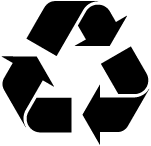
# COMMONWEALTH OF KENTUCKY



**2024 WASTE TIRE MARKET DEVELOPMENT**

**RUBBERIZED ASPHALT GRANT APPLICATION**



# PURPOSE

This grant provides financial assistance to projects that further the goals of the Kentucky Waste Tire Program by promoting development of markets for rubber-modified asphalt using waste tires generated in Kentucky



# GENERAL INFORMATION

The Cabinet is accepting grant proposals for projects that will promote and assess the benefits of using recycled Kentucky waste tires in rubber-modified asphalt for chip seal and thin asphalt overlay projects.

**The purpose of the grant is to compare (1) conventional asphalt tests versus rubberized asphalt tests, and (2) the durability over five years of the two asphalts.** The county retains its construction authority throughout the process, including conducting its own oversight using its Quality Assurance. The EEC does not conduct testing for the acceptance of the construction and the Cabinet data is for comparison purposes only. The municipality determines acceptance or rejection of the paving.

**Rubber-modified asphalt** involves amending standard asphalt with crumb rubber derived from recycled waste tires. **Chip-seal** is a pavement surface treatment that combines one or more layers of liquid asphalt with one or more layers of fine aggregate, while **thin asphalt overlay** consists of a new layer of asphalt applied over an existing asphalt surface. The thickness of an overlay for the purposes of this project should not exceed 1.5 inches.

Depending on its application, rubber-modified asphalt has numerous potential benefits including increased road life, and providing a valuable end use for recycled waste tires. The objective of this grant is to determine if rubber-modified asphalt can provide superior performance to standard asphalt in certain applications.

This grant will fund the installation of **either** chip seal **or** thin asphalt overlay utilizing rubber-modified asphalt. **Applicants are not eligible for both options and must choose between the chip seal or the asphalt overlay.** This grant will provide funding for:

The purchase and application of 24,000 square yards of material (rubber-modified asphalt and aggregate) to **chip seal** a county road. With a road that has the average lane-width of 10 feet, this amount of material is sufficient to apply one layer of chip seal over approximately four lane-miles, two layers over two lane-miles, or three layers over approximately 1.33 miles.

**-OR-**

The purchase and application of 12,000 square yards of material (rubber-modified asphalt and aggregate) to add a **thin asphalt overlay** no greater than 1.5 inches in thickness to a county road. With a road that has the average lane-width of about 10 feet, this amount of material is sufficient to apply an overlay over approximately 2 lane-miles (1 mile of road).

Grantees must complete an equivalent area of paving using the same volume of material, conventional asphalt chip seal or thin asphalt overlay, on a section of road of similar age, condition, topography, traffic volume and type as the test section, for the purpose of comparison of standard asphalt to rubber-modified asphalt.

The conventional paving must be within the same timeframe as the rubberized asphalt laydown (usually the preceding or next day). The Cabinet will arrange testing for the conventional portion of the project.

The grantee and Cabinet must hold a preconstruction meeting with all involved parties before construction begins. This includes county or urban county government (county) elected officials, county engineer, county paving contractor, county rubber supplier, Cabinet members, Cabinet engineer, Cabinet testing engineering, and other necessary individuals.

The grantee must notify the Cabinet of the start date of the conventional and rubberized asphalt sections to ensure proper testing.

**Failure to hold a preconstruction meeting and notify the Cabinet of the conventional or rubberized asphalt start date could lead to a forfeiture of the grant monies since there would be no test data.**

The county must complete paving by the end of this calendar year.

For thin overlays, the Cabinet recommends the same mix design and PG Superpave grade for both pavements. Normally, this is PG 64-22 for the binder regarding county or urban roads. One can expect the rubberized asphalt to eventually grade out higher, but the binder before rubber addition may be initially specified as 64-22.

**Other Grant Conditions:**

1. Project documentation will include a Construction Completion Report including county Quality Assurance tests and a Final Report documenting the condition of the road after five years. Reports will include a narrative description of road conditions, photographs, and any other relevant information.
2. Grantees will conduct no additional maintenance or repairs on either section during the five year monitoring period. If at any point repairs are deemed necessary for public safety, the county will contact the Cabinet to receive written approval for maintenance over any unsafe sections.
3. The Cabinet will fund only the costs associated with the installation of rubber-modified asphalt section of road. The conventional paving is the grantee cost match and is considered part of the project for Cabinet testing.

