INSURANCE COVERAGES AND ENDORSEMENTS REQUIRED HEREIN. IF YOU FAIL TO COMPLY WITH THE INSURANCE REQUIREMENTS BELOW, YOU MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

### Required Insurance Coverage

BIDDER/CONTRACTOR shall procure and maintain for the duration of this contract the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain similar insurance with limits acceptable to LFUCG in order to protect LFUCG against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONTRACTOR. The cost of such insurance shall be included in any bid:

Coverage	<u>Limits</u>
General Liability (Insurance Services Office Form CG 00 01)	\$1 million per occurrence, \$2 million aggregate or \$2 million combined single limit
Commercial Automobile Liability (Insurance Services Office Form CA 0001)	combined single, \$1 million per occurrence
Worker's Compensation	Statutory
Employer's Liability	\$500,000.00

The policies above shall contain the following conditions:

- a. All Certificates of Insurance forms used by the insurance carrier shall be properly filed and approved by the Department of Insurance for the Commonwealth of Kentucky (DOI). LFUCG shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy using the Kentucky DOI approved forms.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by LFUCG.
- c. The General Liability Policy shall include a Products and Completed Operations endorsement or Premises and Operations Liability and a Products Liability endorsement unless it is deemed not to apply by LFUCG.
- d. The General Liability Policy shall include a Pollution liability and/or Environmental Casualty endorsement unless it is deemed not to apply by LFUCG.
- e. LFUCG shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.
- f. Said coverage shall be written by insurers acceptable to LFUCG and shall be in a form acceptable to LFUCG. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

# Renewals

After insurance has been approved by LFUCG, evidence of renewal of an expiring policy must be submitted to LFUCG, and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, DIVISION OF RISK MANAGEMENT, 200 EAST MAIN STREET, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE RESPONSE DATE. Self-insurance programs, deductibles, and self-insured retentions in insurance policies are subject to separate approval by Lexington-Fayette Urban County Government's Division of Risk Management, upon review of evidence of BIDDER/CONTRACTOR's financial capacity to respond to claims. Any such programs or retentions must provide LFUCG with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance coverage. If BIDDER/CONTRACTOR satisfies any portion of the insurance requirements through deductibles, self-insurance programs, or self-insured retentions, BIDDER/CONTRACTOR agrees to provide Lexington-Fayette Urban County Government, Division of Risk Management, the following data prior to the final acceptance of bid and the commencement of any work:

- a. Latest audited financial statement, including auditor's notes.
- b. Any records of any self-insured trust fund plan or policy and related accounting statements.
- c. Actuarial funding reports or retained losses.
- d. Risk Management Manual or a description of the self-insurance and risk management program.
- e. A claim loss run summary for the previous five (5) years.
- f. Self-Insured Associations will be considered.

# Safety and Loss Control

CONTRACTOR shall comply with all applicable federal, state, and local safety standards related to the performance of its works or services under this Agreement and take necessary action to protect the life, health and safety and property of all of its personnel on the job site, the public, and LFUCG.

# Verification of Coverage

BIDDER/CONTRACTOR agrees to furnish LFUCG with all applicable Certificates of Insurance signed by a person authorized by the insurer to bind coverage on its behalf prior to final award, and if requested, shall provide LFUCG copies of all insurance policies, including all endorsements.

### Right to Review, Audit and Inspect

CONTRACTOR understands and agrees that LFUCG may review, audit and inspect any and all of its records and operations to insure compliance with these Insurance Requirements.

# **DEFAULT**

BIDDER/CONTRACTOR understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default and that LFUCG may elect at its option any single remedy or penalty or any combination of remedies and penalties, as available, including but not limited to purchasing insurance and charging BIDDER/CONTRACTOR for any such insurance premiums purchased, or suspending or terminating the work.

# RISK MANAGEMENT PROVISIONS INSURANCE AND INDEMNIFICATION Bid #110-2013 Asphalt Overlay for Coolavin Park

# INDEMNIFICATION AND HOLD HARMLESS PROVISION

- (1) It is understood and agreed by the parties that Contractor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Contractor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "CONTRACTOR") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- (2) CONTRACTOR shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "LFUCG") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by CONTRACTOR's performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the CONTRACTOR; and (b) not caused solely by the active negligence or willful misconduct of LFUCG.
- (3) In the event LFUCG is alleged to be liable based upon the above, CONTRACTOR shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and expenses, using attorneys approved in writing by LFUCG, which approval shall not be unreasonably withheld.
- (4) These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.

### FINANCIAL RESPONSIBILITY

BIDDER/CONTRACTOR understands and agrees that it shall, prior to final acceptance of its bid and the commencement of any work, demonstrate the ability to assure compliance with the above Indemnity provisions and these other risk management provisions.

# **INSURANCE REQUIREMENTS**

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW, AAND YOU MAY NEED TO CONFER WITH YOUR INSURANCE AGENTS, BROKERS, OR CARRIERS TO DETERMINE IN ADVANCE OF SUBMISSION OF A RESPONSE THE AVAILABILITY OF THE INSURANCE COVERAGES AND ENDORSEMENTS REQUIRED HEREIN. IF YOU FAIL TO COMPLY WITH THE INSURANCE REQUIREMENTS BELOW, YOU MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

# Required Insurance Coverage

BIDDER/CONTRACTOR shall procure and maintain for the duration of this contract the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain similar insurance with limits acceptable to LFUCG in order to protect LFUCG against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONTRACTOR. The cost of such insurance shall be included in any bid:

Coverage	<u>Limits</u>
General Liability (Insurance Services Office Form CG 00 01)	\$1 million per occurrence, \$2 million aggregate or \$2 million combined single limit
Commercial Automobile Liability (Insurance Services Office Form CA 0001)	combined single, \$1 million per occurrence
Worker's Compensation	Statutory
Employer's Liability	\$500,000.00

The policies above shall contain the following conditions:

- a. All Certificates of Insurance forms used by the insurance carrier shall be properly filed and approved by the Department of Insurance for the Commonwealth of Kentucky (DOI). LFUCG shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy using the Kentucky DOI approved forms.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by LFUCG.
- c. The General Liability Policy shall include a Products and Completed Operations endorsement or Premises and Operations Liability and a Products Liability endorsement unless it is deemed not to apply by LFUCG.
- d. The General Liability Policy shall include a Pollution liability and/or Environmental Casualty endorsement unless it is deemed not to apply by LFUCG.
- e. LFUCG shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.
- f. Said coverage shall be written by insurers acceptable to LFUCG and shall be in a form acceptable to LFUCG. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

### Renewals

After insurance has been approved by LFUCG, evidence of renewal of an expiring policy must be submitted to LFUCG, and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

### Deductibles and Self-Insured Programs

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, DIVISION OF RISK MANAGEMENT, 200 EAST MAIN STREET, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE RESPONSE DATE. Self-insurance programs, deductibles, and self-insured retentions in insurance policies are subject to separate approval by Lexington-Fayette Urban County Government's Division of Risk Management, upon review of evidence of BIDDER/CONTRACTOR's financial capacity to respond to claims. Any such programs or retentions must provide LFUCG with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance coverage. If BIDDER/CONTRACTOR satisfies any portion of the insurance requirements through deductibles, self-insurance programs, or self-insured retentions, BIDDER/CONTRACTOR agrees to provide Lexington-Fayette Urban County Government, Division of Risk Management, the following data prior to the final acceptance of bid and the commencement of any work:

- a. Latest audited financial statement, including auditor's notes.
- b. Any records of any self-insured trust fund plan or policy and related accounting statements.
- Actuarial funding reports or retained losses.
- d. Risk Management Manual or a description of the self-insurance and risk management program.
- e. A claim loss run summary for the previous five (5) years.
- f. Self-Insured Associations will be considered.

# Safety and Loss Control

CONTRACTOR shall comply with all applicable federal, state, and local safety standards related to the performance of its works or services under this Agreement and take necessary action to protect the life, health and safety and property of all of its personnel on the job site, the public, and LFUCG.

### Verification of Coverage

BIDDER/CONTRACTOR agrees to furnish LFUCG with all applicable Certificates of Insurance signed by a person authorized by the insurer to bind coverage on its behalf prior to final award, and if requested, shall provide LFUCG copies of all insurance policies, including all endorsements.

### Right to Review, Audit and Inspect

CONTRACTOR understands and agrees that LFUCG may review, audit and inspect any and all of its records and operations to insure compliance with these Insurance Requirements.

### DEFAULT

BIDDER/CONTRACTOR understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default and that LFUCG may elect at its option any single remedy or penalty or any combination of remedies and penalties, as available, including but not limited to purchasing insurance and charging BIDDER/CONTRACTOR for any such insurance premiums purchased, or suspending or terminating the work.

