

Montana Transportation Alternatives (TA) Program
2021 Instructions
Pavement Preservation Project

Instructions:

Completed applications must be received by:

Friday, June 4, 2021 – 5:00 pm (MST)

MDT contact for questions: Dave Holien, TA Program Manager
406-444-6118
dhолien@mt.gov

There are two types of applications accepted, one for Capital Improvement projects and one for Pavement Preservation projects of existing infrastructure. Contained herein are the instructions for a Pavement Preservation project.

Applications must be submitted on the PDF application form provided on the MDT TA Program website.

Submit one (1) electronic version of the application. Hard copy applications will not be accepted.

The electronic version must be submitted by uploading to the State of Montana File Transfer Service (ePass) site.

The State of Montana File Transfer Service (ePass) website can be accessed at this link: <https://transfer.mt.gov>. To upload to ePass an account must be created, unless the person who is uploading already has an account. Uploading instructions can be accessed at: <https://transfer.mt.gov/Home/Instructions>. When your application has been uploaded the ePass system will prompt you for an email. Enter dhолien@mt.gov and press send to submit your application.

MDT reserves the right to remove a project from further consideration should any of the following occur during the scoring process:

- The project receives a score of less than 25 in either “Project Benefits” or “Project Risk Analysis” sections
- A fatal flaw is identified. For example: incomplete applications, lack of maintenance commitment by the local agency, substantial right-of-way or environmental impact, etc.

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Applications must be submitted on the PDF application form provided on the MDT TA Program website.

Below are the instructions for completing a TA Application for a Pavement Preservation Project:

1. Project Name

Provide the name of the project as it is locally known.

2. Local Entity Sponsor (Project Sponsor)

Provide the name of the local entity that is nominating the project as the Project Sponsor (i.e. City, County, Tribal Government, etc.).

3. Population

If the project is located within a City or urban area, state if the population is over 5,000 or under 5,000. The exact population is not required, only whether it is over 5,000 or under 5,000. **2010 U.S. Census data** should be used (2020 official results are not yet available). If the project is located outside of a city or urban area, it will be assumed to be rural and no population data is needed. If population of the Sponsor is not clearly defined by U.S. Census (i.e. Department of Natural Resources, transit agency, etc.), indicate that the population is undefined. These types of Sponsors are still eligible entities and will utilize funding distribution for “other areas” (rather than for areas specifically above or below 5,000). If you are uncertain about how to declare the population, please contact the MDT TA Program Manager.

4. Project Contact (name, title, address, phone number(s), email)

Provide the name, title, address, phone number, and email address of the main point of contact for the Project Sponsor. Please note that the project contact must be an employee or elected official representing the Project Sponsor.

5. Estimated Total Project Cost

Fill out the cost estimate table in the application. Ensure to double check that the numbers add up in each of the rows and columns. Project cost does not affect the scoring of the application, but it is used to determine fundability and compliance with funding distribution. The application cap for a Pavement Preservation TA project is \$200,000 for Federal TA Share (86.58%) requested. The estimated cost should be as accurate as possible, be developed using industry-accepted project estimating techniques, and broken down as follows:

- a) **Construction (CN)** – this is the cost to construct/build/implement the project.
- b) **Preliminary Engineering (PE)** – this is the cost to design the project and MDT’s management of the project. The TA Program has only done one prior TA Pavement Preservation project, so a representative average is not available. Estimating PE at 35% of the Construction estimate is a good starting point.
- c) **Construction Engineering (CE)** – this is the cost to inspect and administer the project while it is being constructed/implemented. The TA Program has only done one prior TA Pavement

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Preservation project, so a representative average is not available. Estimating PE at 25% of the Construction estimate is a good starting point.

