

Structural Condition Assessment at Royal Centre IV (2010)

Background

Property Management at the Royal Centre IV office building in Alpharetta, GA contacted TEC Services, Inc. (TEC) and requested a proposal for condition assessment of the parking facility. The parking structure consists of four total levels of structured parking and is approximately 10 years old. The construction type is factory topped precast concrete.



Royal Centre IV.

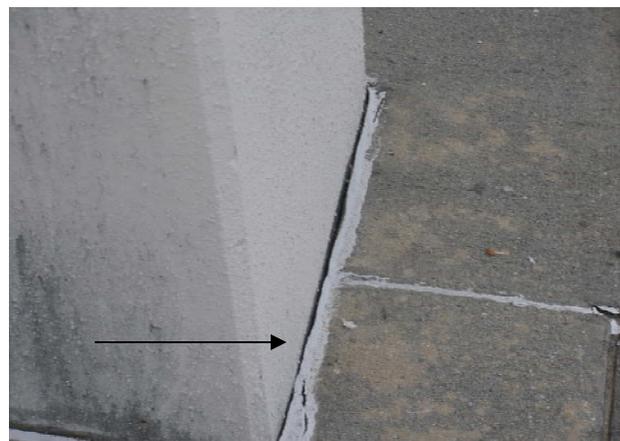
Services Provided

Upon project authorization, a TEC structural engineer discussed current maintenance procedures and specific concerns with representatives of the property management team. A two man TEC engineering team conducted a visual observation of structural conditions within the parking structure. A written report of our findings was prepared and included the following:

- A list of recommended immediate and maintenance related repairs
- Representative repair quantities
- An opinion of probable cost (The opinion of cost included a yearly phased budget for repairs for a period of five years from the date of our report.)
- Comments on preventative maintenance practices to improve the life expectancy of the parking deck.



Significant cracks and spalled areas were noted in several double tee beam stems, inverted tees, and L beams. Recommended repairs to these areas included epoxy injection of cracks greater than .016 inches, removing distressed concrete, cleaning any exposed reinforcing steel, and patching with an appropriate repair material. The crack in photo above was recommended for epoxy injection repair.



Cove Sealants around columns and perimeter pour strip sealants were missing in much of the parking deck. Cove sealants are recommended at the interface of vertical to horizontal elements to protect from rain runoff infiltration into cracks associated with these interfaces. Existing sealant joints throughout the parking deck were observed to be approaching the end of their service life. They were recommended to be removed and replaced. The photo above is an example of a cove sealant that was not missing but has reached the end of its service life.