

Concrete . . . The Marathon



Material

Mr. Jeff Morris, owner of Rock Bridge Market and Marathon gas station in Gallatin, Tennessee, selected concrete pavement for his newest facility's parking and drive areas. An owner of multiple gas stations, Mr. Morris was familiar with the benefits of concrete over asphalt. "I have an Exxon in Hendersonville, Tennessee that is 12 years old with no problems, only minor cracks. I would have already had to reseal at least twice or resurface if I had used asphalt," Mr. Morris remarked. Relying on past experience, he chose concrete paving with confidence and ease for his Rock Bridge Market. "I used concrete [again] because it lasts longer, and I don't have to maintain it."

It is well documented that the service life of concrete is three times longer than asphalt. Rigid concrete pavements withstand excessive wear and tear over time. Concrete pavements spread point loads over a large area. In contrast, asphalt is a flexible pavement permitting the force of a point load to propagate directly into the subgrade

or subbase causing ruts and potholes. Gas and oil spills on petroleum based asphalt pavements result in severe deterioration of the binding agent, requiring costly repairs every five to ten years. Benefits of using portland cement based concrete pavement include its durability and resistance to gas and oil spills.

Garrott Brothers Continuous Mix, Inc. furnished 350 cubic yards of concrete. Pavement was placed eight inches thick in the drive areas and six inches thick in the parking areas. Mendoza Concrete Construction used wooden forms and common flatwork placement techniques to achieve proper grade. Curb and gutter was placed integrally with the pavement. A broom finish was utilized to add texture to the pavement surface following placement and prior to curing. Joints were saw-cut four to twelve hours after placement in 8' x 8' panels for proper crack control and to achieve aggregate interlock for load transfer. Steel reinforcement was not included in the pavement because it was not recommended by ACI 330R-08.

The Rock Bridge Market has a durable parking lot area with a long life span requiring only minimal repairs in the future. Mr. Morris can allocate his time and money toward other business ventures.

Reasons to choose concrete for your parking areas:

- Low maintenance
- No need for improved subbase such as crushed stone
- Installed first and can be used as a working platform for construction
- Curb and gutters can be placed monolithically with pavement
- High reflectivity can result in up to 50% energy savings
- Improves visibility at night
- Environmentally friendly components are cement, air, water, and sand
- Is recyclable
- Is regionally produced and does not contain foreign products such as oil
- Light color equals a cooler pavement, reducing urban heat islands around the building



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