- d) **Right-of-Way (RW)** – cost to purchase construction permits, easements, and right-of-way (if applicable).
- e) **Utility Costs (IC)** – cost to relocate utilities (if applicable).
- f) **Total** – total of the above sections

Example of the methodology used to fill out the cost estimate table below:

We recommend that applicants start by estimating the construction cost. This is the estimated construction contract award amount (bid amount) submitted by a contractor (once the project is ready to bid). This starts with a detailed breakdown of bid items (unit prices and quantities for construction items such as crack seal, fog seal, asphalt patching, asphalt overlay, etc.), which is the preferred method (which will not be explained here). Another option would be to estimate cost by using a cost per square yard/cost per mile to determine cost. Again, this will not be explained here. The more detailed and accurate the estimate is, the better. We recommend working with an engineer who has experience in estimating the construction cost for the type of project being applied for. This detailed breakdown cost estimate for construction can be attached to the application in the Appendix section.

The explanation below will focus on filling out the cost estimate table as shown below. This assumes that a detailed construction cost estimate has been prepared to calculate estimated construction costs (estimated bid amount). For this example, let's say we arrive at an estimated construction cost of \$60,000 for a pavement preservation project. This would be the money paid to the contractor to complete the construction. Then it is advised to add on a contingency amount. A 20-30% contingency amount is a good starting point to account for unexpected items/costs and potential higher than anticipated bids. For this example, we will use 20%. So, \$60,000 multiplied by 1.20 (20% contingency) equals \$72,000. Adding an inflation amount of 3% per year from time of application to anticipated construction can also be added. Then we need to account for the MDT indirect cost rate (IDC) which is currently 10.99% and can change slightly annually. So, we will take \$60,000 multiplied by 1.1099 (the 10.99% IDC rate) which equals \$79,913. An extra (optional) step at this point would be to round up to an even number which effectively will add in extra contingency. So, we will round this up to \$80,000. This will be the number to use in the table below for the Construction (CN) amount.

The next step would be to calculate the Preliminary Engineering (PE) and Construction Engineering (CE) amounts. As described above, estimating the PE at 35% of the Construction cost and CE at 25% of the Construction costs is a good starting point. In this example we will use the 35% and 25% amounts for PE and CE. To calculate the PE amount, we would multiply \$80,000 by 0.35 (35% for PE) which equals \$28,000. To calculate the CE amount, we would multiply \$80,000 by 0.25 (25% for CE) which equals \$20,000.

Because we already accounted for contingency and IDC in the CN cost estimate and used that number to find the estimated totals for PE and CE, contingency and IDC are effectively also included in PE and CE as well. In this example we are assuming no RW or IC phase, so those costs are N/A. (Any phases not needed can be entered as N/A.) The last thing that needs to be done is to distribute the costs between the TA and State match columns (State match is assumed in this example). The TA amount is the Federal Share which is 86.58% of the total cost and the match is 13.42% of the total cost.

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To determine the amounts for the TA Federal Share (86.58%) and State match (13.42%), start by taking the total costs for each phase and multiplying by 86.58% and then filling in the TA column. Then take the total costs and multiply by 13.42% to fill in the match column. Round to the nearest dollar.

For example, to calculate the PE amounts for the TA Federal Share we would take \$28,000 and multiply by 0.8658 (86.58%) to get \$24,242. To calculate the amount for the match, we would take \$28,000 and multiply by 0.1342 (13.42%) to get \$3,758. Finally add each column and fill in the totals in the bottom row. Ensure to double check calculations and that columns add up correctly.

If Local Additional Contribution funding (100% local funding) is planned for the project, contact the MDT Program Manager to ensure costs are accurately shown in the table. This funding category is if a Project Sponsor wanted to contribute additional funds to the project (above the match amount, if required).

