

# Case Study

### **Pennsylvania Aggregates and Concrete Association**



#### **QUICKVIEW**

- RCC proved to be a substantial savings to PPL.
- The project also featured fulldepth reclamation for the base.

## CONCRETE PRODUCER Casilio Concrete

## PLACEMENT CONTRACTOR Carl Bales Excavation

#### LOCATION Allentown, PA

## Roller Compacted Concrete Provides the Best and Most Cost-Effective Solution for PPL

#### THE SITUATION

Utility company, PPL, was in need of a refurbished 15-acre parking lot at their Lehigh service center. As an alternative to using a top asphalt layer, Carl Bales, Jr., of Carl Bales Excavation proposed roller compacted concrete (RCC).

#### THE SOLUTION

PPL needed something durable enough to withstand the heavy traffic that was also cost effective. Bales decided to propose roller compacted concrete because of a previous job he had worked on for Matheson Gas Advanced Gas Technologies that turned out extremely well. Ott Engineering, who was in charge of the job for PPL, inspected the Matheson Gas project. They were impressed with the results and decided to approach PPL about using RCC.

Price was also a big consideration for the project. Paving with RCC came in at \$875,000, cheaper than the cost of conventional concrete, \$1.2 million. RCC also came in lower than the bid for asphalt.

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Dave Zmijewski,
 Geo-Technology Associates, Inc.



#### THE SOLUTION (CONTINUED)

Roller compacted concrete (RCC) is a drier mix that is strong like concrete, but is put down like asphalt. Bales paved about three-quarters of the job in 2010 and will finish out the job this year. One concern on the project was how the RCC would withstand the winter. David Zmijewski of Geo-Technology Associates, Inc. said the RCC held up "unbelievably well" throughout the winter season after being exposed to over 500 tons of salt. "RCC opens up a door for us. The advantage is that it's strong like concrete, but you put it down like asphalt in a single lift," says Zmijewski. "I've run into issues with heavy truck traffic where concrete is too expensive and the asphalt doesn't hold up as well. RCC is a good system for those applications. It fills a niche."

RCC is becoming more popular among industrial and commercial sites because of its durability, ease of application and cost.





