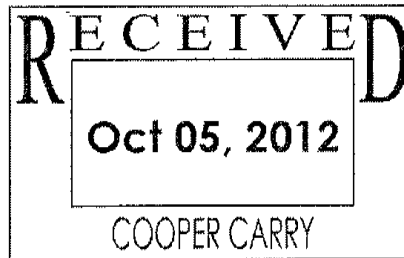


BRITTINGHAM & ASSOCIATES
STRUCTURAL ENGINEERS, LLC

October 4, 2012

COOPER CARRY ARCHITECTS
191 Peachtree Street, NE
Suite 2400
Atlanta, GA 30303-1770



Attn.: Andres Rubio

Re.: Hotel Ithaca - Adjacent Parking Deck Potential Reconstruction Techniques

Andres,

We write in response to questions regarding potential future rehabilitation procedures for the existing structured parking garage adjacent to the proposed Hotel Ithaca tower. Based on our study, any future efforts to rehabilitate the existing parking structure in areas next to the hotel can be accomplished, in total, on the parking garage side. The post-tensioned parking deck design at the elevated levels will drive most solutions, especially if reconstruction next to the hotel is needed. The most common reconstruction plans will likely include some of the following issues:

1. **FOUNDATION SETTLEMENT** : Foundation reconstruction is an unlikely scenario, unless foundation settlement is observed to be excessive. The solutions for access to foundations under duress will likely include soil stabilization techniques and/or a number of micro pile products that have been developed for tight site limitations. Temporary shores for the elevated structure that contributes load to the foundation in question is frequently required.
2. **COLUMN RECONSTRUCTION**: Concrete structures exposed to weather are normally excellent at resisting corrosion if properly designed and constructed. When corrosion is observed on a parking garage, it commonly occurs in areas at the base of the column where water drainage has been problematic over an extended period of time, or where salts have been repeatedly placed on the deck to melt ice. These conditions are easily remediated by correcting the water drainage issues and repairing the column in the areas using many varieties of products on the market. If significant structural integrity has been lost, the column may also need to be reinforced either internally or externally. In such cases the levels above the column will need to be shored from the top of the column in question down to the foundation level, under most circumstances, until all reconstruction procedures are complete.
3. **ELEVATED SLAB RECONSTRUCTION**: De-icing salts are the primary culprit of elevated concrete slab corrosion on parking garages. Normally, areas where corrosion has compromised structural integrity, demolition and replacement of the concrete is likely needed. Demolition of post-tensioned concrete typically requires decoupling of the post-tensioning tendons before reconstruction operations can begin. Decoupling of tendons can compromise the structural integrity of the elevated slab in every bay for the entire length of the tendon, and beyond. A thorough understanding of the post-tensioning scheme layout and design is necessary to determine the proper procedures for remediation.

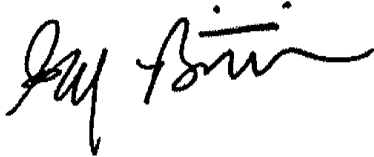
Temporary splices in tendons are commonly required for such conditions to keep from compromising the strength in large areas of the elevated structure away from areas of demolition and reconstruction. In some instances temporary supplementary structures, such as steel beams bolted to existing columns, can be used to reconstruct large floor plate areas where circumstances prohibit shoring below.

In summary, there are a number of reconstruction approaches that can be implemented for rehabilitation of existing parking structures next to other structures. Proper design and planning is always a must before such reconstruction begins. Fortunately, the existing parking structure next to the proposed Hotel Ithaca appears to be a candidate for most of the techniques commonly used today. As a result, we would anticipate that any reconstruction work necessary for the existing deck could be accomplished in the future within the footprint of the parking garage, and without any impact upon the adjacent hotel structure.

Please contact us with any questions or comments.

Sincerely,

BRITTINGHAM & ASSOCIATES
STRUCTURAL ENGINEERS, LLC



G. M. Brittingham, PE