	Total Cost (100%)	Federal Share (TA) 86.58%	Match 13.42%	Additional Contribution
Preliminary Engineering (PE)	\$28,000	\$24,242	\$3,758	N/A
Construction (CN)	\$80,000	\$69,264	\$10,736	N/A
Construction Engineering (CE)	\$20,000	\$17,316	\$2,684	N/A
Right-of-Way (RW)	N/A	N/A	N/A	N/A
Incidental Construction (Utility involvement) (IC)	N/A	N/A	N/A	N/A
TOTAL	\$128,000	\$110,822	\$17,178	N/A

One final step in the application is to identify the match type for the project. Using the check boxes, mark whether the match is State Match (on-system Pavement Preservation project where the original construction used federal funds), Local Match, Combined (State and Local), or no match required (projects on Reservations). Additionally, if the match is a combination between State and Local, fill in each amount.

6. Project Description

Describe the overall project. What is being proposed? Why is the project being proposed? What is the local need and how does the project address that local need? Where is the project located? Maps and photos to provide further clarification should be provided in the Appendix. Be sure to include as much detail as possible.

Pavement Preservation information: The two general surface types found on the shared-use paths and sidewalks are asphalt and concrete pavements (gravel surfaced paths are ineligible for maintenance).

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1. The general treatments for asphalt pavement preservation can include, but are not limited to: crack sealing, patching, fog sealing and overlays. For more information here is a link to MDT's Shared Use Paths Inventory and Detailed Maintenance Plan:

<http://leg.mt.gov/content/Committees/Interim/2015-2016/Revenue-and-Transportation/Meetings/Nov-2015/shared-use-trail-report-draft.pdf>

Upgrading ADA as necessary is allowable on asphalt pavement preservation projects.

2. Concrete can be considered in this pavement preservation category, but the pavement preservation needs to be minor and not total replacement. Stand-alone curb ramp ADA upgrade projects will not be considered in this pavement preservation category. Stand-alone ADA upgrade projects are considered new infrastructure and are eligible under the Capital Improvement TA project category. Concrete pavement preservation can be, but not limited to: slab jacking, diamond grinding, joint resealing, crack sealing, overlays, and partial-depth repair. Work can include replacing intermittent cracked, heaved, or deteriorated concrete, and may include ADA improvements as required.

7. Project Eligibility

Describe how the project is eligible under TA and cite the eligible category (refer to the Eligible Entities and Eligible Projects described in the FAST Act):

http://www.fhwa.dot.gov/environment/transportation_alternatives/guidance/guidance_2016.cfm

Also describe how the project is consistent with the priorities of TranPlanMT and how it supports at least 1 of the following TranPlanMT policy goals (for more information on these policy goals, please refer to the following: <http://www.mdt.mt.gov/tranplan>

- Economic Development
- Traveler Safety
- Bicycle and Pedestrian Transportation
- Land Use Planning
- Roadway System Performance
- Public Transportation
- Access Management

Describe how the project was originally funded. Include the limits of the original project and the original project name and funding source. **The original project must have been federally funded to be eligible as a Pavement Preservation TA project. Or, if the facility is State maintained it is also eligible for as a Pavement Preservation TA project.**

In addition, discuss the project's consistency with local transportation plans or strategy. Does the project serve a need identified in a local transportation plan? If located in a **Metropolitan Planning Organization (MPO) (City with a population over 50,000 – Billings, Missoula, and Great Falls)**, is the project identified in the MPO's Long-Range Transportation Plan? Is it consistent with the intent and goals of a local

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transportation plan if one exists? **If the project is located within an MPO, coordination with the MPO is mandatory and a letter of support is required from the MPO and must be included as an attachment in the Appendix.**

8. PROJECT BENEFITS (100 points)

Emphasis should be added to the following sections in a coherent, well thought-out manner, as safety, preservation, and accessibility are a priority for MDT in accordance with state and federal policies, practices, goals, and laws.

