



Asphalt Pavement Infrared Repair Specialty Services

Owner:

Minneapolis Park and Recreation Board

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Asphalt Pavement Surface Infrared Patching Services

TABLE OF CONTENTS

1.0	INTRODUCTION
2.0	BACKGROUND ABOUT MINNEAPOLIS PARK AND RECREATION BOARD
3.0	MPRB GENERAL REQUIREMENTS
4.0	CONTRACT TERMS
5.0	SPECIFICATIONS

1. INTRODUCTION

OVERVIEW & BACKGROUND

The Minneapolis Parks and Recreation Board (MPRB) has over 100 miles of regional trails and pathways and over 100 miles of internal neighborhood park trails and pathways. The MPRB also has numerous parking lots and asphaltic surfaces to support parking and staging for use within the park.

The MPRB team has been evaluating the proper care of asphalt surfaces and determined that there is a need to have specialized services to perform infrared patching within the trail and pathway network.

PURPOSE

The goal of this project is to have a vendor available to respond to annual identified areas within the pathway or trail system that need infrared patching.

The goal of this project is to enhance the pavement surface and to repair damaged, cracked or failing pavement.

The vendor selected will also support a **positive experience for the users of the park system with a trail network that enhances the experience walking, biking or scooting on the trails or pathways.**

The Minneapolis Park and Recreation Board (MPRB) is seeking vendor(s) to provide qualified, responsive, and responsible individuals to:

- Provide for infrared pavement repair services for 2023-2026. Potentially the contract could be extended based on vendor performance and the MPRB PM being satisfied with the work performed.
- Provide an estimated 25,000 sq. ft of repairs per year
- Provide in-field inspection/inventory services to determine specific trail areas appropriate for repair
- Vendor must invoice to the MPRB monthly for services rendered. Pre-payment is not allowed. Invoices shall include:

Asphalt Pavement Surface Infrared Patching Services



- Park Pathway or trail name and address
- Square footage completed for the specified pathway or trail

2. BACKGROUND OF MPRB

The MRPB is an independent, semi-autonomous body responsible for maintaining and developing the Minneapolis Park system to meet the needs of citizens of Minneapolis. This unique structure allows independent decision-making so the MPRB can efficiently oversee a diverse system of land and water. Nine Park Board Commissioners are elected every four years: one from each of the six park districts within the city and three that serve at-large. The Board of Commissioners appoints the Superintendent to provide high-level oversight and leadership to the nationally renowned park system. Three Assistant Superintendents, all appointed by the Superintendent, oversee operations, planning and recreation with a staff of 400 + full-time and 1200 part-time employees and an annual operating budget of \$54 million. The MPRB is one of five Minnesota park agencies and one of only 108 agencies in the United States that is accredited by the Commission for Accreditation of Park and Recreation Agencies (CAPRA).

The Minneapolis Park System consists of 182 park properties, including local and regional parks, playgrounds, triangles, golf courses, gardens, picnic areas, biking and walking paths, nature sanctuaries, and the 55-mile Grand Rounds National Scenic Byway. Together, these properties total 6,732 acres of land and water. The backbone of the park system is its full-service neighborhood recreation centers. It serves as host to approximately sixteen million visitors annually.

3. GENERAL REQUIREMENTS

- A. An owner representative will be assigned to be the MPRB project manager (MPRB PM). This person has the delegated authority from the Superintendent to perform contract management and oversight on behalf of the owner.
- B. No Smoking shall occur on MPRB properties. Refer to this web site regarding the MPRB policy.
https://www.minneapolisparcs.org/about_us/ordinances_park_rules/alcohol_tobacco/
- C. All personnel shall be dressed professionally and have identification indicating that they are providing contracted services to the MPRB.
- D. A no cost MPRB permit is required to work on MPRB properties. Further information regarding MPRB permit applications are in this web site:
https://www.minneapolisparcs.org/rentals_permits/construction_permits/
- E. The vendor shall follow all applicable OSHA safety requirements for the services identified in this invitation.
- F. Materials or items used for the requested services shall be staged and stockpiled on site per the approval of the MPRB PM.
- G. The work site shall be secured not allowing individuals or public to access the area being serviced.
- H. The MPRB reserves the right to not award based on this solicitation and reserves the right to award these services to multiple vendors.
- I. The vendor shall be solely responsible for verifying the exact location of all utilities or hazards prior to any work being performed.
- J. All removed materials (as applicable) shall be removed off site and disposed of properly in accordance with local, regional, state and federal requirements.
- K. At No Time shall the contractor impact the existing vegetation, unless reviewed and approved by the MPRB PM. Access into and out of each park shall be reviewed and approved with the MPRB PM. Tree canopies and other vegetation shall be protected from damage. Any and all protection required for vegetation and trees shall be incidental to the cost of performing the required work.
- L. The vendor shall always conduct work as to ensure the least possible obstruction to pedestrians, bicyclists or traffic and any inconvenience to the public and the residents near the park. Work shall be confined only to the area being repaired. On site vendor staff shall facilitate movement around the area professionally with safety being the number one priority for the vendor, MPRB staff and the public.

