

CPR – REBUILT TO LAST



>>> DIAMOND GRINDING & JOINT RESEALING

WHEN THE VILLAGE OF GLEN ELLYN — an affluent suburb of Chicago with a population of more than 25,000 — needed major road repairs on two main city streets, they sought a long-term solution. The resulting project, completed in 2006, spanned approximately 29 city blocks on two main roads, Oak Street and Western Avenue — both of which were 15 to 20 years old. The repairs on Oak Street were 12 city blocks, while the repairs on Western Avenue were approximately 16-18 city blocks.

The original pavement was constructed as an 8-inch, doweled jointed pavement that eventually developed 1/4-inch to 1/2-inch faulted transverse joints with deteriorating joint seals. The methods used to repair the road included full-depth repair, diamond grinding, and sawing and sealing of joints utilizing backer rod and silicone sealant. The project totaled 185,000 lineal feet of joint rehabilitation on both Oak Street and Western Avenue.

The Glen Ellyn Public Works Department chose Concrete Pavement Restoration (CPR) because the long-term result proved to be more cost-effective than alternative methods. Further, CPR allowed them to maintain local traffic patterns through most of the neighborhood streets. Alternatively, an asphalt overlay would have raised the

height of the road, reducing the gutter capacity and the monolithic curb reveal. Furthermore, the owner preferred the light reflective appearance of concrete to asphalt.

One of the key project challenges was the schedule. Repairs to Western Avenue had to be completed in time for the city's Fourth of July parade. Other issues included traffic control, as two lanes were required to be maintained through work zones, as well as foliage falling into the joints during the resealing process. In addition, both roads had numerous twists and turns and required heavy surface removal to restore smoothness in some areas.

A local resident irritated by the thumping noise from the vehicles crossing over the faulted joints commented on how pleased he is because he no longer hears the noise and is extremely happy with the end result.

"This project is a great example of how CPR can be used on a local road or city street to provide a long-term and cost-effective solution for preserving older concrete pavements," said Scott Eilken, Owner of Quality Saw and Seal. "This road is expected to last up to 10 more years before any additional repairs are needed."

TEAM MEMBERS

- Glen Ellyn, IL Public Works Department (Owner)
- Quality Saw and Seal (Patching, grinding, saw and seal of joints)
- Work Zone Safety (Traffic control and striping)
- Crafcro (Sealant supplier)
- K2 Diamond (Patch blade, widening blades, diamond grinding blade supplier)