# Lexington-Fayette Urban County Government Division of Parks & Recreation Asphalt Overlay for Coolavin Park

The Lexington-Fayette Urban County Government is accepting bids for Asphalt Overlay for Coolavin Park, for the Division of Parks & Recreation, 550 West Sixth Street, Lexington, Kentucky, 40508 as per the following specifications:

Contractor to provide and install approx. 22,800 square feet of a non-woven polypropylene paving fabric (Petromat 4599 or approved equal) over an existing asphalt surface including a new 1½" minimum asphalt overlay located in Coolavin Park, 550 West Sixth St., Lexington KY 40508.

- Prebid meeting will be held at September 5, 2013 at 9:00 am Eastern time at Coolavin Park, 550 West Sixth Street, Lexington, Kentucky, 40508.
- Deadline for questions shall be September 6, 2013 at 2:00 pm.
- For questions regarding these specifications, contact Mark Morgan, Division of Parks & Recreation at 859-288-2983. For bidding questions, contact Theresa Maynard, Buyer Senior, Division of Central Purchasing at 859-258-3320 or at <a href="mailto:theresam@lexingtonky.gov">theresam@lexingtonky.gov</a>. Deadline for question is 2:00 pm EST on June 13<sup>th</sup>, 2013.

# PRIGNG:

Item #	Description	Total Price
1.	Lump Sum bid with a minimum 1% slope	\$ 41,9000
2.	Lump Sum bid with a minimum 1.5% slope	\$ 35,800
3.	Lump Sum bid with a minimum 2% slope	\$ 35,900 °°

#### ASPHALT PAVING

Part 1—General

Part 2—Materials

Part 3—Execution

#### PART 1-GENERAL

# A. Quality Assurance

- Qualifications of Asphalt Concrete Producer: Use only materials which are furnished by a bulk asphalt concrete producer regularly engaged in production of hot-mix, hot-laid asphaltic concrete.
- 2. Qualifications of Paving Fabric Installer: Contractor must have previous & demonstrated experience with installation of paving fabric under asphalt overlays. Contractor shall provide references for locations where paving fabric has been utililized.
- 3. **Grade:** Contractor shall produce final surfaces of uniform texture conforming to required grades and cross sections.
- 4. Smoothness: Test finished surface of each asphalt course for smoothness, using a 10' straight edge applied parallel to, and at right angles to, center line of paved areas. Surfaces will not be acceptable if exceeding 1/4" deviation in 10'. The only exception will be crowned surfaces which are to be crowned smoothly.

### **B.** Job Conditions

#### 1. Weather Limitations

- a. Do not apply when existing asphalt surface is wet or contains moisture that would prevent uniform distribution and penetration.
- b. Construct asphalt surface course only when air temperature is above 50° F and rising when dry and weather is not rainy.

# 2. Grade Control

Establish and maintain the required lines and grades, including crown and cross-slope, for each course during construction operations.

### 3. Traffic Control

- a. Maintain vehicular and pedestrian traffic during paving operations, as required for other construction activities.
- b. Provide flagmen, barricades, warning signs, and otherwise fulfill traffic control requirement of the KY D.O.T. when working on or near public right-of-way.

# 4. Site Maintenance & Restoration

- a. Site must be maintained during construction in such a manner as to provide for the safety of the public and the security of the property from damage.
- b. Access routes for all construction vehicles must be approved by Owner prior to beginning construction.
- c. Any and all damage to site, including but not limited to, existing structures, grass areas, concrete or other paving, and fencing, must be restored to a condition acceptable to the owner.

### A. Paved overlay

### 1. Tack Coat Cement

Asphalt cement AC or AR penetration grades (AC-20 and AR-4000)

2. **PetroMat 4599 (or approved equal)**, nonwoven polypropylene geotextile paving fabric to be installed per manufacturer's instructions.

# 3. Asphaltic Concrete

1 1/2" minimum surface course, Class I

### PART 3—EXECUTION

# A. Preparing the Mixture

1. Comply with locally acceptable conditions for storage, control, and mixing, and for plant equipment and operation.

### 2. Stockpiles

- a. Keep each component of the various sized combined aggregates in separate stockpiles.
- b. Maintain stockpiles so that separate aggregate sizes will not be intermixed.

# 3. Heating

- a. Heat the asphalt cement at the mixing plant to viscosity at which it can be uniformly distributed throughout mixture.
- b. Use lowest possible temperature to suit temperature-viscosity characteristics of asphalt.
- c. Do not exceed 350° F. (176.6° C.)

# 4. Aggregate

- a. Heat-dry aggregates to reduce moisture content to not more than 1.0%.
- Deliver dry aggregate to mixer at recommended temperature to suit penetration grade and viscosity characteristics of asphalt cement, ambient temperature, and workability of mixture.
- c. Accurately weigh or measure dry aggregates and weigh or meter asphalt cement to comply with job-mix formula requirements.
- 5. Mix aggregate and asphalt cement to achieve 90-95% of coated particles for base mixtures and 85-90% of coated particles for surface mixtures.

### 6. Transporting

- a. Transport asphalt concrete mixtures from mixing site in trucks having tight, clean compartments.
- b. Coat hauling compartments with a lime-water mixture to prevent asphalt concrete mixture from sticking.
- c. Elevate and drain compartment of excess solution before loading mix.
- d. Provide covers over asphalt concrete mixture when transporting to protect from weather and to prevent loss of heat.
- e. During periods of cold weather or for long-distance deliveries, provide insulation around all truck bed surfaces.

### **B.** Equipment

1. Provide size and quantity of equipment to complete the work specified within project time schedule.

### 2. Rolling Equipment

- Self-propelled, steel-wheeled and pneumatic-tired rollers that reverse direction without backlash
- b. Other type rollers may be used if acceptable to the Owner.

### 3. Hand Tools

Provide rakes, lutes, shovels, tampers, smoothing irons, pavement cutters, portable heaters, and other miscellaneous small tools to complete the work specified.

# C. Placing the Mix

- Place asphalt concrete mixture on prepared surface, spread and strike-off using paving machine.
- 2. Spread mixture at a minimum temperature of 225° F. (107.2° C.)
- 3. Inaccessible and small areas may be placed by hand.
- **4.** Place each course at thickness so that when compacted it will conform to the grade, cross-sections, finish thickness, and density indicated.

### 5. Hand Placing

- a. Spread, tamp, and finish mixture using hand tools in areas where machine spreading is not possible.
- b. Place mixture at a rate that will ensure handling and compaction before mixture becomes cooler than acceptable working temperature.

### 6. Joints

- a. Carefully make joints between old and new pavements, or between successive days' work, to ensure a continuous bond between adjoining work.
- b. Construct joints to have same texture, density, and smoothness as adjacent sections of asphalt concrete course.
- c. Clean contact surfaces free of sand, dirt, or other objectionable material and apply tack coat.
- d. Offset longitudinal joints in succeeding courses not less than 6 in.
- e. Cut back edge of previously placed course to expose an even, vertical surface for full course thickness.
- f. When the edges of longitudinal joints are irregular, honeycombed, or inadequately compacted, cut back unsatisfactory sections to expose an even, vertical surface for full course thickness.

### D. Compacting the Mix

- 1. Provide sufficient rollers to obtain the required pavement density and smooth seams. Ten ton is recommended. Poor density of seams will not be accepted.
- 2. Begin rolling operations as soon after placing as the mixture will bear weight of roller without excessive displacement.
- 3. Do not permit heavy equipment, including rollers, to stand on finished surface before it has thoroughly cooled or set.
- 4. Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.
- 5. Start rolling longitudinally at extreme lower side of sections and proceed toward center of pavement. Roll to slightly different lengths on alternate roller runs.
- 6. Do not roll centers of sections first under any circumstances.

#### 7. Breakdown Rolling

- a. Accomplish breakdown or initial rolling immediately following rolling of transverse and longitudinal joints and outside edge.
- b. Operate rollers as close as possible to paver without causing pavement displacement.
- c. Check crown, grade, and smoothness after breakdown rolling.

d. Repair displaced areas by loosening at once with lutes or rakes and filling, if required, with hot loose material before continuing rolling.

#### 8. Second Rolling

- a. Follow breakdown rolling as soon as possible, while mixture is hot and in condition for compaction.
- b. Continue second rolling until mixture has been thoroughly compacted.

### 9. Finish Rolling

- a. Perform finish rolling while mixture is still warm enough for removal of roller marks.
- b. Continue rolling until roller marks are eliminated and course has attained specified density.

#### 10. Patching

- a. Remove and replace defective areas.
- b. Cut-out and fill with fresh, hot asphalt concrete.
- c. Compact by rolling to specified surface density and smoothness.
- d. Remove deficient areas for full depth of course.
- e. Cut sides perpendicular and parallel to direction of traffic with edges vertical.
- f. Apply tack coat to exposed surfaces before placing new asphalt concrete mixture.

