Concrete Results

Concrete Overlays

The Challenge
After investing over $7 million in a major facelift for its Thorncreek Golf Course, the city of Thornton, CO was left with an existing 92,000 sq. ft. asphalt parking lot that had been neglected for years. Budgets and timeframe for construction were both tight, presenting a big challenge to city engineers.

The Solution
Working with NRMCA Vice President, Local Paving, Don Clem, P.E., and utilizing NRMCA’s Design Assistance Program, NRMCA member Dave Gray, GCC of America, developed a concrete overlay pavement design and life cycle cost analysis which demonstrated that a concrete overlay of the existing asphalt lot would cost slightly less than removing and replacing the asphalt, while providing significant savings to the city over a 30-year service life. In addition, the main drive, curb, gutter and sidewalk were also overlaid, creating a beautiful approach to the clubhouse with no increase in cost.

The Results
“The city specified a concrete pavement overlay of the asphalt lot due to speed of construction, which was a critical element to this project. The city also expects to save more than $110,000 over the next 30 years, due to reduced maintenance costs. And the bright concrete pavement announced to the community that the two-year renovation project was now complete, and the golf course was once again open for business.”

Richard Nickson, City of Thornton, CO

Thorncreek Golf Course
13555 Washington St, Thornton, CO

Design Factors:
- 3” and 4” concrete overlay
- Existing curb, gutter and sidewalk overlaid as well
- Tied into existing storm water inlets

Concrete Placement:
- 4,000 psi concrete w/macro fiber
- Laser Screed placement
- 5 feet O.C. joint spacing
- Early entry saw cut