**Other Grant Conditions Continued:**

1. The Cabinet reserves the right to modify the scope of any project or otherwise add conditions to the awarded project grant.
2. Applicants may include only county or urban county governments.
3. The Cabinet must approve the rubber-modified asphalt materials, contractor, and pavement specifications prior to the grantee entering into purchase agreements.
4. The applicant must follow state chip seal or thin asphalt overlay specifications. The Cabinet will test the conventional and rubberized sections against “[Kentucky Standard Specifications 2019](https://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx)”.
5. The applicant must submit an itemized cost estimate from a potential contractor or the county with the application.
6. The county will allow access to the finished project for inspection, testing, and review of signage by the Cabinet.
7. The Cabinet reserves the right to alter or suspend the grant program to accommodate other programmatic needs or initiatives.
8. Failure to comply with reporting requirements may result in the grantee being required to reimburse the Cabinet for all funds received, and ineligibility for future EEC grants.
9. Any change to the proposed project, after the grant is awarded, must be approved by the Cabinet in writing before the change is made.
10. If a county or urban county government is out of compliance with its Solid Waste Management Plan, that county or urban county government is ineligible to receive this grant.
11. No contractor, subcontractor, consultant, vendor, or supplier, or any employee or representative thereof, shall be an employee of the applicant.
12. Funding for this grant is dependent upon the availability of funding, not otherwise obligated, in the waste tire trust fund established in KRS 224.50-880. This is a competitive grant and the Cabinet expects to receive applications for many more projects than it is able to fund.

**In this 2024 grant cycle, we are especially looking to fund projects where there is heavy machinery traffic in addition to regular passenger vehicle traffic.**

**HOW APPLICATIONS WILL BE EVALUATED BY THE CABINET:**

Applications will be prioritized by:

1. The most efficient projects that generate the best information for the cost.
2. The condition of the road that is to be chip sealed or thin asphalt overlaid:the Cabinet will not award a grant for a project over a road that has a very poor base or surface conditions (Ex. Shoulder failure, large alligator cracking, large pot holes, and poor culvert crossings).
3. Similarity of rubber-modified and standard asphalt sections to be paved; in age, condition, topography, and traffic volume and type.
4. Projects that are geographically distributed across all areas of the state.
5. Previous experience with chip seal, thin overlay and/or rubber-modified asphalt projects by the county, paving contractor or rubber supplier.
6. The Cabinet’s assessment of the extent to which the proposed project will develop a market for Kentucky waste tires and protect human health, safety, and the environment. Some factors that will be used in this determination are those items outlined in the application, how many grants have previously been awarded in the county, and the project’s costs and forecasted benefits.
7. Plans for advertising and signage on the road receiving the project informing the public that the pavement project is grant that is funding a 5-year RMA study.
8. Completion of application, including the tables provided and the inclusion of additional requested materials. Incomplete applications will not be considered.

# APPLICANT PROFILE

To be eligible for this grant, applicants must meet the following criteria:

1. Have the legal authority to construct and operate the proposed project.
2. Have the ability to complete the project in compliance with the grant conditions.
3. The applicant and the person who will be managing the project shall not have received a final judgment or conviction of a state or federal environmental statute or regulation in the five (5) years before submitting the application and shall not have any outstanding violations of state or federal environmental statutes or regulations.

**APPLICANTS MUST ANSWER ALL OF THE FOLLOWING QUESTIONS OR PROVIDE AN EXPLANATION OF WHY THE ITEMS ARE NOT APPLICABLE TO THE PROPOSED PROJECT. FAILURE TO DO SO WILL RESULT IN YOUR APPLICATION BEING DISCARDED.**

**You may attach additional pages as required. This is a form field document.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **County/Urban-County Government Name** |  | | | | | | |
| **Street Address** |  | | | | | | |
| **Mailing Address** |  | | | | | | |
| **City** |  | | **Zip** | |  | | |
| **Project Contact** |  | | | | | | |
| **E-mail Address** |  | | | | | | |
| **Phone** |  | **Fax** |  | | | | |
| **Applicant’s Name** |  | | | | | |
| **Federal Tax ID#** |  | | | | | | |
| **Mailing Address** |  | | | | | |
| **City** |  | | **Zip** | |  | |
| **Phone** |  | **Fax** |  | | | |
| **E-mail Address** |  | | | | | |
| **Signature of Applicant’s Authorizing Official** |  | | | **Date** | |  |
| **Typed or Printed Name of Official** |  | | | | | |
| **Official Title** |  | | | | | | |

***Choose a Project: Circle One***

**Chip Seal** **OR**  **Asphalt Overlay**

**2. STATUS OF APPLICANT**

1. Does the applicant have the legal authority to construct and operate the proposed project?  Yes  No
2. Does the applicant have the ability to construct the project in compliance with the grant conditions?  Yes  No
3. Has the applicant, or the person who will be managing the project for the applicant, received a final judgment or conviction of a state or federal environmental statute or regulation in the five (5) years before submitting the application, **or** have any outstanding violations of state or federal environmental statutes or regulations?  Yes  No

**3. PROJECT DESCRIPTION**

**As attachment #1, provide the following information.**

* Identify or map the approximate geographic area, or the community, that will benefit from the project.
* An easily readable map identifying each of the road sections that will be conventional asphalt and rubber-modified asphalt.
* Representative photos of the proposed sections of road. Provide at least 10 photographs of each proposed section. **These photographed areas should be able to be replicated for future reports.**
* Daily traffic count and description of traffic type for each proposed section.
* Detailed description of the condition of road base for each proposed section.
* Description of prior chip sealing or thin asphalt overlay experience within the county.