#### E. Cleaning and Protection

#### 1. Cleaning

After completion of paving operations, clean surfaces of excess spilled asphalt materials to the satisfaction of the owner.

#### 2. Protection

a. Provide barricades and warning devices as required to protect pavement and the general public.

NOTE: All equals to be submitted to the Park Designer 48 hours prior to the bid opening.

**END OF SECTION** 

# PRODUCT DATA SHEET

PETROMAT® 4599

PETROMAT 4599 is a nonwoven polypropylene geotextile produced by Propex, and will meet the following Minimum Average Roll Values (MARV) when tested in accordance with the methods listed below. PETROMAT 4599 is used as a moisture barrier and stress absorbing interlayer beneath asphalt overlay or a chip seal.

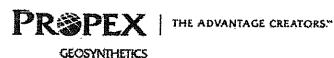
PETROMAT 4599 conforms to the property values listed below<sup>1</sup>. Propex performs internal Manufacturing Quality Control (MQC) tests that have been accredited by the Geosynthetic Accreditation Institute -Laboratory Accreditation Program (GAI-LAP).

		AMA	RV <sup>2</sup>
PROPERTY	TEST METHOD	ENGLISH	METRIC
Physical			
Mass/Unit Area	ASTM 0-5261	3.6 oz/yd21	122 g/m²
Mechanical			
Grab Tensile Strength	ASTM D-4632	90 lbs	400 N
Grab Elongation	ASIM 0-4632	50%	50%
Mullen Burst	ASTM 0-3786	180 ns	1240 kPa
Asphalt Retention	ASTM D-6140	0.20 gal/yd2	0.90 i/m²
Endurance			
UV Resistance (% retained @150 hrs)	ASTM D-4355	70%	70%

#### NOTES:

The properly values listed above are effective 08/2006 and are subject to change values indice.

Values reported in weaver orindipal direction. Minimum average roll values (MARV) are calculated as the typical minus two standard deviations. Statistically, it yields a 97.7% degree of confidence that any samples taken from quality assurance testing wit exceed the value reported.



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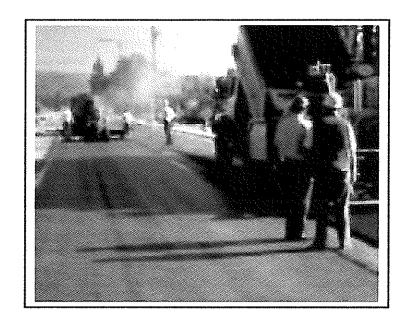
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# INSTALLATION GUIDELINES

PETROMAT PAVING FABRIC



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#### PART 1 - WHAT PETROMAT IS AND WHAT IT DOES









Petromat<sup>®</sup> is a nonwoven polypropylene fabric. When used in combination with an asphalt tack coat, the Petromat System forms an asphalt membrane interlayer within the pavement section. This layer acts as a barrier to surface water infiltration and limits softening of the subgrade and freezethaw damage, which could otherwise occur. The Petromat membrane interlayer also absorbs stresses, improving resistance to pavement fatigue and reflective cracking. These combined Petromat functions have been widely shown to extend the life of asphalt cement concrete overlays and chip seal surface treatments. Petromat also promotes longer pavement life in new asphalt cement concrete pavements.

The Petromat System was first introduced in 1966. Since that time, hundreds of millions of square yards of Petromat have been installed around the world. Over 100 million square yards of paving fabric are installed annually on thousands of jobs in the United States.

The key to the performance of the Petromat System is proper installation. This installation guide provides important information to help you install the Petromat System properly and safely. Because no guide can cover every installation challenge, an experienced representative is available through your Propex distributor to help with your special conditions.

#### INSTALLATION CHECKLIST FOR HOT MIX ASPHALT CONCRETE OVERLAYS

#### SURFACE PREPARATION

Clean surface free of dirt, water and debris (page 8).

Fill cracks greater than 1/8" (page 9).

Correct areas of subgrade failure (pages 8, 9, 11).

Portland cement concrete pavements require special care (page 10).

#### TACK COAT APPLICATION

Uncut paving grade asphalt is preferred (page 5).

Verify application rate between 0.20 gallons/square yard and

0.30 gallons/square yard (page 11).

Check function of distributor truck (pages 6, 7, 12).

Apply tack coat 2" to 3" beyond area of Petromat® placement (page 11).

Do not allow traffic on tack coat (page 12).

Special care is needed for emulsified asphalt tack coat (pages 5, 20).

#### PETROMAT® PLACEMENT

Protect paving fabric from elements until ready to use (page 4).

Install smooth side up, fuzzy side down (pages 13, 14).

Verify even roll brake tension (page 14).

Avoid sharp turns (pages 14, 17).

Overlap joints 1" to 3" (page 14).

Verify tack coat or emulsion is placed between all overlaps (page 14).

Do not place more than can be paved in the same day (page 15).

Allow only construction traffic on paving fabric (page 5).

#### **CVERLAY PLACEMENT**

Apply a minimum of 1.5" of compacted asphalt concrete (page 15).

Maximum asphalt temperature 325° F (page 15).

#### INSTALLATION CHECKLIST FOR CHIP SEAL/ PAVING FABRIC SYSTEMS

#### SURFACE PREPARATION

Gean surface free of dirt, water and debris (pages 8, 16).

Fill cracks greater than 1/8" (pages 9, 16).

Correct areas of subgrade failure (pages 8, 16).

#### TACK COAT APPLICATION

Check function of distributor truck (pages 6, 7, 12).

Verify residual asphalt tack coat application rate between 0.20 gallons/square yard and 0.30 gallons/square yard (page 16).

Apply tack coat 2" to 3" wider than Petromat® (page 11).

#### PETROMAT® PLACEMENT

Protect paving fabric from elements until ready to use (page 4).

Install smooth side up, fuzzy side down (page 17).

Verify even roll brake tension (page 17).

Avoid sharp turns (pages 14, 15, 17).

Overlap joints 1" to 3" (page 17).

Verify tack coat or emulsion is placed between all overlaps (page 17).

Do not place more than can be paved in the same day (page 15).

Allow only construction traffic on paving fabric (page 5).

#### SANDING AND ROLLING

Broadcast dry sand, 4 to 6 pounds per square yard (page 17).

Roll with rubber-tire roller until the fabric is saturated with tack coat (page 17).

#### PLACEMENT OF CHIP SEAL

Remove excess sand (page 17).

Visually inspect fabric bond at all overlaps (page 17).

Apply chip seal overspray. Increase application rate where paving fabric is dry (page 17).

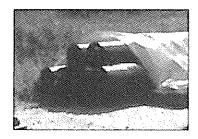
Place chips and roll according to local specifications (page 17).

#### PART II - MATERIALS AND EQUIPMENT FOR INSTALLATION

#### A PETROMAT®

#### Material

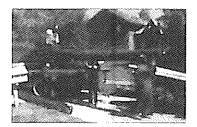
The principal component of the Petromat System is the nonwoven paving fabric designed specifically for use in pavement rehabilitation projects. One side of the Petromat fabric is heat-set, or fused, to create a smooth surface. This heat-set side reduces bleed-through of the asphalt tack coat and also helps prevent fabric pick-up by trucks during hot weather installation. Both of these conditions cause problems



with paving fabrics that are "fuzzy" on both sides. Petromat has a tight, needle-punched, nonwoven structure that absorbs and holds the asphalt tack coat to provide a durable, stable waterproofing membrane. Fabrics with looser Petromat rolls come in widths to match most roadway requirements. A sample specification for paving fabric is included in the Appendix to this installation guide.

#### Storage and Handling

Use care in handling and storing Petromat rolls to limit potential damage to the fabric. Petromat comes from the factory in a black plastic wrapper to protect the fabric from moisture and exposure to sunlight. The wrapper should be left intact around the roll for continued protection until the material is to be placed. Avoid getting moisture in the fabric as this can reduce bonding of the fabric to the pavement. Do not store Petromat rolls on the ground where rain or other runoff can get into the fabric.



Prolonged exposure to sunlight can cause degradation of paving fabric. We recommend protecting the fabric from sunlight and limiting exposure to less than two weeks. Petromat comes wound on a cardboard tube or core. Take care to avoid breaking this core. To protect the core during unloading, a pipe slightly smaller in diameter and length than the core can be inserted inside the roll. Do not drag or push the material off the truck onto the end of the roll. A pipe can also be inserted during installation of the paving fabric to prevent breaking the core of the roll. If the core breaks accidentally, the pipe will stiffen the core enough to place the fabric.