If required, no road or street shall be closed to the public except with the permission of the transportation corridor owner and / or proper governmental authority. Fire hydrants on or adjacent to the work shall always be accessible to firefighting equipment. Temporary provisions shall be made by the vendor, allow movement around the work area and all work shall not impede drainage to gutters, sewer inlets, etc.

Asphalt Pavement Surface Infrared Patching Services

4. CONTRACT TERMS

Basis of Award

The successful Contractor will be awarded an initial one (1) year contract from [Month, Day, Year] through [Month, Day, Year]. This contract may be renewed at the expiration of the initial term at the request of the City. The City reserved the right to extend this contract for four (4) additional 12-month periods if agreeable to both parties.

Price Escalation

Prices shall be firm for the initial contract period. After the initial contract period, an escalation may be allowed for any extensions based upon a demonstrable industry wide, regional and/or operational increases in the contractor's costs. In order for documentary evidence to be considered, it must be submitted to the City of Minneapolis Procurement Office sixty (60) days prior to the end of the current contract year. The exact amount of escalation, if any, will be governed by the validity of the documentary evidence submitted. No price increase will be effective until approved by the City of Minneapolis Procurement Office. With the exception of extraordinary circumstances, the amount of any increase shall not exceed ten (10) percent.

Non-Exclusive

Any contract(s) resulting from this Request for Bid will not be an exclusive contract and the City

5. PROJECT SPECIFICATIONS

INFRARED PAVEMENT REPAIR

Requirement:

Provide the resources and equipment for a seamless repair of the bituminous pavement surface by the application of evenly distributed infrared heat to aid in the reworking and remixing of the existing asphalt mix. General repairs are for longitudinal cracking, transverse cracking, upheaving or dips, and other localized defects within the trail or pathway. Pothole repairs will also be part of the requested services.

Infrared repair is for **pedestrian** pathways or trails and **bike** pathways and trails, varying in width from 4' to 12'. Repair areas are defined further in these specifications.

The required pavement repairs will be identified in either MPRB regional or neighborhood parks, as illustrated further in the MPRB website. [Home - Minneapolis Park & Recreation Board \(minneapolisparcs.org\)](http://minneapolisparcs.org)

Process Requirement (General):

The vendor shall use the following infrared asphalt repair steps:

1. Using a broom or blower, remove dirt, debris, and pooling water from the area to prepare for the repair. **DO NOT use this method of repair if standing water is on the pavement a minimal amount is okay but standard water will not allow penetration of the infrared rays. If excessive dirt, debris or mud is on the surface vendor shall use a heavy-duty broom to remove the material.**
2. Position the infrared panel over the area to be repaired. The heated area should extend at least 6 inches beyond the repair area on all sides.
3. Apply heat, not exceeding 350 degrees Fahrenheit for the recommended length of time as required for the repair area. Small patches shall require 7-10 minutes of heat to soften the pavement, while other larger areas may need up to 25 minutes of heat exposure. Exposure time will depend on the existing

Asphalt Pavement Surface Infrared Patching Services

asphalt's depth, the season, and the existing asphalt mixture used. The sufficient temperature shall be a sufficient temperature allow the remixing of the asphalt without oxidation or burning.

4. Remove the infrared panel.
5. Using a mechanical tiller, scarify and thoroughly mix the repair area to depth of 2 inches (Minimal). Additional depth may be required depending on the type of repair identified. Leave the outer 6 inches of the heated area unworked to ensure good bonding of the old material to the new material.
6. Mix in an asphalt rejuvenator and replenish any oxidized oils.
7. Add a minimal amount of fresh hot-mix asphalt mixture.
8. Reshape repair area by hand to match grade of adjacent pavement, take care to minimize segregation of the asphalt mixture.
9. Compact the surface with a steel drum roller. The edges of the patch should be compacted first. The final surface should be smooth, tight, and match the grade of the adjacent pavement.
10. The patch shall be cool on the surface to 175 degrees Fahrenheit before opening to use.