- a) Safety and Preservation:** Describe how the project maintains and improves public safety and how it addresses existing surface condition and safety concerns. What are the safety benefits of the project? What are the pavement preservation benefits and what is the expected design life of the treatment? Why is the treatment being proposed over a different treatment? What are the past pavement preservation treatments that have been accomplished over the life of the existing project? What is the plan for maintaining the project in the future? Does the project address existing crash clusters or inherent safety risks?
- b) Accessibility:** Describe how the project improves the accessibility of Montana's public transportation system for all users and meets requirements of the Americans with Disabilities Act (ADA). Explain specifically how increased access, inclusion and equal opportunity will be provided with the project.
- c) Connectivity and Demand:** Discuss how the project will provide tangible benefits to the local transportation environment. Describe how it will improve or create linkages/connectivity to bicycle and pedestrian facilities or other transportation alternatives. Also include discussions on the proximity to the existing transportation system and how the termini, or ends of the project, are logical and fit well within the local system. Describe how the project will satisfy an identifiable transportation need. Describe the demand of the current facility. Is it well used? If it is improved, will usage increase?

9. RISK ANALYSIS (100 points)

This section should present the Sponsor's understanding of the risks associated with the project, as well as how these risks will be mitigated. All projects have risks associated with them. This section will be evaluated on how well the Sponsor understands the risks and how they are proposed to be mitigated. Inadequate discussion or a laissez-faire approach to any of these points will result in a very low score.

- a) Budget:** Describe how the construction budget was developed, including supporting methods, resources, or comparisons. A thorough and accurate budget is critical to the application and will be scored accordingly. Generalities or gross approximations should be avoided. The services of an engineer for development of the project cost estimate is strongly encouraged. A detailed construction cost estimate can be attached in the Appendix.

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b) Matching Funds: A match by the local entity is required for most TA projects as per federal law (23 U.S.C. 120). There are, however, two types of project that do not require a match by the local entity:

- i. Projects that are on a designated State Highway System, within MDT right-of-way, applying for a Pavement Preservation Project, and where the original construction of the facility used federal funds (*these Projects qualify for State matching funds*)
- ii. Projects that are within reservation lands (*these projects require no matching funds and are 100% Federally Funded with TA funds*)

All other projects will require a local match of 13.42%. No soft or in-kind matches are permitted; a cash match is required. Local matching funds will also be subject to MDT's indirect cost rate (IDC). MDT is required by law to collect indirect costs associated with project development. The indirect cost rate can change from year to year. For 2021, the IDC rate is 10.99%. Please acknowledge in your discussion that you are prepared to pay the IDC on required local matching funds. For awarding construction projects, MDT typically follows MDT's Guidelines for Construction Award guidance; depending on the size of the project MDT will award projects anywhere from 10% to 30% over the Engineer's Estimate without the need to justify the award amount. MDT will sometimes choose to justify and award a bid even if the award amount is outside of guidelines. MDT's Guidelines for Award are shown on Page 5 of the Frequently Asked Questions:

\\state\\mdt\\prd\\WebAppData\\External\\CDB\\TRANSPORTATION_ALTERNATIVES\\TA_FAQ.pdf

State whether or not local matching funds are required, and describe the status of the local match, if required. Specify if the match is already in-hand and committed to the project, if it needs to be raised, or otherwise.

If unsure whether the project is on-system or not, contact the appropriate MDT District or the TA Program Manager.

c) Public Involvement: A publicly advertised meeting in which the TA Application is discussed, and where the public can comment is a requirement of submitting an application. Describe how the public was involved in the selection/determination of the project. Does the local community support the project, and is this demonstrated? Do other local entities other than the Sponsor support the project? Were adjacent and affected landowners contacted? Letters of support from these entities can also be included in the Appendix.

d) MDT Coordination: Describe your efforts to coordinate the project with MDT local/District personnel prior to the application submittal to determine how the project fits with/impacts MDT facilities. This applies to all projects, including those not within MDT right-of-way. A list of MDT Contacts is listed on the TA website here:

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https://www.mdt.mt.gov/other/webdata/external/cdb/transportation_alternatives/MDT_TA_CONTACTS.pdf