#### Temporary Traffic

Construction vehicle traffic will not damage the Petromat<sup>®</sup> fabric. However, truck and equipment drivers should maintain slow speeds while driving on the fabric. Care should be taken not to make any sudden starts, stops or turns.

Freshly installed paving fabric may have less skid resistance than dry pavement, and moisture can further reduce the skid resistance. Traffic should not be permitted on the paving fabric due to safety considerations. If it is necessary to allow traffic on the fabric before the overlay is placed, the surface should be sanded. The paving fabric surface is slippery when wet. All safety precautions, including but not limited to warning signs and speed reductions, should be taken to limit the possibility of a skidding hazard.

#### B. TACK COAT MATERIALS

The Petromat System consists of Petromat paving fabric combined with an asphalt cement tack coat. Each element depends on the other for optimum performance. The Petromat fabric provides durability to the tack coat, such that it performs its waterproofing function even when deformed.

The tack coat is a hot liquid asphalt seal applied to the pavement surface to saturate the paving fabric and bond it to the pavement. The quality of the asphalt cement tack coat is one of the most important factors in successful installation of the Petromat System. Poor placement technique or use of an inappropriate asphalt can lead to slipping of the pavement overlay or unsatisfactory waterproofing performance. Uncut paving grade asphalt cements (AC, AR or penetration grades) are preferred for use as the tack coat material. The most commonly used are AC-20 and AR-4000. The actual grade of asphalt cement will depend on the geographic area and the season.

Asphalt emulsions (RS or CRS grades) are not recommended, but can be used if necessary. If an emulsion must be used, it is important that a sufficient amount be applied such that the residual asphalt will provide the necessary coverage. Also allow sufficient time for the emulsion to cure before laying the Petromat fabric. More information regarding use of emulsified asphalts is provided in Part V of this installation guide.

Cutback asphalts (RC, MC and SC grades) or emulsions containing oil distillates should not be used for the tack coat. These materials contain solvents that can lead to instability of the overlay and are therefore unsuitable for use with Petromat fabric.

#### C. DISTRIBUTOR TRUCK

Uniform application of the tack coat is vital to ensure that the Petromat<sup>®</sup> fabric is saturated with asphalt and can provide its full waterproofing benefit. A distributor truck is preferred to obtain the most uniform tack coat application rate possible. The condition of the distributor truck should not be overlooked. Prior to beginning the job, check the spray nozzles on the truck to verify that a uniform spray is delivered.

The tack coat should not be applied with heavy spots, streaks or gaps. The height of the spray bar and spray nozzles can be adjusted to attain the correct spray width and overlap. (See Figure 1) If there is not room on the site to move a distributor truck, hand spray or use a squeegee to place the tack coat. If hand spraying or squeegee placement is used, pay careful attention to maintaining the proper amount and uniform tack coat application.

It is very important that the tack coat application rate be verified. The actual amount of tack coat on the pavement surface should be measured. This can be calculated based on the change in weight of the distributor truck, change in level gauge, on-board computer or other reliable metering system. Before relying on on-board metering systems, their sensitivity to the truck speed should be checked.

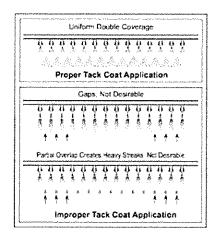
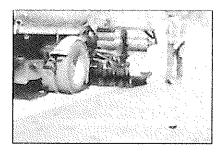


Figure 1: Distributor truck sprays.



#### D. INSTALLATION EQUIPMENT

Experienced Petromat installers have a specially equipped tractor or distributor truck designed to place the paving fabric. This equipment has attachments to lay down and broom in the paving fabric and apply uniform tension as the laydown operation proceeds.

Like any piece of construction equipment, the laydown equipment should be in good condition. The equipment should have a roll brake at each end of the fabric boom to prevent uncontrolled unrolling of the paving fabric. The brake tension should be adjusted evenly to limit wrinkling of the fabric. The laydown equipment will often have brooms attached to smooth out the fabric as it is laid. The brooms should be in good condition. The laydown equipment may also have a tension bar to apply the paving fabric smoothly and keep wind from rolling up the edges of the fabric as it is laid. The tension bar can often be adjusted as needed to smooth out the paving fabric. Best results may be obtained if this bar is bowed out. (See Figure 2) If necessary, Petromat fabric can be installed by hand. In this case, insert a pipe through the core of the

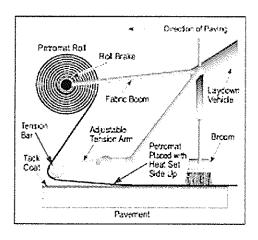


Figure 2: Components of laydown equipment.

roll and use hand brakes at each end to apply tension to the fabric during the placement procedure.

#### E MISCELLANEOUS EQUIPMENT

The following miscellaneous equipment may be useful during the Petromat fabric installation:

- Scissors, utility knife or other fabric-cutting device.
- Stiff bristle push brooms.
- Length of standard pipe, slightly shorter and smaller in diameter than the roll core, to insert inside the core when handling the fabric.
- Bucket and squeegee or small hand wand to apply asphalt on fabric joints and in areas not reached with the distributor truck.
- Rubber-tire roller to smooth fabric into the tack coat for chip seals, or to correct blisters or other loss of bond between the fabric and underlying pavement.
- Washed concrete sand (as prescribed).

#### PART III - INSTALLATION FOR HOT MIX ASPHALT CONCRETE OVERLAYS

#### A APPLICATIONS

The most common use of the Petromat® System is as an interlayer for asphalt concrete hot mix overlays on existing asphalt pavements and on Portland cement concrete pavements. Petromat can be installed with new asphalt concrete pavements following similar procedures. This section presents detailed guidance for installation of the Petromat System in these applications.

## B. PREPARATION OF ASPHALT CEMENT CONCRETE PAVEMENT SURFACES

Surface Preparation

The first step in the installation of the Petromat System on existing asphalt concrete pavements is the preparation of the pavement to receive the tack coat. Before beginning the project, determine what pavement surface preparation will be required. Give careful attention to areas that show signs of structural or subgrade distress, such as alligator cracking or pavement deformation. In these areas, the engineer should specify procedures for removing or stabilizing the questionable pavement area.

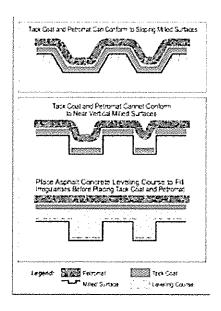


Figure 3: Preparation of milled or vertical surfaces.

It is important that the surface on which the Petromat System is placed is dry and free of dirt. Sweep off accumulations of dust, debris, water, oil and other foreign matter. Power brooms may be helpful where large areas are to be resurfaced.

Sharp changes in the pavement surface should either be ground down or smoothed out with an asphalt concrete leveling course. The guiding principle is that the tack coat should be able to completely cover the pavement surface and the Petromat fabric conform to the surface.

Where grooves in milled pavements result in vertical surfaces, a leveling course will be required (Figure 3). When paving over a shoulder or other sharp edge, the surface should be ground down or a leveling course of asphalt mix used to smooth it out. Use a fine mix for the leveling course so that the tack coat can not sink into the pores.

#### CRACK TREATMENT

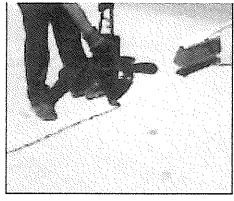
Cracks less than 1/8" wide do not require any special attention before application of the tack coat. Cracks from 1/8" to 3/8" should be filled with a liquid crack sealant so that the tack coat cannot seep down into the crack. Fill cracks larger than 3/8" with a more stable crack filler, such as hot or cold asphalt mix, emulsion slurry, or commercially available crack filler.

If the crack filler contains an emulsified asphalt or cutback asphalt, allow it to cure completely before placing the tack coat and Petromat® fabric. Otherwise, the paving fabric will form a membrane that can trap volatiles or moisture, leading to separation of the paving fabric from the pavement surface.

Fill cracks flush with or slightly below the existing pavement surface. If cracks are overfilled, such that the filler mounds up above the surface of the pavement, a noticeable bump in the pavement can result. This can lead to shoving of the overlay or bleeding of excess asphalt. (See Figure 4)

## C. PREPARATION OF PORTLAND CEMENT CONCRETE PAVEMENT SURFACES

Inadequate pavement stability is one of the leading causes of early cracking of overlays with and without paving fabric. For the best performance of the overlay, there should be no differential movement at joints in the existing concrete pavement. Differential movement will



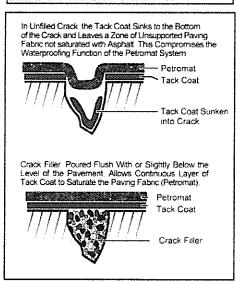


Figure 4: Crack treatment.

result in early reflective cracking. It may not be possible to stabilize the joints sufficiently to obtain the full benefit from the Petromat System. In these cases, we recommend Propex's Petrotac® pavement repair composite membrane, which tolerate slightly more movement.

