2025 August Asphalt Repair

Invitation to Bid

The City of Dyer requests your bid as to the following specifications:

Bids should include:

- Total price for specifications (on supplied bid sheet)
- References for at least 3 previous similar jobs
- Copy of Liability and Workman's Compensation Insurance Certificate for Bidder

Bids will be evaluated based on price, compliance with the specifications listed, as well as the reputation of the bidder.

Bids will be accepted at Dyer City Hall, 105 S. Main St, Dyer, TN until 10:00 a.m., Friday, August 22, 2025, when bids will be opened and read aloud. Questions should be directed to the Dyer City Hall at (731) 692-3767. The City of Dyer reserves to right to accept and/or reject any and all bids, as well as to permit any exceptions.

Locations for Repair

The City of Dyer is seeking bids per square yard for thermal asphalt repair for a period of 12 months from award date.

Specifications – Thermal Repair

Description

The work shall consist of furnishing materials (see Materials) and performing a permanent repair on an area of damaged asphalt pavement. The location to be restored shall be identified prior to the commencement of repair activities.

Materials

If needed a one-component emulsified maltenes recycling agent (rejuvenator) is to be applied to the restored area in a ratio of 1:1 with water. This solution shall be well dispersed with a commercial grade sprayer at a rate of 8 ounces per square yard of heated area. This application area shall include both the area under repair as well as the area heated but left undisturbed around the perimeter of the repair. The application shall take place after the area has been scarified and just prior to the addition of new asphalt. This rejuvenator replaces the light oil component of asphalt, which has oxidized out over time.

The Infrared repair contractor shall provide TDOT 411E or D mix at plant mix temperature (275-325 degrees Fahrenheit) to be added to the repair to bring the area up to grade with the existing road.

Equipment

General – The infrared restoration equipment shall consist of a truck mounted self-contained asphalt restoration system. The KASI MODEL 2 or 4 P48 with ultimate air burner apparatus is an approved unit that meets the following equipment requirements. This unit is the standard for this project.

Infrared Heater- the heating chamber shall contain six 6' long stainless steel converters to generate the infrared radiation. The converters shall be made from a single piece of stainless steel pipe with NO WELDED ORIFICES. The chamber used shall consume no more than 12,500 BTU per square foot of heated area. This rate of consumption shall translate into the ability of the heater to soften asphalt to a depth of 1 ½ -2 ½ inches in 8-10 minutes without burning the surface.

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Asphalt Storage Unit- A thermostatically controlled storage unit will be utilized to insure that sufficient hot virgin asphalt is on hand. The reclaimer/storage unit shall contain two 37,000 BTU atmospheric infrared heaters. Thermostats shall work in conjunction with timers to insure proper temperature is maintained without harming the asphalt. Electronic ignition shall be standard. An automatic switchover regulator shall be used to reduce the tank pressure to 11" water column.

Compactor/Roller- the compaction equipment used shall be vibratory capable of generating at least 2000 lbs. of applied force/square inch

Steel Rake- a steel rake shall be used to delineate the repair area along the chalkline and to scarify the heated area of the patch inside the chalk line to a depth of at least 2 inches.

Asphalt Lute- a 36" wide lute shall be used to evenly distribute the added asphalt and to establish the proper grade.

Methods of Construction

General: Before the Infrared Restoration is begun, the proper authorities, in conjunction with the contractor will mark out the areas to be restored.

Safety:

Proper safety precautions shall be taken including traffic cones, signage, and flagmen (if necessary) to insure a safe workplace for workers, pedestrians and automobile traffic.

Defining and Preparing the Work Area:

The area shall be swept clean of dirt, loose aggregate or standing water.
A chalk line shall be drawn 6-12 inches back from the damage.

Heating the Repair Area:

The infrared chamber is lowered over the repair being sure to allow at least 12 – 18 inches of heated area beyond the perimeter of the original opening.
To insure the proper heating time, the contractor shall check the surface temperature of the asphalt at seven minutes and every minute thereafter using an infrared thermometer so as not to allow the surface temperature to exceed 350 degrees Fahrenheit. The heating time is influenced by the ambient temperature, the color of the pavement, the size of the aggregate, and the moisture content
After the appropriate heating time (typically 8-10 minutes), the asphalt surface will be softened to a depth of 2-2.5 inches.
The infrared chamber is then removed from the heated area.

Raking the Heated Area:

The backside of a steel rake is used to neatly square off the repair, cutting 6 – 12 inches back from the damage along the chalk line.
The area inside the repair is then deeply scarified, taking special care to eliminate the original seam between the repair and the road.
The maltenes rejuvenator shall be applied if needed, to the repair and the surrounding heated asphalt surface.

Adding Plant Mix Asphalt:

TDOT 411E or D mix (1/4" – 1/2" aggregate) is then added to the area to bring it up to proper grade.
The repair is luted smooth.

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Compaction:

The area is properly compacted being sure to roll the edges first to fuse the hot repair to the heated but untouched surrounding pavement.
A light coating of stone dust can then be spread over the repair to remove the tackiness. The road can then be opened to traffic.

Note: The total time for a typical single heat restoration should be no more than 20-30 minutes. This timeframe shall be strictly adhered to so as to insure that both the heated pavement and added asphalt have not been allowed to cool significantly. This guarantees the proper fusion between the repair and the existing road surface.

Standard Warranty

The infrared restoration installed under this specification shall be guaranteed by the contractor against failure resulting from defective materials or methods of application for a period of one year from date of installation.
The contractor shall guarantee to repair, without cost to the customer that part of the original restoration installed under this contract that, in the opinion of the property owner, has not remained in useful service.
The repair installed under this warranty shall be guaranteed the same as the original material- from the date of the original restoration. This warranty shall not include depressions or areas of settlement caused by lack of proper compaction of the base or sub-base material.

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BID FORM

Bidder Name (Company): _____

Bidder Contact: _____

Bidder Contact Phone: _____

Bidder Mailing Address: _____

_____

Bidder Phone: _____

Bidder E-mail: _____

Price per Square Yard (Thermal Asphalt Repair)
Including all materials and labor
Price for 12 months from Bid Date $ _____ Per square yard

Bids should include:

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Bids should be sealed and marked **"2025 August Asphalt Repair Bid"**