**4. PROMOTION DETAIL**

**As attachment #2,** provide a plan to inform and educate the surrounding community about the project. You may attach examples of proposed newspaper articles, signage, or other media types intended to be used. (Pertinent facts for the suggested release may be found on our website at [Grants | Recycling and Local Assistance](https://eec.ky.gov/Environmental-Protection/Waste/recycling-and-local-assistance/rla-grants/Pages/default.aspx)). See the attached example sign.

**5. MILESTONES**

Please list a description of each key task and its approximate completion date. An example, is provided below. Please adjust the task description in your own grant application to describe the type of project you are proposing.

**Do not copy the example – use dates relevant to your own project timeline.**

**\*EXAMPLE\* Rubberized Asphalt Thin Overlay Project \*EXAMPLE\***

|  |  |
| --- | --- |
| **Task Description** | **Estimated Completion Date** |
| 1. Grant Awarded | June 15, 2024 |
| 1. Contact Rubber Suppliers | June 30, 2024 |
| 1. Contact Road Contractor for start date. | June 30, 2024 |
| 1. Participate in Cabinet Pre Construction Meeting | September 15, 2024 |
| 1. Award Contract for rubberized asphalt supplier | September 15, 2024 |
| 1. Prep roadway including pot-hole and structural repair | October 1, 2024 |
| 1. Contact newspapers, television and radio | October 15 , 2024 |
| 1. Project start, standard asphalt section | October 22 , 2024 |
| 1. Project start, rubber-modified asphalt section | October 23, 2024 |
| 1. Project complete | October 23, 2024 |
| 1. Receive QC test documentation from contractor | November 15, 2024 |
| 1. Construction Completion Report #1 due (QA/QC) | January 31, 2025 |
| 13. Final Report due | January 31, 2029 |

**Project Name:**

|  |  |
| --- | --- |
| **Task Description** | **Estimated Completion Date** |
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**6. BUDGET DETAIL**

Complete the budget table below by inserting the total cost from the contractor’s estimate. **In addition, attach the itemized cost estimate to this application.** All construction work must be completed by December 31, 2024.

|  |  |
| --- | --- |
| **Rubberized Asphalt Estimate Summary** | **COST** |
| RMA |  |
| Application of rubber-modified asphalt (up to 24,000 square yards for Chip Seal); *Itemize as cost per yard;* OR |  |
| **Application of rubber-modified asphalt (up to 12,000 square yards for Thin Overlay not to exceed 1.5 inches in thickness);** *Itemize as cost per yard.* |  |
|  |  |
|  |  |
| **Total Cost per Yard** |  |
| **Total RMA Grant Request** |  |
| **Conventional Asphalt** |  |
| **Application of matching conventional asphalt for Chip Seal;** *Itemize as cost per yard;* **OR** |  |
| **Application of matching conventional asphalt for Thin Overlay (Not to exceed 1.5 inches in thickness);** *Itemize as cost per yard.* |  |
|  |  |
|  |  |
| **Total Cost per Yard** |  |
| **Total Conventional Asphalt Expense :** |  |

**7. REPORTS**

**Construction Completion Report**

Grantee must submit a Construction Completion Report by January 31, 2025 which includes:

1. A narrative description of project with photographs of each pavement type and pictures of installed road sign(s).
2. Copies of documents or electronic links to media coverage associated.
3. Additional asphalt test reports.
4. All invoices and proof of payment.

**Final Report**

Grantee must submit a Final Report by January 31, 2030, which includes:

1. A written description of any damage to either asphalt type over the five year period. This includes agricultural, utility, automotive, and construction. Please include photos of all damage (pot holes, rutting, shoulder failures, cracking).
2. Pictures of both rubber-modified section and conventional asphalt section, preferably from the same locations and directions initial photos were taken to compare.

**Project Reimbursement**

Upon completion of the project, the Construction Completion Report and the final invoice will be sent to the Division of Waste Management.

Upon receipt, the Division of Waste Management will issue a payment to the selected County covering the approved scope of the rubber-modified asphalt project. The Division of Waste Management will not reimburse for costs over the original projected cost in the application, or for costs associated with any activity other than the purchase and installation of rubber-modified asphalt product in the approved project.

Signature

The head of the applying entity must sign the grant request. For those projects that require official authorization (such as by the urban county government council or county fiscal court), enclose the minutes of the meeting approving the project.

**ALL REPORTS SHOULD BE SUBMITTED TO THE ADDRESS BELOW**

SUBMISSION

Grant applications must be received **in this office** by close of business (4:30 p.m.) on **April 1, 2024.**  **No applications will be accepted after April 1, 2024**. One completed application and all supporting documentation must be submitted in order for the application to be considered. **Please do not bind or staple the application**. Mail deliver, or email your application to:

**Division of Waste Management**

**ATTN: Brittany Woodward**

**Recycling and Local Assistance Branch**

**300 Sower BLVD, 2nd Floor**

**Frankfort, KY 40601**

**bwoodward@ky.gov**

**Direct grant questions to Brittany Woodward at 502-782-0860 or bwoodward@ky.gov**.

**Direct technical questions to Mr. George F. Gilbert, P.E. at 502-598-9860 george.gilbert60@gmail.com**

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