There are three approaches that may be used in applying the Petromat System over existing Portland cement concrete pavements. The approach depends on the condition of the existing pavement and the anticipated traffic volume. For best results, an asphalt concrete leveling course can be used over the Portland cement concrete pavement.

#### LIGHT TRAFFIC. STABLE PAVEMENT

In low-traffic volume areas, it may be possible to place the Petromat® System directly over the existing Portland cement concrete pavement. For this approach, the traffic volume should be less than about 5,000 vehicles per day with a low percentage of buses and other heavy vehicles. For good performance of the overlay, there should be no differential movement at cracks and joints. Clean the surface and fill cracks as described for asphalt cement concrete pavements.

Sharp changes in the pavement surface should be given special attention, as they may indicate an unstable concrete slab. Unstable areas must be stabilized before proceeding. Stable areas with sharp changes in grade should either be ground down or smoothed out with a leveling course of asphalt mix.

#### HEAVY TRAFFIC, STABLE PAVEMENT

Where traffic levels are relatively heavy but the concrete pavement is stable, a leveling course of asphalt concrete should be placed before the Petromat System is installed. In this approach, there should be no differential movement at joints and cracks in the Portland cement concrete.

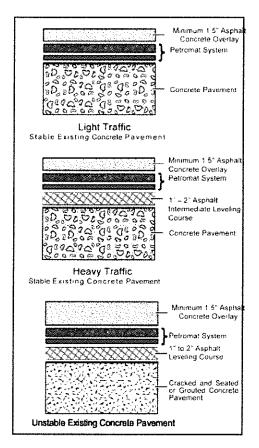


Figure 5: Portland Cement concrete pavement treatments.

This leveling course should be 1" to 2" thick. The asphalt concrete mix should leave a relatively smooth surface after compaction. Do not use an open, coarse mix, because this will allow the tack coat to seep down into the pores, leaving inadequate tack coat to saturate the paving fabric. (See Figure 5)

#### UNSTABLE PAVEMENT

Crack and seat or grout rehabilitation techniques should be used where the existing Portland cement concrete pavement experiences differential movement. In the crack and seat approach, the existing pavement is typically broken into sections about 3' to 6' square. The broken surface is then rolled in place with a heavy roller to provide a stable surface.

After stabilizing the concrete, an asphalt hot mix leveling course is placed. The leveling course should be 1" to 2" thick. The leveling course asphalt mix should not be so coarse and open as to allow the tack coat to seep into the pore spaces. The Petromat System and overlay may then be installed.

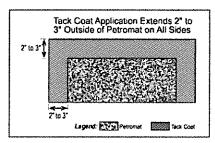
#### D. NEW PAVEMENTS

Petromat® fabric can be used with new asphalt concrete pavement construction to limit water infiltration and prolong pavement life. The paving fabric should be placed in the pavement section about one-third to one-half of the way up from the bottom. There should be at least 1.5" of compacted asphalt over the fabric. The asphalt concrete on which the Petromat fabric is placed should be relatively densely graded to limit loss of tack coat.

#### E. TACK COAT PLACEMENT TACK COAT AMOUNT

It is critical that the tack coat be applied correctly. Excessive or insufficient tack coat can lead to shoving or delamination of the overlay. The leading cause of poor performance of overlays with paving fabric is placement of an insufficient amount of tack coat.

The tack coat should extend beyond the paving fabric by 2" to 3" on all sides. Tack coat should also be applied between all fabric overlaps. A tack coat application rate of 0.25 gallons per square yard is required with Petromat fabric under most conditions when using an uncut paving grade



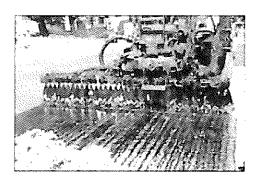
TACK COAT APPLICATION

asphalt tack coat. A minimum application rate of 0.22 gallons per square yard is required to saturate the Petromat fabric and bond it to the pavement surfaces. It is critical not to apply excess tack coat in locations where vehicles do a lot of hard starting, stopping and turning or on steep grades (greater than 8%). These areas include intersections, bus stops and sharp turns. In these locations, the maximum tack coat application rate should be limited to 0.20 to 0.25 gallons per square yard. Applying less tack coat than the above recommended amounts can result in construction problems or long-term pavement performance problems.

TABLE 1: GALLONS OF UNOUT PAYING GRADE ASPHALT TACK COAT PER MILE OF ROAD

Width of Application	Tack Coat Application Rate				
(Feet)	0.20 gallons/ Square Yard	0.25 gallons/ Square Yard	0.30 gallons/ Square Yard		
8	940	1170	1410		
10	1170	1470	1760		
12	1410	1770	2110		
14	1640	2050	2460		
16	1880	2350	2820		
20	2350	2930	3520		
24	2820	3520	4220		
30	3520	4400	5280		

Also, the application rate should not exceed 0.30 gallons per square yard, as this may lead to overlay rutting and shoving. The optimum application rate depends on a number of factors including: pavement roughness, pavement porosity, and whether or not a leveling course is used. In general, more tack coat is needed for rough and porous pavements. Less tack coat is typically needed when placing Petromat over a fine mix asphalt leveling course. Experienced Petromat<sup>®</sup> fabric installers are able to adjust the tack coat application rate within the range of 0.20 to 0.30 gallons per square yard to achieve optimum pavement performance and ease of construction. Table 1 gives the



Close-up of unacceptable streaks of asphalt tack coat (refer to Part II C of this brochure).

tack coat volume for one mile of road of varying widths, assuming the use of uncut paving grade asphalt tack coat.

The tack coat volume can be monitored using the mechanical or visual gauging system on the distributor equipment. The truck weight tickets can be used to verify the application rate. Before applying the tack coat, it is important to verify proper operation of the distributor truck. The distributor truck should apply an even and uniform spray of tack. An accumulation of tack may build up where the distributor truck starts and stops. Accumulations of excessive tack coat can lead to overlay rutting and shoving. Consequently, starting and stopping should be kept to a minimum and squeegees should be used to spread any accumulated tack. Construction traffic should be kept off the tack coat before the Petromat fabric is placed. Traffic can pick up the tack coat, leaving insufficient tack coat to saturate the paving fabric and bond it to the pavement and the new overlay.

#### TACK COAT TEMPERATURE

The temperature of the asphalt tack coat should be high enough to allow uniform tack coat application. The allowable temperature range for uncut paving grade asphalt cement tack coat material is 290° F to 325° F. These temperatures correlate with widely accepted temperatures for asphalt placement.

#### AIR TEMPERATURE

Most state and local agencies have specifications for the minimum temperature for placement of asphalt tack coats and hot mixes, and the applicable specifications should be followed. In the absence of such specifications, the following guidelines are offered. For uncut paving grade asphalt cement tack coat materials, the air temperature should be sufficient to allow adequate "tack" or stickiness to hold the fabric in place. This temperature will vary for different asphalt types. As a rule-of-thumb, the temperature should be 50° F and rising.

#### F. PETROMAT® FABRIC PLACEMENT

#### **TEMPERATURE**

The surface temperature of the tack coat at the time that the Petromat fabric is placed should not exceed 325° F. The temperature of the tack coat drops very quickly after it contacts the pavement surface, so this is generally not a consideration. When uncut paving grade asphalt cement tack coat is used, the fabric can usually be placed closely behind the distributor truck. Place the paving fabric while the tack coat is still sticky enough to hold the fabric in place. Paving fabric can be placed after the tack coat has lost its stickiness, but pneumatic rolling may be necessary to keep the material in place. The heat of the overlay will then soften and draw the asphalt tack up into the paving fabric. In very hot weather, (in excess of 100° F, 38° C) it helps to let the asphalt tack coat firm up before placing the fabric, while in cool weather, the fabric should be placed into the tack coat immediately.

#### PAVING FABRIC PLACEMENT - MECHANICAL

Petromat fabri has a fuzzy side and a relatively smooth, heat-set side. Install the fabric with the fuzzy side down into the tack coat. With the smooth side up, fabric pick-up by construction equipment and bleed-through of the tack coat will be minimized. For ease of installation, the fabric is rolled at the factory with the fuzzy side "in" so that it can easily be installed correctly when using lay- down equipment. A pipe slightly smaller in diameter and length than the roll core can be inserted into the roll. This adds strength and helps the core resist buckling, especially if the core was accidentally broken during handling.

Initially, hold the Petromat<sup>®</sup> fabric in place at the beginning point and unroll about 20' to 50' of fabric into the tack coat. The material should be lined up with the tack coat and installed as smoothly as possible.

