PROJECT PROFILE: Roller Compacted Concrete



Case Study

Pennsylvania Aggregates and Concrete Association



QUICKVIEW

- Heavy truck traffic required
 strong, durable paving solution
 Company's successful history sing
 Roller Compacted Concrete (RCC)
 drove decision to utilize RCC for
 the project
- **CONCRETE PRODUCER** New Enterprise Stone & Lime Co., Inc.
- PLACEMENT CONTRACTOR New Enterprise Stone & Lime Co., Inc.

Roller Compacted Concrete Continues to Meet Customer Needs

THE SITUATION

Several years ago, Jason Strohm and the team at New Enterprise Stone & Lime Co., Inc. (NESL) were approached by a company seeking a paving solution at one of their facilities. The issue at hand was the constant heavy loading that dump trucks at the facility were placing on its roadways. Because of its ability to withstand high traffic loadings (350+ trucks per day) Roller Compacted Concrete (RCC) was the ideal choice. That 10" pavement continues to serve the company well.

RCC is an ultra-tough, no-slump concrete that is placed with conventional or high-density paving equipment and usually finished with double-drum rollers. RCC is a perfect marriage of strength, durability, and light reflectivity. It is constructed without the forms, dowels or steel reinforcing which is typically needed with conventional concrete, making it a strong, fast and economical solution.

In 2019, that same company, citing the need to resolve drainage and dust control issues at another location, again

sought the assistance of NESL. Given the success of RCC in its first application, it made sense to incorporate it into this project.

THE SOLUTION

Over 200 dump trucks daily, each in excess of 70,000 lbs., demand a pavement that will hold up. Given that loading and the sub-grade conditions on site, it was determined that the pavement thickness should be 7". To simplify the design process, NESL reached out to the Pennsylvania Aggregates and Concrete Association for the free <u>Design</u> <u>Assistance Program</u> it offers through the National Ready Mixed Concrete Association.

RCC projects may be supplied several ways: pug mill, portable RCC machines, central batch plants, and even dry batch plants. In this case a pug mill was used. Pug mills are an efficient, continuous means of supplying jobs on this order of magnitude. The pavement was placed using a high density paving machine.

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"We were pleased that the customer selected RCC for this project and confident it will serve them well for many years."

- Jason Strohm, New Enterprise Stone & Lime Co., Inc.







For more information on RCC, please click here.