- e) **Preservation of Original Purpose and Intent:** Describe how, upon completion, the project will function to its full intended intent and purpose and is not dependent on other projects (local or otherwise). What is the design life of the preservation treatment?
- f) **Project Ownership and Maintenance:** The local sponsor, or its agent, is responsible for project maintenance, including projects located within MDT right-of-way, unless a project is proposed on a facility where MDT is already responsible for maintenance. In this case, MDT will continue to maintain the facility. Describe who will be responsible for operation and maintenance of the completed project. What is the plan to ensure maintenance is performed in a timely and adequate manner? Maintenance may include sweeping, snow removal, crack sealing on asphalt surfacing, and other activities necessary for public use and safety. Does the local project sponsor have the equipment, personnel, and maintenance budget necessary accomplish this additional maintenance?
- g) **Project Right-of-Way and Railroad:** Describe the status of right-of-way for the project, and the means and methods used to determine the status. Specifically, look at existing right-of-way plans, (State, County, City, Town) road plans showing existing right-of-way widths, or plats that show the existing street widths. The information used to determine the right-of-way should be attached in the Appendix.

Discussion should be provided to identify whether right-of-way is secured and free of conflicts. If it appears to the Scoring Committee that the right-of-way is confined and construction of the project within the existing right-of-way looks challenging, this is an increased risk and may result in lower scores. Cut or fill slopes of the proposed facility must be contained within the existing right-of-way or additional right-of-way may need to be purchased with the project through a right-of-way phase. If the existing R/W is narrow and could be challenging to fit in the project, consider adding a right-of-way phase. If it is not secured/free of conflicts, discuss the plan for securing the necessary right-of-way. Have landowners been notified of the right-of-way needs and are they agreeable with the project? If right-of-way is not secured and either construction permits, easements, or acquisition are needed, ensure to estimate the costs for this phase. Additionally, does the project have any railroad involvement? Does the project either cross or parallel a railroad? Describe the communication and outreach done to date with the railroad company. Are they agreeable to the project? Are easements needed from the railroad to facilitate the work?

- h) **Project Utility Impacts:** Describe any utility impacts related to the project and the means and methods used to determine the utilities status. Are any utilities impacted? Were contacts made with utility companies or owners? Are there possibilities to discover utilities

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during construction? Discuss the plan for dealing with known and unknown utility impacts. The MDT scoring committee may visually review the project area using aerial and ground-level photographs or other means. Utilities visible but not addressed in the application will have a negative impact on scoring. If utilities are present in the corridor where a project is proposed, all utility companies should be contacted, and those discussions should be summarized in this section.

10. Appendix

Please limit attachments to only those necessary and relevant. For example, do not attach an entire community Long-Range Transportation Plan. Instead, provide a link to the plan. Relevant items to include in the Appendix: maps showing project location, on-site project photos, drawings/sketches of proposed cross section (sidewalk/shared-use path), plats or right-of-way plans showing widths of existing easements, detailed cost estimate for a construction phase and other phases (if needed), and letters of support (adjacent landowners, local citizens, and local community groups).

11. Finalize the Application

The following are Instructions to combine the Application form with attachments.

First, the application needs to be complete. Once attachments are added, no additional edits can be made to the Application form (that is unless you go through this process again after making the desired application edits). Once the application is complete, PRINT the Application form to a PDF file. This will create a “flat” PDF file. (The Application form is an interactive PDF that will not allow merging with other PDF.) Once you have printed your file into a flat PDF file, you can then use a program such as Adobe Acrobat Pro DC to combine the “flat” PDF file that was printed from the Application form with other PDFs or documents (this will not be explained here). If you do not have Adobe Acrobat Pro DC to combine PDF files, there are free web-based and downloadable software options to merge PDF files. Simply search “merge PDF” to find options to merge multiple PDF files into a single file. Once you have the combined PDF file containing the Application and all attachments follow the steps on Page 1 of this document to upload your application to the State of Montana File Transfer Service (ePass) site.