During placement, turns of the laydown equipment should be made gradually to limit wrinkling of the fabric. Avoid moving equipment on the paving fabric before the overlay is placed. This can cause wrinkles in the paving fabric and in extreme instances can rip the fabric. The fabric roll brakes should be adjusted evenly. Poorly adjusted brakes result in uneven tension in the paving fabric, which can cause wrinkles during placement. Petromat fabric can be placed on slopes of up to about 8% On steeper slopes, it may be difficult to compact the asphalt overlay without slippage. Take extra precaution when maneuvering installation equipment on slopes.

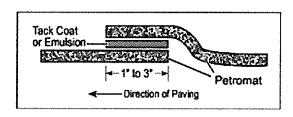
#### PETROMAT PAYING FABRIC PLACEMENT - MANUAL

When installing the paving fabric by hand, use hand brakes to maintain tension on the fabric and minimize wrinkling. Do not rest the Petromat roll on the pavement and roll it out. This will not provide adequate tension on the fabric and will also incorrectly place the smooth, heat-set side down into the tack coat.

The fabric should be broomed in, working from the center out, to smooth the fabric into the tack coat. When placing the paving fabric by hand, the tack coat may have cooled such that the fabric does not adhere well. Under these circumstances, it may be helpful to roll the installed paving fabric using a rubber-tire roller to promote adhesion to the pavement.

#### JOINTS AND OVERLAPS

Tack coat should be applied between all overlaps. At joints, overlap the fabric by 1" to 3". End joints should be made to overlap or "shingle" in the direction that the pavement overlay will be placed. Adjacent rolls should also overlap 1" to 3". Overlaps of adjacent rolls may be greater than 3" in some cases, depending on the width of the road. However, adjacent rolls should not have overlaps wider than 6". Do not overlay on joints or



Joints and overlaps.

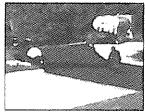
overlaps that do not have tack coat between the overlapping fabrics. Care should be taken to limit excessive tack or emulsion beyond the overlap.

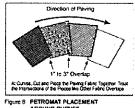
#### DRAINS, EXPANSION JOINTS AND OTHER PENETRATIONS

At drains, expansion joints or other penetrations, Petromat<sup>®</sup> paving fabric can be placed over the opening. After the fabric is in place, cut out the excess fabric around the inside of the opening.

#### **CURVES**

Sharp curves may be encountered that will not allow mechanical paving fabric placement without wrinkles. In this condition, it may be desirable to cut and piece the paving fabric around the curve. The joints in this procedure should be treated as with other overlaps mentioned previously.





Placement around curves.

#### G. OVERLAY PLACEMENT

The asphalt concrete overlay can be placed immediately after the Petromat fabric has been installed. No cure time is necessary when using an uncut paving grade asphalt tack coat, and there is no need for additional tack coat application before paving. Installation of the Petromat System by an experienced crew will easily stay well ahead of paving operations. However, no more paving fabric should be placed than will be covered in the same day by the paving crew.

A maximum temperature for the hot mix will usually be dictated by the governing state or local agency. In the absence of such specification, the maximum temperature allowed should not exceed 325° F at the time of placement.

The overlay should be designed based on the condition of the pavement and the anticipated traffic. A minimum compacted thickness of 1.5" is required. Thinner overlays will not generate enough heat to draw the asphalt tack coat up into the paving fabric and produce a waterproof membrane. If the overlay thickness is tapered toward the edges, Petromat fabric should not be placed where the thickness tapers to less than 1.5", or the edge should be milled to allow a minimum 1.5" overlay thickness to the edge.

#### PART IV - INSTALLATION OF CHIP SEAL/ PAVING FABRIC SYSTEMS

#### A APPLICATIONS

Petromat® fabric can be used with chip seals as a cost-effective maintenance solution for low volume pavements. A chip seal/ paving fabric system consists of aggregate chips embedded in an asphalt binder and placed over an asphalt-saturated paving fabric. The Petromat paving fabric provides an excellent seat for the chips and forms a continuous, long-lasting, waterproofing membrane. The primary difference between this application and use with hot mix asphalt concrete overlays is that the chip seal procedure does not generate enough heat to draw the tack coat up into the paving fabric. Additional measures, such as rolling the fabric and placing a second tack coat, are used to fully saturate the paving fabric.

#### B. SURFACE PREPARATION

Surface preparation for chip seal overlays follows the procedures given in Part II B for hot mix overlays. The surface on which the Petromat fabric will be placed should be free of dirt, debris, water, oil and loose stone. A power broom may be helpful in preparing the roadway surface, areas showing signs of subgrade distress should be repaired. Cracks greater than 1/8" should be sealed with a liquid crack sealant. Where cracks greater than 3/8" are present, a more stable crack filler should be used such as hot or cold asphalt mix or commercial crack filler.

#### C. TACK COAT PLACEMENT

The tack coat for this application can be either an uncut paving grade asphalt cement or an emulsified asphalt. Again, a pure uncut asphalt cement is recommended instead of the emulsion. The tack coat should provide enough asphalt to saturate the paving fabric and bind the Petromat fabric to both the existing pavement surface and new surface treatment.

Use of an uncut paving grade asphalt tack coat will follow the same guidelines given in Part II E. Under normal conditions the tack coat application rate for the Petromat fabric should be 0.25 gallons per square yard of uncut paving grade asphalt cement. A greater amount of tack coat is needed for rough and porous surfaces. Less tack coat is typically needed when placing the fabric over a smooth surface. An experienced Petromat installer can evaluate project requirements and adjust the application rate as necessary. The tack coat application rate should be within the range of 0.20 to 0.30 gallons per square yard of residual asphalt.

When an emulsion is used, the application rate must be increased to allow for complete evaporation of water and additives in the emulsified asphalt. The residual asphalt coverage, after curing, should be 0.25 gallons per square yard. Emulsified asphalt curing time can become critical. The length of time required for all the water and additives to evaporate is highly dependent on the type of emulsion and weather conditions.

Additional details for use of emulsified asphalts are given in Part V.

Uncut paving grade asphalt tack coats should be placed at temperatures of 290° F to 325° F. Emulsified asphalt tack coats should be applied at temperatures below 160° F.

#### D. PETROMAT® PAMING FABRIC PLACEMENT

The paving fabric should be placed into the tack coat smoothly and without wrinkles. Place the fuzzy side of the Petromat fabric down. With the smooth side up, fabric pick-up by construction equipment is limited. Fabric roll brakes should be adjusted to provide even tension. Poorly adjusted brakes can cause wrinkles in the fabric. Turns of the installation equipment should be made gradually to avoid wrinkling.

Overlaps of the Petromat fabric should be kept to a minimum when used with chip seal pavements. Tack coat should be applied between all overlaps. At joints, overlap the fabric by 1" to 3". Adjacent rolls should also overlap 1" to 3". Overlaps of adjacent rolls may be greater than 3" in some cases, depending on the width of the road. However, adjacent rolls should never have overlaps wider than 6". Do not apply chip seal treatment on joints or overlaps that do not have tack coat between the overlapping fabrics. Care should be taken not to spray excessive tack or emulsion beyond the overlap.

#### E. SANDING AND ROLLING

Chip seal pavements require sanding and rolling once the Petromat fabric has been placed. A uniform layer of sand is applied to the fabric at the rate of 4 to 6 pounds per square yard. The sanded fabric is thoroughly rolled using a rubber-tire roller. This step is important to ensure a strong bond between the paving fabric and the pavement and at overlap joints. During the rolling operation, the tack coat should be observed to come up from beneath and saturate the paving fabric, changing the fabric color from gray to a dark brown or black.

#### F. CHIP SEAL PLACEMENT

The next step is to sweep off any accumulations of sand or debris. Prior to chip seal application, inspect the fabric to verify that it is adhered to the pavement and that overlaps are tightly bonded. Apply additional tack to any loose overlaps and reroll as necessary to saturate overlap and achieve a good bond. The chip seal is then placed following procedures dictated by state or local agencies. This usually involves a tack of emulsified asphalt into which chip stone is immediately set and secured by rolling. In areas where the paving fabric appears to be dry or not fully saturated, the chip seal tack coat application should be increased by about 0.1 gallons per square yard. Do not use cutback asphalts for the overspray. Finally, roll the surface to stabilize the chips and embed them in the tack coat. A rubber-tire roller is often used to minimize breaking of the chips.

#### PART V - SPECIAL CONSIDERATIONS

#### A EMULSIFIED ASPHALT TACK COATS

Emulsified Asphalts Uncut paving grade asphalt cement is the preferred tack coat for use in the Petromat<sup>®</sup> System. Emulsified asphalt tack coats can be used with the Petromat System; however, there are several construction-related concerns that make emulsions difficult to use. These include the relatively long curing time required for emulsions and the higher volume of tack coat that must be applied.

