

Following the use of the Asphalt Zipper to grind up the old asphalt road surface, Plumstead Township Public Works crew foreman, Bill Worthington operates the township motor grader to blend the milled material and profile grade it prior to compaction. This "recycled material" will be the new road sub-base.

As growing communities struggle to maintain their infrastructures, they look for methods of repair that are efficient and economical. Reclamation is a recycling method where asphalt pavement and the underlying materials are treated to produce a stabilized base course for new roads. This method can lower both cost and preparation time on most road and street repairs and also provide a quick and economical way to open trenches in asphalt.

Traditional methods of removing asphalt involve saw cutting, chunking, removing and hauling the asphalt off site, all of which is time consuming and expensive. When equipment is available, reclamation is by far the method of choice. Specifically, asphalt reclamation attachments (asphalt grinders, cutters or mills) can provide the means to quickly pulverize pavement and provide quality, new road base.

In 2008, Asphalt Zipper introduced the AZ-500B asphalt reclamation/recycling attachment to its product lineup. This portable attachment, powered by a 172hp John Deere® turbo diesel engine with 527-foot-pounds of torque, pulverizes asphalt up to 12-inches thick and 48-inches wide into 1-inch or less reusable material at a rate of over 4,000-square-foot per hour. It is designed to quick mount on the bucket of front end loaders.

The Plumstead Township Project

In April of 2008, Plumstead Township in Bucks County, PA, purchased an Asphalt Zipper AZ-500B to simplify their road reconstruction project. According to Alan Bleam, director of public works for Plumstead Township, the township learned about the Zipper at a trade show; soon after they were contacted to schedule a demonstration.

Bleam explained, "The demonstration was done on one of our township roads. The machine's ability to increase productivity is what sold it to us. For this project, the road base reconstruction preparation time was cut by 60 to 70 percent using the Zipper."

Reconstructing the roads in Plumstead Township is being done from the bottom up and involves the repair of approximately 10.000-square-yards of deteriorating road base. The Asphalt Zipper is being utilized to remove 6-inches of asphalt, which will be stockpiled for later use. The new road is constructed of 8-inches of ballast stone (plus or minus 4-inches), with a flexible base paving of 4-inches and a double layer of oil and chip. In June of 2008, a project was started that involved installation of over 700-feet of storm sewer and 10 inlet boxes on a road that was previously open ditches. The storm sewer was installed in the shoulder with several crossover locations. Following installation of the storm sewer, the Zipper was used to rejuvenate the flexible paving asphalt to a depth of about 5-inches. The asphalt from the road was profiled and compacted for use as ballast instead of purchasing crushed stone from a quarry. The project was completed by placing 3-inches of hot mix base paving as the final coat. All work was done by township employees' except the final paving, which was subcontracted.

According to Bleam, the Asphalt Zipper has fulfilled the township's expectations by streamlining the process and increasing productivity.

Bleam explained, "Previously, a motor grader was used to break up the base, creating large chunks of material that needed to be crushed; thereby extending the time before new stone base and paving could be done. We estimate that the Zipper is saving over 50 percent in man hours and 75 percent in machinery operation hours."

Bleam added, "The hands on training, follow-up and technical assistance and ease of operation have been above par. Customer service has also been great. We had a bit "tear" out of the drum. Customer service provided the technical data that allowed our welding contractor to make the repair."

The West Hempfield Project

In the spring of 2008, West Hempfield Township in Pennsylvania purchased the Asphalt Zipper AZ-500B to remove asphalt from existing roadway in order to construct trenches needed for sewer line installation.

According to Ron Youtz, township manager for West Hempfield, the Zipper was purchased because of its efficiency and its ability to make deep cuts in the road.

Youtz said, "This was particularly important for this project because the older roads in our community have been resurfaced several times and the asphalt is 8- to 10-inches deep. We looked at similar equipment but after attending several Asphalt Zipper demonstrations we determined this was the piece of equipment that would work best for us," stated Youtz.

Preparing the township trenches for sewer line installation is being done in four phases. The first phase was done between June 2008 and September 2008 and included a section of road 3000-feet long and 4-feet wide and eight- to 10-inches thick. A total of 700-tons of asphalt will be removed and stockpiled for future use as road base. The other phases are of similar size. The second phase set to start this summer. All work is being done by township employees.

Youtz added, "Purchasing the Asphalt Zipper was a very positive experience and included eight hours of on site training. So far we are pleased with its performance and have had no maintenance issues. In addition to the trench project, the machine is being used for many other purposes around the township, such as road repair and prepping for resurfacing."

Reclamation is an efficient and economical method to remove asphalt from existing roadway. The townships of West Hempfield and Plumstead found that the use of the Asphalt Zipper AZ-500B asphalt reclamation/recycling attachment improved productivity for both trench construction and road reconstruction by eliminating the need to saw cut, chunk, remove and haul the asphalt off site; thus, the cost and time spent on the job was reduced significantly. For more information on the AZ-500B visit www.asphaltzipper.com.



Asphalt Zipper model AZ-500 is operated by Plumstead Township Public Works crew member Scott Bowling (seated in rubber tire loader) and monitored by crew member Scott Schurr. The first of four passes is completed, grinding up the existing road surface to prepare it as the new road base prior to paving.