

Infrared repair method reduces time, material and labour costs

Potholes, trench cuts and other asphalt repairs are the bane of public works managers and road crews. Time-consuming, expensive asphalt repair work ties up traffic and is hazardous to road users.

Infrared asphalt repair technology enables road crews to save tons of time, material and labour costs in repairing hazardous potholes, alligator cracking, failed utility cuts and other surface defects that plague their asphalt streets and parking lots.

The infrared technique also provides superior repairs to roads, parking lots and driveways at savings of up to two-thirds the cost of conventional methods. It expedites repair by heating, fusing, and compacting recycled asphalt, saving equipment, labour, and new material in the process.

Repair larger surface areas

“The infrared system has enhanced our operations by reducing repair time and allowing us to repair larger surface areas,” says Steve Ortega, Street Operations Foreman for Commerce City, Colorado (just north of Denver). “It also does a better repair than just filling a pothole or alligator cracking with new asphalt.”

Ortega adds that using the city’s new asphalt repairing technology, purchased from Kasi Infrared Corp., his road crew can load up a couple of tons of asphalt and be busy all day.

He adds that, in addition to saving time, the new infrared repair technology enables his crew to recycle a substantial portion of the old asphalt, saving on material costs as well.

“In the past we would take four or five tons out to the streets. But now, due to recycling, we just take out about a ton and a half, or two tons at the most. That’s because you’re able to rejuvenate and reuse much of the asphalt being repaired.”

Although not a large community, Ortega says Commerce City is conscientious about keeping the 700 or so lane-miles of its roadways in good condition.

Commerce City recently purchased a



trailer-mounted Kasi Proheat 2 Ton Minuteman model, which is a self-contained asphalt restoration system. It is ideal for permanently repairing all general asphalt defects including potholes, surface cracking, utility cuts, trenches, birdbaths and manholes.

In operation, Kasi says infrared asphalt systems are much more efficient than traditional cut-and-remove asphalt repair.

The company’s infrared pavement-heating panel with its Stainless Steel and Inconel Converters generates the infrared radiation used to heat the asphalt pavement, softening it without damaging the asphalt, 2 to 2-1/2 inches deep. Normal time is less than seven minutes, and the system’s reclaimer keeps asphalt at plant mix temperature in any kind of weather, and can also reclaim stockpiled asphalt.

Reclaimed used asphalt

Using an infrared asphalt reclaiming and repair system provides savings on labour and repair time as well as material. Infrared restorations fuse to the existing pavement, creating a continuous surface. This eliminates the need for tack-coating the edges because the seams have been removed. It enhances durability, and allows roads to be opened to traffic immediately, plus it makes the repair process less expensive; since existing asphalt is recycled, crew size is typically limited to two, and only a single truck or trailer is used.

Paul Gustafson, owner of asphalt repair

company CT Infrared, has tripled its business volume with half the labour in two years using a Kasi Infrared system.

“Going from traditional cut-and-remove asphalt repair to infrared repair has tripled our business and profit, while cutting our costs in half,” says Gustafson. “Instead of cutting, removing, and throwing away a traditional asphalt patch, we can use mostly recycled material. We can do a typical 5x7-foot repair in less than 20 minutes, completed with one piece of equipment, a truck and two guys. There’s almost no traffic disruption.”

Gustafson adds that previously his crew was throwing away five tons of asphalt a day from cutting and repairing. “Now we’re able to reuse that asphalt, which for us is a savings of about \$650 per day,” he says.

To do the same 5x7-foot cut-and-remove asphalt repair would typically take about five or six labourers several hours of work. They would need a pavement saw to cut a straight edge around the damaged area, a jackhammer to break up the existing pavement, a bucket loader to excavate material, two trucks – one to remove excavated material and one to bring fresh asphalt – and a roller to compact the repair. It would also require enough new asphalt to replace all the excavated material.

Infrared asphalt repair withstands weathering and traffic to last much longer than conventional repair, Kasi notes.

Kasi Infrared

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