Emulsified asphalts are a blend of asphalt and water. The asphalt content may be only 50% to 70% of the total emulsion. Emulsions must be applied at a high rate to ensure the required residual asphalt coverage after the water has evaporated. For example:

- 1. Emulsion has 60% by volume asphalt content.
- 2. A tack coat with a residual asphalt coverage of 0.25 gallons per square yard is required.
- 3. The required emulsion application rate =  $0.25 \div 0.6 = 0.42$  gallons per square yard. Emulsions are relatively free-flowing at these high application rates. They will tend to run off comparatively gentle slopes or uneven pavements, leaving no asphalt on the high points and an excess of asphalt in low spots.

The curing time for emulsified asphalt tack coats can become critical. Sufficient time must be allowed for all water and any additives to evaporate. The length of time necessary is dependent on the type of emulsion, whether rapid setting (RS, CRS), medium setting (MS, CMS) or slow setting (SS, CSS). Weather conditions also affect the curing time significantly. The medium- and slow-setting emulsions (MS, CMS, SS and CSS) require much longer curing times, which makes them impractical for use with paving fabrics. Table 2 provides cure time guidelines for rapid-setting emulsions.

TABLE 2: CURING TIME FOR RAPID-SETTING EMULSIFIED ASPHALTS (RS & CRS)

Air Temperature		Humidity		a a a a a a a a a a a a a a a a a a a
iomporataro	Dry	Moderate	Humid	
60° F	2 hrs.	3 hrs.	4 hrs.	
75° F	1 hrs.	2 hrs.	3 hrs.	
90° F	0.5 hr.	1 hr.	2 hrs.	

When cured, the surface will be tacky, and the color will have changed from an initial brown hue to glossy black. In windy weather, the surface of an emulsified asphalt tack coat may cure without the full thickness curing. Before installing the fabric, check carefully that the emulsion has cured thoroughly and not just skinned over.

When emulsified asphalt tack coats are used, the air temperature should be 60° F and rising. Cool temperatures lengthen the time that it takes for the tack coat to cure. The temperature of the asphalt emulsion itself should not exceed 160° F.

#### B. WET CONDITIONS

There is always a risk of poor bonding within the pavement system if moisture is present during construction. This is also true when paving fabrics are used. Therefore, Propex recommends the existing pavement surface, tack coat, and the Petromat® fabric be completely dry during construction. If the pavement surface is wet when the tack coat is placed, the tack coat may not properly bond to the existing pavement, leading to an unsatisfactory installation. We do not recommend placing the asphalt tack coat on a wet pavement surface.

If the surface of the tack coat becomes wet before the paving fabric is placed, squeegee standing water off the surface and allow the surface to dry before placing the fabric. Rolling the fabric with a rubber-tire roller may be required to improve adhesion. Petromat fabric should not be placed on wet tack coat.

Propex also recommends that the Petromat fabric be completely dry prior to placement of the overlay. However, if the fabric is slightly damp to the touch, an overlay can be placed. If free water can be forced from the paving fabric or is beaded on the surface, allow the fabric to dry before placing the overlay. A squeegee or broom can be used to force the water out of the paving fabric to help accelerate the drying process. Rain will sometimes cause a blistered appearance in the Petromat fabric surface. If this occurs, the fabric should be rolled down with a rubber-tire compactor before the overlay is placed.

#### C. RECYCLING OF PAVEMENTS CONTAINING PETROMAT PAMNG FABRIC

If pavements containing Petromat fabric are to be recycled, we recommend that the milling machine does not cut deep enough to penetrate the Petromat System, so that the waterproof, stress-relieving interlayer remains intact. If a pavement containing Petromat fabric must be recycled, field studies have shown that standard cold milling techniques can be used in the recycling operation. Satisfactory performance has been obtained at proportions of up to 70% recycled pavement (containing Petromat) to 30% virgin hot mix.

#### PART VI - TROUBLESHOOTING GUIDE

#### A WRINKLES

Wrinkles may be formed during placement of the Petromat® paving fabric. Causes include out-of adjustment roll brakes on the laydown equipment, sharp turns of the laydown equipment and maneuvering of equipment on the paving fabric. Wrinkles that result in three layers of fabric should be repaired. Generally, these wrinkles will be more than 1" high. They should be slit and laid flat in the direction of paving. Extra tack coat should be placed at the location of the overlap. Wrinkles less than 1" high are usually not a problem and can be left in place.

#### B. TRUCKS PICK UP FABRIC

In hot weather, construction traffic may pick up the paving fabric. The Petromat fabric is designed with a fuzzy (beard) side and a smooth (heat-set) side. Install the fabric with the smooth (heat-set) side up to limit the potential for trucks to pick up the fabric. If this problem does occur, broadcast sand or hot mix over the fabric. Be sure to sweep off any

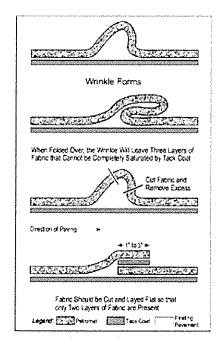


Figure 6: Wrinkle repair.

excess sand before placing the asphalt concrete overlay. The amount of tack coat should not be reduced to remedy this condition, unless it exceeds the previously prescribed rate of application. It is also possible to go to a stiffer grade of asphalt tack coat material, such as from an AR-4000 to an AR-8000, to reduce this problem. This minimizes asphalt seeping through the paving fabric and sticking to the tires of the equipment.

#### C. BLISTERS

Blisters may form under the paving fabric before overlay construction if the pavement is saturated with water. This must be corrected before the overlay is placed, or they can cause delamination of the overlay. Blisters can be treated by rolling the paving fabric with a rubber-tire roller until the fabric adheres to the pavement surface. If it is suspected that the subgrade is thoroughly saturated, it may be necessary to install drainage.

#### D. EXCESS TACK COAT AND BLEED-THROUGH

Bleed-through occurs when excess tack coat material seeps through the asphalt concrete overlay to the surface. This can happen even when relatively thick overlays are used. Bleed-through can soften the overlay mix and cause rutting and shoving of the overlay.

Bleeding can occur where the distributor truck stops and starts, leaving a thick spot in the tack coat. Improper adjustment of the spray bar can leave heavy streaks of tack coat, also leading to bleed-through. During tack coat application, check adjustment of the equipment and keep the distributor truck moving, limiting starting and stopping. Use a squeegee to spread any excess tack coat before it cools. Alternatively, blot up any heavy spots in the tack coat using dry sand. Broadcast the sand over the heavy spots and then sweep away excess.

#### E. OVERLAY DELAMINATION OR SHOMING

Historically, overlay delamination or shoving is the leading cause of the very few complaints received on the service of pavements containing Petromat<sup>®</sup> paving fabric. The main cause of overlay delamination or shoving is insufficient tack coat. If the tack coat is too light to saturate the paving fabric and adhere it to the pavement, there will be a dry layer at the fabric/ pavement interface. In extreme cases, the overlay may literally peel off the old pavement. It is critical to check and verify the uniformity and quantity of the tack coat spray from the distributor at the beginning of the job and at intervals throughout the operation. Also be sure the pavement and paving fabric are dry during construction and prior to overlay placement.

#### F. DIFFICULTY BONDING FABRIC TO PAVEMENT

Rolling with a rubber-tire roller can improve adhesion of the Petromat paving fabric to the tack coat in a number of situations. Rolling can be particularly helpful when the tack coat has cooled and in locations where the tack coat has been reduced, such as at intersections. In these and other situations, a rubber-tire roller applies a uniform pressure across the fabric to set it into the tack coat. However, rolling should not be used as a substitute for placing the amount of tack coat prescribed in this document.

#### **APPENDIX**

#### PAMNG FABRIC GUIDE SPECIFICATION\*

#### DESCRIPTION

This work shall consist of furnishing and placing an asphalt overlay geotextile (paving fabric) beneath a pavement overlay or between pavement layers to provide a water-resistant membrane and crack-retarding layer.

#### MATERIAL REQUIREMENTS

Paving Fabric: The paving fabric will be a staple fiber, needle-punched, nonwoven material consisting of at least 85 percent by weight polyolefins, polyesters or polyamides. The paving fabric shall be resistant to chemical attack, rot and mildew and shall have no tears or defects that will adversely alter its physical properties. The fabric shall be specifically designed for pavement applications and be heat-set on one side to reduce bleed-through of tack coat and to minimize fabric pick-up by construction equipment during installation. The fabric shall meet the physical requirements specified in Table 1.