Any deviation from this process shall require approval from the MPRB PM and a contract change order for the project maybe required.

Transverse Crack Repair Requirements (cracks perpendicular to the movement on the trail)

Two feet minimal width required for all transverse crack repairs.

Width shall be a minimum of 1 foot on either side of the center of the crack.

Total infrared repair shall be full width of the existing trail or pathway, regardless of the length of the transverse crack.

Longitudinal Crack Repair Requirements (cracks parallel to the movement on the trail)

Two feet minimum width is required for all longitudinal crack repairs.

Repair shall extend one foot beyond the longitudinal crack at the beginning point and at the end point and be a minimum of 1 foot on either side of the center of the crack.

Depressions, potholes, surface area alligator cracking, or areas with deteriorated trail or pathway surface.

The repair shall extend a minimum of 1 foot on all sides for the area needing rehabilitation Example if the pothole is approximately 2 feet x 3 feet – the repair shall be 3 feet x 4 feet.

MPRB Responsibility and Repair Performance Requirements

The MPRB PM or their designee will review and approve all repairs proposed by the contractor. It is the contractors responsibility to mark proposed repairs on site and enter the information into MPRB's repair tracking system. MPRB will provide log-in information and training on the repair tracking system. The contractor must use their own mobile device with GPS enabled (phone, iPad, etc.).

Based on initial inspection of the trails and pathways it is estimated that **each mile will require approximately 7%** of the surface area to be repaired. (example: an initial estimate is 1,200 square feet per mile).

Based on an initial inspection it is anticipated that there will be the following square footage quantities for needed infrared repair for the 4' to 12' trails or pathways.

TABLE A

Asphalt Pavement Surface Infrared Patching Services



Calendar Year	Quantity (Sq. Ft)
2023	25,000
2024	25,000
2025	25,000

All repairs shall match the existing grade.

The repair shall be tightly compacted, have a smooth, resistant surface, and be tightly bonded to the existing adjacent pavement. Tightly bonded is defined as thermally, chemically reconstructed where resulting pavement is continuous without seams or longitudinal / vertical cracks.

MPRB will inspect and accept the repair based on placement of a 10-foot standard level on the center of the patch, longitudinally (i.e., direction of movement on the trail) and not have > 1/4" of height from existing pavement to the top of the repaired area.

MPRB will inspect and accept the repair, based on the placement of a 10-foot standard level placed perpendicular to the major direction of the repair and not have > ¼ inch of height differentiation of height across the repair.

Should these requirements not be met the area shall be re-worked with the infrared repair process requirements.

The contractor is expected to provide adequate notice to trail users that work is happening on the trail. The contractor must provide closure barricades on the "upstream" side of the closure ensuring that users are aware of the work ahead. MPRB will provide closure and informational signage that the contractor will place in conjunction with closure barricades.

Pavement marking or striping is not part of the requested services.

Bid Requirements:

The vendor shall provide qualified individuals who have performed requested services, minimal square foot infrared repair services experience shall be on-site 1,000 square feet of repair.

Qualified individuals shall have a minimum of 2 (two) years of experience related to the required services. These qualified individuals shall be on site during the time the services are provided.

Within the **bid response provide a related service** provided by your company. Include name of owner, square footage of infrared pavement repair and the total contract cost.

In addition, **provide manufacturer's product data, equipment specifications and material specifications as part of the bid package**. Failure to do so will constitute a non-responsive bid and the bid will be rejected.

Unit prices shall be provided for a quantity of 75,000 square feet of infrared pavement repair. Refer to Table A for the estimated quantity for 2022.

Method of Payment

Asphalt Pavement Surface Infrared Patching Services



Payment will be paid as a square foot (length x width) of the accepted repaired area, as measured in the field. The unit price shall include mobilization to each trail or pathway and all incidental costs to perform the required work.

Warranty

The contractor shall warrant the repair for 12 (twelve) months and repair any failures at no expense to the MPRB.

Failure is defined as the following:

- a. Greater than 5% cracking in the repaired area
- b. Greater than 5% raveling of material from the repaired area
- c. Rutting more than ½ inch.
- d. Not providing a seamless repair Infrared Bituminous Pavement Repair