



Recycled Materials can be Useful for Road Construction

by Brad Fullmer

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Shannon Waters loves her job as office manager for North Salt Lake-based Morgan Asphalt in their recycling operations. That's because she fully understands the importance of what she does.

"Customers love the fact that we have the cleanest material of any recycling operation in the valley," said Waters, who assumed her present position in July 2008, when Morgan Asphalt purchased the crushing recycling operations from Binggli Rock who had acquired it from A.J. Dean. "We're picky about what material we let come in, and we take extra steps to clean it up before we process it."



Recycled materials operations are a key component for many contractors in Utah, supplying quality recycled asphalt and concrete, which is used mainly as a road base product for streets, subdivisions and parking lots.

"Recycled road base material is virtually the same as virgin (new) material," said Nate Durham, estimator and project manager for Morgan Asphalt. "Certain cities and municipalities will not allow us to use them and are not on board, but those who do use recycled concrete and asphalt think it works just as well."

The biggest reason for a municipality, government agency or private owner, beyond the 'green is good for the environment' or the 'right thing to do' mantra being preached in today's construction industry, is the fact that recycled material is up to 40 percent less expensive than new, virgin material, according to Durham. The less expensive material allows contractors to be more competitive in a difficult bid market. Plus, it is a quality product.

"We always try and use recycled materials," said Ryan Westover, president of Concrete Now in Layton. "We use a lot of recycled gravel for road base. Some cities won't use it, which I don't understand. It's less money, and it compacts really well, really tight. With my experience, it's every bit as good."

Savage Construction of Sandy uses the recycled material for road base under driveways, curb and gutter, and almost anything to do with flatwork, said Tim Savage, president of the company. He admits the product does have at least one drawback.

"I can get 95 percent compaction out of it, so it's not quite as good as new material," said Savage. "The problem using (recycled material) is that if you don't get the right compaction, you have to dig it out and do it again."

Morgan Asphalt's recycling operations accounts for roughly \$1 million a year in gross sales, which is a small percentage of their overall business. However, it's a segment they pay close attention to and feel is of great benefit to both owners and contractors.

"We've worked really hard at getting different cities and counties to accept recycled road base," said Morgan's Heather Morley, director of marketing and business development. "Our pit is very clean, and we've put \$300,000 into the facility, including \$150,000 into the crusher alone. We feel it's an important part of our business, and we're proud about taking old material and turning it into something that can be effectively reused."

Waters said being particular about old product they accept is the first step to ensuring the end product is the best it can be.

"We don't take mixed loads. We don't accept dirty asphalt," said Waters, who added that 80 percent of the used material they accept is concrete, and the other 20 percent asphalt. They remove as much rebar as possible from concrete before sending it into the crusher. A giant magnet ensures any stray scraps of metal are removed before it is ground into 3/4 inch road base.

"I turn away loads all the time that are mixed loads," said Waters. "We don't want asphalt in our road base. This business is very important to us, and municipalities are starting to see that a recycled product is just as good as a natural product."

Besides recycled concrete and asphalt, other companies are utilizing other green techniques in road construction that have proven effective. Granite Construction of North Salt Lake has been a local industry leader in the use of warm-mix asphalt, a process where asphalt is produced and placed at considerably lower temperatures than conventional hot-mix asphalt – up to 50 to 100 degrees (Fahrenheit) cooler.

"It's an environmentally-friendly product that works as well as hot mix methods," said Chris Faulhaber, Granite's environmental manager. Warm-mix asphalt allows contractors to place asphalt at cooler temperatures, generating fewer emissions and benefiting the employees who are actually putting the asphalt down. "It's definitely better for our workers," he said. "When it's really hot outside, it reduces the overall temperature."

Warm-mix asphalt has been used by Granite on a number of local projects, including an improvement to Wall Avenue in Ogden. So far, so good.

"It seems to be holding well," said Faulhaber, of a project that was done in late 2009. Time will tell how it holds up over another few years.

- Source: <http://www.facilitiesmagazine.com/colorado/paving-concrete>