Tack Coat: The tack coat used to impregnate the fabric and bond the fabric to the pavement shall be the same grade asphalt cement as used in the hot mix asphalt. A cationic or anionic emulsion may be used as approved by the engineer. The contractor shall follow the recommendations of the paving fabric manufacturer when an asphalt emulsion is used. The use of cutbacks or emulsions that contain solvents shall not be permitted.

#### CONSTRUCTION AND INSTALLATION REQUIREMENTS

Shipping and Storage: The paving fabric shall be kept dry and wrapped such that it is protected from the elements during shipping and storage. If stored outdoors, the fabric shall be elevated and protected with a waterproof cover. The paving fabric shall be labeled in accordance with ASTM D 4873-88, "Standard Guide for Identification, Storage, and Handling of Geotextiles."

Weather Limitations: The air and pavement temperatures shall be at least 50°F and rising for placement of asphalt cement and shall be at least 60°F and rising for placement of asphalt emulsion. Neither asphalt tack coat nor paving fabric shall be placed when weather conditions are not suitable, in the opinion of the Engineer.

Surface Preparation: The pavement surface shall be dry and be thoroughly cleaned of all dirt and oil to the satisfaction of the engineer. Cracks 1/8" wide or greater shall be cleaned and filled with suitable bituminous material or by a method approved by the Engineer. Crack-filling material shall be allowed to cure prior to placement of paving fabric. Potholes and other pavement distress shall be repaired. Repairs shall be performed as directed by the Engineer.

Tack Coat Application: The tack coat shall be applied using a calibrated distributor spray bar. Hand spraying, squeegee and brush application may be used in locations where the distributor truck cannot reach. Every effort shall be made to keep hand spraying to a minimum.

<sup>\*</sup> Note. This specification is for an overlay application, not for a chip seal treatment. For a chip seal specification, please contact Propex Inc.

The tack coat shall be applied uniformly to the prepared, dry pavement surface. The tack coat application rate must be sufficient to saturate the fabric and to bond the fabric to the existing pavement surface. The tack coat application rate shall be 0.22 to 0.30 gallons per square yard as required by the roadway surface and environmental conditions. When using emulsions, the application rate must be increased as directed by the engineer to offset the water content of the emulsion. Within street intersections, on steep grades or in other zones where vehicle speed changes are common, the normal application rate shall be reduced by about 20 percent as directed by the engineer, but to not less than 0.20 gallons per square yard.

The temperature of the tack coat shall be sufficiently high to permit a uniform spray pattern. For asphalt cements, the minimum temperature shall be 290° F. To avoid damage to the fabric, distributor tank temperatures shall not exceed 325° F. For asphalt emulsions, the distributor tank temperatures shall be maintained between 130° F and 160° F.

The target width of the tack coat application shall be equal to the paving fabric width plus 6". Tack coat application shall be wide enough to cover the entire width of fabric overlaps. The tack coat shall be applied only as far in advance of paving fabric installation as is appropriate to ensure a tacky surface at the time of paving fabric placement. Traffic shall not be allowed on the tack coat. Excess tack coat shall be cleaned from the pavement.

Paving Fabric Placement: The paving fabric shall be placed onto the tack coat using mechanical or manual laydown equipment capable of providing a smooth installation with a minimum amount of wrinkling or folding. The paving fabric shall be placed before the asphalt cement tack coat cools and loses its tackiness. Paving fabric shall not be installed in areas where the overlay asphalt tapers to a minimum compacted thickness of less than 1.5".

When asphalt emulsions are used, the emulsion shall be allowed to cure properly such that essentially no water moisture remains prior to placing the paving fabric. Fabric wrinkles severe enough to cause folds shall be slit and laid flat. Brooming and/ or rubber-tire rolling will be required to maximize paving fabric contact with the pavement surface. Additional hand-placed tack coat may be required at overlaps and repairs as required by the engineer.

Turning of the paver and other vehicles shall be done gradually and kept to a minimum to avoid movement and damage to the paving fabric. Abrupt starts and stops shall also be avoided. Damaged fabric shall be removed and replaced with the same type of fabric and a tack coat.

Joints and Overlaps: At joints, fabric rolls shall overlap by 1"to 3". End joints and joints from repair of wrinkles should be made to overlap or "shingle" in the direction that the pavement overlay will be placed. Overlaps of adjacent rolls may be as great as 6" to accommodate variations between the width of the roadway and the paving fabric. Excess fabric shall be cut and removed to ensure that overlaps of adjacent rolls do not exceed 6". A uniform application of tack coat shall be applied between all fabric overlaps. Any locations that do not have tack between the overlaps shall be corrected by manual placement of tack coat prior to overlay construction.

All areas with paving fabric placed will be paved the same day. No traffic except necessary construction traffic will be allowed to drive on the paving fabric.

Overlay Placement: Asphalt overlay construction shall closely follow fabric placement. All areas in which paving fabric has been placed will be paved during the same day. Excess tack coat that bleeds through the paving fabric shall be removed. Excess tack coat can be removed by broadcasting hot mix or sand on the paving fabric. Excess sand or hot mix should be removed before beginning the paving operation. In the event of rainfall on the paving fabric prior to the placement of the asphalt overlay, the paving fabric must be allowed to dry completely before asphalt is placed. Overlay asphalt thickness shall meet the requirements of the contract drawings and documents. The minimum compacted thickness of overlay asphalt shall not be less than 1.5" in areas of paving fabric installation.

#### METHOD OF MEASUREMENT

Paving Fabric: The paving fabric will be measured by the square yard. Tack Coat: Tack coat will be measured by the gallon.

#### BASIS OF PAYMENT

Paving Fabric: The accepted quantities of paving fabric will be paid for at the contract unit price per square vard in place.

Tack Coat: The accepted quantities of tack coat for the paving fabric will be paid for at the contract unit price per gallon complete in place.

TABLE 1 PHYSICAL REQUIREMENTS OF PAMING FABRICS 123 (Note to Specifier: Choose one fabric specification, delete the other)

		Petromat	4599	or	Petroma	at 4598
Properties	Test Method	American Standard	Metric Units	1	American Standard	Metric Units
Mass Per Unit Area	ASTM D 3776	na	na		4.1 oz/yd2	104 g/m2
Tensile Strength	ASTM D 4632	90 lbs.	0.400 kN		101 lb.	0.450 kN
Tensile Bongation	ASTM D 4632	50%	50%		50%	50%
Asphalt Retention	ASTM D 6140	0.20 gal/yd²	0.90 l/ m²	and the same of th	0.20 gal/yd²	0.90 l/m <sup>2</sup>
Melting Point	ASTM D 276-87	300° F	149° C	Act and Frederica	300° F	149° C
Surface Texture	VISUAL INSPECTION	Heat-Set of	n One Side	Accomply and the second and secon	Heat-Set	on One Side

1 Certification of conformance from paving fabric manufacturer may be required.

<sup>3</sup> Conformance of paving fabrics to specification property requirements shall be determined in accordance with ASTM D 4759-88. "Practice for Determining the Specification Conformance of Geosynthetics



6025 Lee Highway, Suite 425 PH: 423 899 0444 PO Box 22788 PH: 800 621 1273 Chattanooga, TN 37422 FAX: 423 899 7619

www.geotextile.com



<sup>2</sup> All numerical values represent minimum average roll values (average of test results from any sampled roll in a lot shall meet or exceed the minimum values) in weaker principal direction. Lot shall be sampled according to ASTM D 4354-89, "Practice for Sampling of Geosynthetics for Testing."



### Lexington-Fayette Urban County Government DEPARTMENT OF FINANCE & ADMINISTRATION

Jim Gray Mayor William O'Mara Commissioner

#### **ADDENDUM #1**

Bid Number: #110-2013 Date: September 10, 2013

Subject: Asphalt Overlay for Coolavin Park Address inquiries to: Theresa Maynard

(859) 258-3320

#### **TO ALL PROSPECTIVE BIDDERS:**

Please be advised of the following clarification to specifications of the above referenced bid:

- Sign in Sheet from September 5, 2103 Pre-Bid Meeting attached
- · Elevation and dimension map attached

Todd Slatin, Acting Director Division of Central Purchasing

All other terms and conditions of the Bid and specifications are unchanged. This letter should be signed, attached to and become a part of your Bid.

BID OF:	( * R Asphat	···
ADDRESS:	415 Rebmann Ln. Lex KY 40504	
SIGNATURE OF	BIDDER: Josh Colm	

### SIGN-IN SHEET

Bid #110-2013 Asphalt Overlay for Coolavin Park Thursday, September 5, 2013 9:00 am

Division	Phone #	Email Address
LFUCG Central Purchasing	258-3325	theresam@lexingtonky.gov
ATS Construction	859-585-1996	blocastey @atsconstruction.co
CFUCE Partis, Pie	288-2900	
	•	
	LFUCG Central Purchasing	