

"RCC is an intriguing material because it offers some of the advantages of both asphalt and concrete pavement. While it develops strength comparable to regular PCC, we feel it may be used by light traffic almost immediately. This is a tremendous advantage given the emphasis now being placed on minimizing traffic disruption during construction."

"Portland cement concrete paving is more durable and virtually maintenance free when compared to full depth asphalt, especially when utilized for industrial applications. After performing a design decision analysis between roller compacted concrete and bituminous paving, we determined that the best solution was to substitute roller compacted concrete paving for virtually all proposed paving. The capital cost in this particular application provided the client an estimated initial cost savings of 30% in the overall site paving package. Roller compacted concrete also provided shorter construction duration for paving activities and provided the client the maintenance benefits associated with traditional cast in place concrete."

"With the use of RCC for shoulder replacement, we consider the application of this material a viable solution for pavement management well into the future."

"While RCC is not the most architectural aesthetic finish, its serviceability and durability provides a very cost-effective heavy-duty pavement and is particularly suited to open storage, industrial, and cargo handling facilities."

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Chairman of Nigel Nixon & Partners, Inc.

# RCC Pavement

## ROLLER-COMPACTED CONCRETE

**Tough • Fast • Economical**

### A Value-Engineered Pavement

## How Can You Use RCC Pavement?

- Industrial Parking Areas
- Intermodal Transfer Facilities
- Industrial Access Roads
- Warehousing Facilities
- Highway Shoulders & Bases
- Manufacturing Facilities
- Composting Facilities
- Landfills & Transfer Stations
- Intersection Reconstruction
- Driveways
- Streets
- Roads



Portland Cement Association

[www.rccpavement.info](http://www.rccpavement.info)  
[www.cement.org/pavements](http://www.cement.org/pavements)

(770) 497-0079



American Concrete Pavement Association  
Southeast Chapter  
[www.pavementse.com](http://www.pavementse.com)



This innovative pavement combines strength & durability with ease of construction.

[www.rccpavement.info](http://www.rccpavement.info)

This innovative pavement combines strength and durability with ease of construction. The RCC mix, like any other concrete pavement, consists of cement, coarse and fine aggregates and water. Placement of this zero slump mix is typically done with an asphalt paving machine in lifts as thin as 5 inches and as thick as 9 inches. Multiple lifts are placed to achieve pavements to nearly any depth. Dump trucks transport the RCC and discharge it into conventional or high-density asphalt pavers, which place the material in layers up to 9 inches thick and 42 feet wide. RCC pavement gains its early strength from its high density. Therefore compaction is the most important stage of construction. Compaction begins immediately after placement and continues until the pavement meets density requirements. Curing, as with any concrete, insures proper strength gain.

The high strength of RCC pavement eliminates common and costly problems traditionally associated with other pavement types. RCC pavement resists rutting, withstands heavy concentrated loads, resists deterioration from fuel as well as hydraulic fluid spills and is immune to high and low temperature extremes.

## CONSTRUCTION



## ECONOMY



RCC is a high-performance pavement that is typically equal to or less than the cost of other conventional pavements. Low cost continues to draw engineers, owners and construction managers to RCC. It requires very little maintenance, resulting in further savings. RCC pavement drastically reduces maintenance-related business interruptions and customer inconvenience.

The General Motors' Saturn Auto Manufacturing facility in Spring Hill, TN has RCC pavements that span over 130 acres. The use of RCC pavement resulted in tremendous initial cost savings in addition to the maintenance cost savings over time.

In Lincoln, AL, paving at the Honda Motors facility consumed a large portion of the site work costs. The decision to use RCC pavement allowed them to realize a significant cost savings.

Mercedes-Benz in Vance, AL, Hyundai in Montgomery, AL, and BMW in Greer, SC also chose RCC for their facilities due to significant savings.

Saw cut joints into the RCC pavement maximize appearance and control crack location. Jointing can be eliminated to maximize economy without compromising performance.

RCC is basically produced in pug-mills, central mix and dry batch ready-mixed facilities.

## DURABILITY



## EASE OF PRODUCTION



## EASE OF PLACEMENT



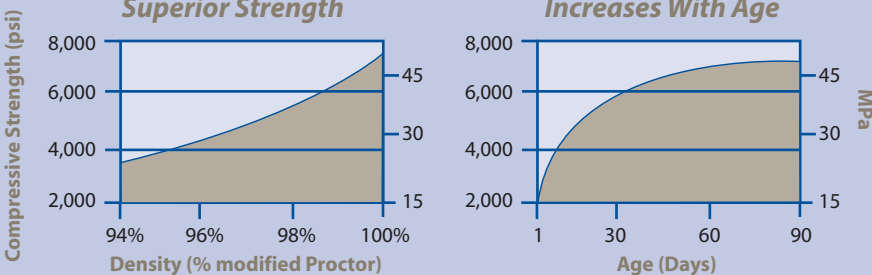
## OVERALL BENEFITS



- Strong, durable, light-colored surface
- Increased load capacity
- Eliminates rutting and subsequent repairs
- Fast, easy construction
- Economical to construct and own
- Long service life - minimal maintenance

High Density Ensures Superior Strength

RCC Strength Increases With Age



RCC requires no forms, finishing, reinforcement or joint sawing. It has a very low water-cement ratio, which is necessary to achieve the required zero-slump design. This mix design allows for quick and easy placement of RCC with a conventional asphalt paving machine. Density is then achieved with steel drum vibratory rollers. This allows for the ease of construction while providing the strength, durability and low maintenance of concrete. Low water-cement ratio allows for quick strength gains that translate into a quick return to traffic. RCC pavements can often be opened to traffic in as little as 24 hours after placement.

## Tough·Fast·Economical

These qualities have taken RCC pavement from specialized applications to mainstream pavement. Today, RCC is used for nearly any pavement application.